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west virginia department of environmental protection

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**MEMORANDUM**

**To:** Beverly McKeone  
**From:** Jonathan Carney  
**Date:** April 18, 2017  
**Subject:** SWN Production Company, LLC - Michael Dunn Pad,  
Marshall County, WV  
**ID #:** 051-00227  
**APP #:** PD17-022

**BACKGROUND INFORMATION:**

SWN Production Company, LLC – Michael Dunn Pad is an oil and natural gas production facility. The well pad consists of four (4) well heads, two (2) Caterpillar G3306 NA Compressor Engines, one (1) Kubota DG972-E2 Engine, four (4) 1.0-MMBtu/hr gas production units, one (1) 0.5-MMBtu/hr Heater Treater, one (1) 15-MMscfd TEG Dehydration Unit, one (1) 0.75-MMBtu/hr TEG reboiler, two (2) 400-bbl condensate tanks, two (2) 400-bbl produced water tanks, condensate loading, produced water loading, and one (1) 15-MMBtu/hr vapor combustor with pilot.

The SWN Production Company, LLC – Michael Dunn Pad is currently registered under the G70-C General Permit.

The changes to the facility that SWN has proposed include the following:

- The throughput of the Triethylene Glycol (TEG) Dehydration Unit has been increased from 15.0 -MMscfd to 20.0 MMscfd.
- The safety factor added to the TEG Dehydration Unit criteria and HAP emissions has been decreased from 20% to 15%
- Vapor combustor emissions have been revised based on the change in dehydration unit throughput.

The change in emissions estimates for the facility are as follows:


Pollutant	PM			PM10			VOCs			CO			NOx			HAPs		
	lb/hr	tpy	lb/day	lb/hr	tpy	lb/day	lb/hr	tpy	lb/day	lb/hr	tpy	lb/day	lb/hr	tpy	lb/day	lb/hr	tpy	lb/day
Current	1.56	5.28	37.44	1.56	5.28	37.44	9.48	41.50	227.52	11.45	50.16	274.8	3.60	15.79	86.4	0.89	3.93	21.36
Proposed	1.56	5.28	37.44	1.56	5.28	37.44	9.34	40.93	224.16	11.45	50.16	274.8	3.60	15.79	86.4	0.88	3.86	21.12
Total	0.00	0.00	0.00	0.00	0.00	0.00	(0.14)	(0.57)	(3.36)	0.00	0.00	0.00	0.00	0.00	0.00	(0.01)	(0.07)	0.24

**RECOMMENDATION:**

The proposed changes to the facility are not subject to any substantive requirements.

The emissions calculations provided in the application show that the proposed changes do not have the potential to discharge more than six (6) pounds per hour and ten (10) tons per year or 144 pounds per calendar day, of any regulated air pollutant.

With the changes in emissions, the facility will still be in compliance with the emission caps of the G70 general permit. There is nothing that needs to be changed in the applicant's general permit registration. No permit is needed.

  
Jonathan Carney  
Engineer

April 18, 2017  
Date