



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

October 23, 2015

CERTIFIED MAIL
91 7199 9991 7032 6692 5762

Paul Geiger
PO Box 10000
Spring, TX 77389

RE: Approved Registration G70-A
G70-A173
SWN Production Company
Alice Edge Pad
Facility ID No. 069-00113

Dear Mr. Geiger:

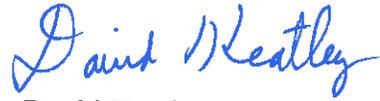
The Director has determined that the submitted Registration Application and proposed modification and operation of an oil and natural gas production facility demonstrates eligibility and compliance with the requirements, provisions, standards and conditions of General Permit G70-A and hereby grants General Permit registration authorizing the proposed activity.

General Permit G70-A can be accessed electronically at www.dep.wv.gov/daq/permitting/Pages/airgeneralpermit.aspx. 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. 1224 or David.J.Keatley@wv.gov.

Sincerely,



David Keatley
Permit Writer - NSR Permitting

Enclosures: Registration G70-A173

*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 Modification**



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-A173

Issued to:
SWN Production Company
Alice Edge Pad
069-00113

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

*William F. Durham
Director*

Issued: October 23, 2015

This permitting action supersedes and replaces R13-2939C.

Facility Location: Near Valley Grove, Ohio County, West Virginia

Mailing Address: 10000 Energy Drive
Spring, TX 77389

Facility Description: Natural Gas/Condensate Production Facility

NAICS Code: 211111

SIC Code: 1311

UTM Coordinates: 537.447 km Easting • 4,438.933 km Northing • Zone 17

Longitude Coordinate: -80.56066

Latitude Coordinate: 40.099853

Directions to Facility: From Interstate 70 east of Wheeling, WV, take Exit 5 and travel east on US RT 40. Continue straight on US RT 40 for approximately 6.8 miles to well pad entrance on the left, immediately after the bridge.

Description of Change: Installation and operation of: eleven (11) 1.0-mmBtu/hr GPUs, five (5) 0.5-mmBtu/hr heater treaters, two (2) 1.5-mmBtu/hr line heaters, three (3) 1.5 mmBtu/hr stabilizer heaters, eight (8) additional 400-bbl condensate tanks; two (2) 145-bhp engines, one (1) 622-bhp engine, one (1) 567-bhp engine, and one (1) 30-mmBtu/hr combustor. This application also seeks to remove of one (1) 23.6-bhp engine and one (1) 145-bhp engine.

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

Subject to 40CFR60, Subpart JJJJ? Yes, all four (4) engines.

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

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 (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-ENG5 And EU-ENG6	EP-ENG5 And EU-ENG6	Caterpillar G3306 NA Engine	NSCR	2015	145 (Each)	bhp	10, 13, 15
EU-MC1498	EP-MC1498	Caterpillar G3508 TALE AFR Engine	None	2015	622	bhp	10, 13, 15
EU-MC2322	EP-MC2322	Caterpillar G3508 TALE Engine	None	2015	567	bhp	10, 13, 15
EU-GPU1 Through EU-GPU11	EP-GPU1 Through EU-GPU11	Gas Production Unit Burners	N/A	2015	1.0 (Each)	MMBtu/hr	7
EU-HT1 Through EU-HT5	EP-HT1 Through EP-HT5	Heater Treaters	N/A	2015	0.5 (Each)	MMBtu/hr	7
EU-SH1 Through EU-SH3	EP-SH1 Through EP-SH3	Stabilizer Heaters	N/A	2015	1.5 (Each)	MMBtu/hr	7
EU-PILOT	EP-PILOT	Vapor Combustor Pilot	N/A	2015	150 (total)	scfh	
EU-TANKS-COND	EP-TANKS-COND	Twelve (12) Condensate Tanks	APC-COMB-TKLD	2015	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/ APC-COMB-TKLD	2015	12,264,000	gallon/yr	11, 14
EU-LOAD-PW	EP-LOAD-PW	Produced Water Truck Loading	Vapor Balance/ APC-COMB-TKLD	2015	68,985,000	gallon/yr	11, 14
APC-COMB-TKLD	APC-COMB-TKLD	Vapor Combustor	N/A	2015	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-ENG5 and EU-ENG6)	NOx, 92.58% CO, 85.15% HCHO, 76%	Non-Selective Catalyst Reduction	2015	-	-	10, 13, 15
APC-COMB-TKLD	98%	MRW Technologies, Inc.	2015	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?					No	-
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
47069000870000	47069001860000	47069001810000
47069001790000	47069001850000	47069001870000
47069001800000	47069001830000	47069001780000
47069001840000	47069001020000	

3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
EU-ENG5 and EU-ENG6	EP-ENG5 and EP-ENG6	Caterpillar G3306 NA (emissions from each)	Nitrogen Oxides	0.32	1.40
			Carbon Monoxide	0.64	2.80
			Volatile Organic Compounds	0.24	1.05
			Formaldehyde	0.02	0.09
EU-MC1498	EP-MC1498	Caterpillar G3508 TALE AFR	Nitrogen Oxides	2.74	12.00
			Carbon Monoxide	3.51	15.37
			Volatile Organic Compounds	1.10	4.82
			Formaldehyde	0.23	1.02
EU-MC2322	EP-MC2322	Caterpillar G3508 TALE	Nitrogen Oxides	2.50	10.95
			Carbon Monoxide	3.16	13.84
			Volatile Organic Compounds	1.03	4.51
			Formaldehyde	0.40	1.75
EU-GPU1 Through EU-GPU11	EP-GPU1 Through EP-GPU11	GPU Burner (Total Emissions)	Nitrogen Oxides	1.21	5.28
			Carbon Monoxide	0.99	4.29
EU-HT1 and EU-HT5	EP-HT1 and EP-HT5	Heater Treater (Total Emissions)	Nitrogen Oxides	0.30	1.30
			Carbon Monoxide	0.25	1.10
EU-SH1 and EU-SH3	EP-SH1 and EP-SH3	Stabilizer Heater (Total Emissions)	Nitrogen Oxides	0.51	2.22
			Carbon Monoxide	0.42	1.83
APC-COMB-TKLD, EU-TANKS-COND, EU-TANKS-PW, EU-PILOT	APC-COMB-TKLD	Vapor Combustor (Controlling Condensate Tanks and Produced Water Tanks)	Nitrogen Oxides	4.16	18.22
			Carbon Monoxide	8.28	36.28
			Volatile Organic Compounds	3.19	13.97
			Total Particulate Matter	0.09	0.39
			Benzene	<0.01	0.01
			Ethylbenzene	0.01	0.06
			n-Hexane	0.18	0.79
			Toluene	0.01	0.05
Xylenes	0.05	0.22			

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	68,985,000 gallons/year
APC-COMB-TKLD	APC-COMB-TKLD	Vapor Combustor	187 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-ENG5	After January 1, 2010	Yes	Yes	Yes
EU-ENG6	After January 1, 2010	Yes	Yes	Yes
EU-MC1498	February 25, 2010	Yes	Yes	No
EU-MC2322	January 24, 2007	Yes	Yes	No