

**Environmental Compression Services, Inc.**

WWW.ENVIRCOMP.COM

33 Spruce Lane

Burgettstown, PA 15021-2728

(724) 272-5734 – Mobile

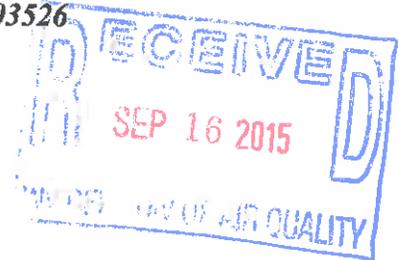
(724) 899-3103 – Office / Residence

bmonroe@atc-pa.com

WWW.ENVIRCOMP.COM

Environmental Laboratory Registration# 63-03526

June 30, 2015



West Virginia –Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV25304

Attention: William T. Rothwell II P.E. - Engineer

Reference: General Permit Application G70-A  
Goshorn 1H-4H Well Pad  
Plant ID 051-00214  
Determination # PD15-025

Dear Mr. Rothwell,

Environmental Compression Services, Inc. would like to submit this General Permit G70-A application on behalf of Trans Energy, Inc. for an Oil & Gas Facility identified as Goshorn 1-H-4H Well Pad.

The General Permit application was requested as per a Permit Applicability Determination in supporting documents (Attachment P). Enclosed please find three copies of the G70-A General Permit Registration for a Construction or an "After-the-Fact" well site and associated production equipment. Emission calculations for the summary of regulated air pollutants are the result of the operational well pad.

If you have any questions or concerns, please contact me at any of this phone numbers listed above.

Sincerely,

William M. Monroe  
President

Enclosures

Trans Energy Inc  
Goshorn Wellpad  
051-00214  
G70-A176  
Roy Kees

Trans Energy, Inc.  
PO Box 393  
St. Marys, WV 26170

Phone: (304) 684-7053  
Fax: (304) 684-3658  
E-mail: [lesliegearhart@transenergyinc.com](mailto:lesliegearhart@transenergyinc.com)

## GENERAL PERMIT APPLICATION G70-A

*Construction/After-the-Fact/as per Permit Determination PD15-025*

### ***Goshorn 1H-4H Well Pad 051-00214/ PD15-025***

*Submitted To: West Virginia Department of Environmental Protection  
Office of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304*

<i>General Permit Application Fee – Construction</i>	<i>\$ 500.00</i>
<i>NSPS Fee</i>	<i>\$1,000.00</i>
<i>NESHAP Fee</i>	<i><del>\$2,500.00</del> - NA</i>
<b>Total</b>	<b>\$1,500.00</b>

~~Total Enclosed \$4,000.00 payable to: "WVDEP – Division of Air Quality"~~

Prepared by: Environmental Compression Services, Inc.

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[bmonroe@atc-pa.com](mailto:bmonroe@atc-pa.com)

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Environmental Laboratory Registration# 63-03526

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Table of Contents

Attachment A	Current Business Certificate
Attachment B	Process Description
Attachment C	Description of Fugitive Emissions - NA
Attachment D	Process Flow Diagram
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Attachment H	Air Pollution Control Device Data Sheet - NA
Attachment I	Emission Calculations
Attachment J	Legal Advertisement
Attachment K	Electronic Submittal – NA
Attachment L	General Permit Application Fee \$500 + \$1000 NSPS + <del>\$2500 NESHAP</del> (\$1,500 Total)
Attachment M	Siting Waiver Criteria – NA
Attachment N	Material Safety Data Sheets – NA
Attachment O	Emission Summary Sheets
Attachment P	Other Supporting Documents



WEST VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 DIVISION OF AIR QUALITY  
 601 57<sup>th</sup> Street, SE  
 Charleston, WV 25304  
 Phone: (304) 926-0475 • www.dep.wv.gov/daq

**APPLICATION FOR GENERAL PERMIT REGISTRATION**  
 CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE  
 A STATIONARY SOURCE OF AIR POLLUTANTS

- CONSTRUCTION     MODIFICATION     RELOCATION     CLASS I ADMINISTRATIVE UPDATE  
 CLASS II ADMINISTRATIVE UPDATE

**CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:**

- |   |   |
|---|---|
| <input type="checkbox"/> <b>G10-D</b> – Coal Preparation and Handling                                   | <input type="checkbox"/> <b>G40-C</b> – Nonmetallic Minerals Processing                             |
| <input type="checkbox"/> <b>G20-B</b> – Hot Mix Asphalt   | <input type="checkbox"/> <b>G50-B</b> – Concrete Batch  |
| <input type="checkbox"/> <b>G30-D</b> – Natural Gas Compressor Stations                                 | <input type="checkbox"/> <b>G60-C</b> – Class II Emergency Generator                                |
| <input type="checkbox"/> <b>G33-A</b> – Spark Ignition Internal Combustion Engines                      | <input type="checkbox"/> <b>G65-C</b> – Class I Emergency Generator                                 |
| <input type="checkbox"/> <b>G35-A</b> – Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) | <input checked="" type="checkbox"/> <b>G70-A</b> – Class II Oil and Natural Gas Production Facility |

**SECTION I. GENERAL INFORMATION**

1. Name of applicant (as registered with the WV Secretary of State's Office): <b>Trans Energy, Inc.</b>		2. Federal Employer ID No. (FEIN): <b>93-0997412</b>	
3. Applicant's mailing address: <b>PO Box 393</b> <b>St. Marys, WV 26170</b>		4. Applicant's physical address: <b>210 Second Street</b> <b>St. Marys, WV 26170</b>	
5. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
6. WV BUSINESS REGISTRATION. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, provide a copy of the Certificate of Incorporation/ Organization / Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A. IF NO, provide a copy of the Certificate of Authority / Authority of LLC / Registration (one page) including any name change amendments or other Business Certificate as Attachment A.			

**SECTION II. FACILITY INFORMATION**

7. Type of plant or facility (stationary source) to be constructed, modified, relocated or administratively updated (e.g., coal preparation plant, primary crusher, etc.): <b>Natural Gas and Oil Production Facility</b>	8a. Standard Industrial Classification Classification (SIC) code: <b>1311</b>	AND	8b. North American Industry System (NAICS) code: <b>211111</b>
9. DAQ Plant ID No. (for existing facilities only): <b>051-00214</b>	10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): <b>PD15-025</b>		

**A: PRIMARY OPERATING SITE INFORMATION**

11A. Facility name of primary operating site:  <u>Goshorn 1H-4H Well Pad</u>	12A. Address of primary operating site:  Mailing: <u>NA</u> Physical: <u>State Route 62 / Long Road – See Map</u>	
13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <span style="float:right"><input checked="" type="checkbox"/> YES   <input type="checkbox"/> NO</span> – IF YES, please explain: <u>Trans Energy is leasing the mineral rights for this site</u>  – IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.		
14A. – For Modifications or Administrative Updates at an existing facility, please provide directions to the present location of the facility from the nearest state road; – For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a MAP as Attachment F.  <b>I – 70W to Route 2 South into Moundsville, WV, Take SR 21 East to SR 62 South, follow 1.6 miles to a right onto Long Road, follow for 0.3 miles to a left turn onto lease road. Follow lease road to well pad.</b>		
15A. Nearest city or town: <b>Cameron</b>	16A. County: <b>Marshall</b>	17A. UTM Coordinates: Northing (KM): <u>4407.3808</u> Easting (KM): <u>532.9117</u> Zone: <u>17S</u>
18A. Briefly describe the proposed new operation or change (s) to the facility: <b>Existing Operating Well Pad / Permitting Purposes</b>		19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: <u>39.81578</u> Longitude: <u>80.61547</u>

**B: 1<sup>ST</sup> ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits)**

11B. Name of 1 <sup>st</sup> alternate operating site:  _____ _____	12B. Address of 1 <sup>st</sup> alternate operating site:  Mailing: _____ Physical: _____ _____ _____
13B. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <span style="float:right"><input type="checkbox"/> YES   <input type="checkbox"/> NO</span> – IF YES, please explain: _____  – IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.	
14B. – For Modifications or Administrative Updates at an existing facility, please provide directions to the present location of the facility from the nearest state road; – For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a MAP as Attachment F.  _____ _____ _____	

15B. Nearest city or town:	16B. County:	17B. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
18B. Briefly describe the proposed new operation or change (s) to the facility:		19B. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____

**C: 2<sup>ND</sup> ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits):**

11C. Name of 2 <sup>nd</sup> alternate operating site: _____	12C. Address of 2 <sup>nd</sup> alternate operating site: Mailing: _____ Physical: _____
---	---

13C. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site?  YES  NO

– IF YES, please explain: \_\_\_\_\_

– IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.

14C. — For Modifications or Administrative Updates at an existing facility, please provide directions to the present location of the facility from the nearest state road;

– For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a MAP as Attachment F.

\_\_\_\_\_

\_\_\_\_\_

15C. Nearest city or town:	16C. County:	17C. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
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18C. Briefly describe the proposed new operation or change (s) to the facility:	19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____
---	--

20. Provide the date of anticipated installation or change:  NA  <input type="checkbox"/> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: :  NA – In Operation since 4/2012	21. Date of anticipated Start-up if registration is granted:  Operating
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22. Provide maximum projected Operating Schedule of activity/activities outlined in this application if other than 8760 hours/year. (Note: anything other than 24/7/52 may result in a restriction to the facility's operation).

Hours per day 24 Days per week 7 Weeks per year 52 Percentage of operation 100%

**SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS**

23. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).

24. Include a Table of Contents as the first page of your application package.

All of the required forms and additional information can be found under the Permitting Section (General Permits) of DAQ's website, or requested by phone.

25. Please check all attachments included with this permit application. Please refer to the appropriate reference document for an explanation of the attachments listed below.

- ATTACHMENT A : CURRENT BUSINESS CERTIFICATE
- ATTACHMENT B: PROCESS DESCRIPTION
- ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS
- ATTACHMENT D: PROCESS FLOW DIAGRAM
- ATTACHMENT E: PLOT PLAN
- ATTACHMENT F: AREA MAP
- ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM
- ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS
- ATTACHMENT I: EMISSIONS CALCULATIONS
- ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT
- ATTACHMENT K: ELECTRONIC SUBMITTAL
- ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE
- ATTACHMENT M: SITING CRITERIA WAIVER
- ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS)
- ATTACHMENT O: EMISSIONS SUMMARY SHEETS
- OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.)

Please mail an original and two copies of the complete General Permit Registration Application with the signature(s) to the DAQ Permitting Section, at the address shown on the front page of this application. Please DO NOT fax permit applications. For questions regarding applications or West Virginia Air Pollution Rules and Regulations, please refer to the website shown on the front page of the application or call the phone number also provided on the front page of the application.

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation

FOR A PARTNERSHIP

I certify that I am a General Partner

FOR A LIMITED LIABILITY COMPANY

I certify that I am a General Partner or General Manager

FOR AN ASSOCIATION

I certify that I am the President or a member of the Board of Directors

FOR A JOINT VENTURE

I certify that I am the President, General Partner or General Manager

FOR A SOLE PROPRIETORSHIP

I certify that I am the Owner and Proprietor

I hereby certify that (please print or type) Leslie A. Gearhart is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Office of Air Quality immediately, and/or,

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible

Signature  (please use blue ink) Responsible Official Date 9-14-15

Name & Title Leslie A. Gearhart – Vice President of Operations (please print or type)

Signature \_\_\_\_\_ (please use blue ink) Authorized Representative (if applicable) Date \_\_\_\_\_

Applicant's Name Trans Energy, Inc.

Phone & Fax (304)-684-7053 Phone (304) 684-3658 Fax

Email lesliegearhart@transenergyinc.com

**ATTACHMENT A**

**Current 2015 West Virginia Business Certificate Place Here  
(i.e.: Certificate of Incorporation/organization/Limited Partnership – ONE PAGE ONLY)**

FILED  
IN THE OFFICE OF THE  
SECRETARY OF STATE OF THE  
STATE OF NEVADA

# Articles of Incorporation

(PURSUANT TO NRS 78)

STATE OF NEVADA

Filing fee: \$175.00

PPH

Receipt #: C-97028

FILED BY:  
LOENARD E. NEILSON  
455 SO. 300 EAST, STE. 300  
SALT LAKE CITY, UT 84111

NOV 05 1993

DEPT. A LAW SECRETARY OF STATE

013796-93

OFFICE OF THE  
Secretary of State  
Capitol Complex  
Carson City, Nevada 89710  
Telephone (702) 687-5203

(For filing office use)

(For filing office use)

**IMPORTANT: Read instructions on reverse side before completing this form.  
TYPE OR PRINT (BLACK INK ONLY)**

NAME OF CORPORATION: TRANS ENERGY, INC.

RESIDENT AGENT: (designated resident agent in Nevada where process may be served)

Name of Resident Agent: The Corporation Trust Company of Nevada

Mailing Address: 1 East First Street, Reno, Nevada 89501

Street No. Street Name City Zip

SHARES: (number of shares the corporation is authorized to issue)

Number of shares with par value: 30,000,000 Par value: \$.001 Number of shares without par value: 0

GOVERNING BOARD: shall be styled as (check one):  Directors  Trustees

The FIRST BOARD OF DIRECTORS shall consist of one members and the names and addresses are as follows:

Name	Address	City/State/Zip
<u>LOREN E. BAGLEY</u>	<u>210 Second Street, St. Marys, WV</u>	<u>26170</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

PURPOSE (optional- see reverse side): The purpose of the corporation shall be:

To operate and own oil and gas properties and pipelines and other related energy businesses.

PERSONAL LIABILITY (pursuant to NRS 78.037):

Eliminating or limiting the personal liability of directors, officers and stockholders (check one):  Accept  Decline

The personal liability of the directors, officers and stockholders shall be (check one)  eliminated or  limited for damages for breach of fiduciary duty, but must not eliminate/limit the liability of a director or officer for: (a) acts or omissions which involve intentional misconduct, fraud or a knowing violation of law; or (b) the payment of distributions in violation of NRS 78.300.

OTHER MATTERS: Any other matters to be included in these articles may be noted on separate pages and incorporated by reference herein as a part of these articles: Number of pages attached 0.

SIGNATURES OF INCORPORATORS: The names and addresses of each of the incorporators signing the articles: (signatures must be attached)

Loren E. Bagley  
Signature  
210 Second Street, St. Marys, WV 26170  
Address City/State/Zip

Subscribed and sworn to before me this 9th day of  
September, 1993.

\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Address City/State/Zip  
\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Address City/State/Zip

Henry A. Lovelace  
Notary Public  
Notary Public, State of Nevada  
SHEPHERD BOOKS, STAMP or seal)  
PT. 3  
ST. MARYS, W. VA. 26170  
My Commission Expires February 11, 1997

Certificate of Acceptance of Appointment of Resident Agent

The Corporation Trust Company of Nevada hereby accept appointment as Resident Agent for the above named corporation.

Mavis S. Surabhi  
Special Assistant Secretary

RECEIVED  
SEP 24 1993  
Secretary of State  
Date 9-17-93

STATE OF NEVADA  
Secretary of State  
I hereby certify that this is a true and  
complete copy of the document as filed  
in this office.

MAY 15 2003

*Dean Heller*  
Dean Heller

By *Dean Heller*

## ATTACHMENT B

### DETAILED PROCESS DESCRIPTION

Natural Gas (methane, ethane, propane, etc.) comes from Four (4) high pressure wells and are piped to suction field separators & Gas Processing Units which removes most of the water entrained in the gas stream by disturbance of the gas flow inside the separators, the water and trace amounts of Oil/Condensate is dumped out of the separators using high pressure gas to a Two (2) 400 barrel (16,800 gallons/tank), Four (4) 210 barrel (8820 gallons/tank) and one (1) 100 barrel (4200 gallons) steel holding tanks.

SITE Equipment (See Flow Diagram) will entail Four (4) well heads, Four (4) GPU/Separators and Two (2) 400 barrel & Four (4) 210 barrel storage tanks for used water and small amount of condensate from the wells that is in the gas stream.

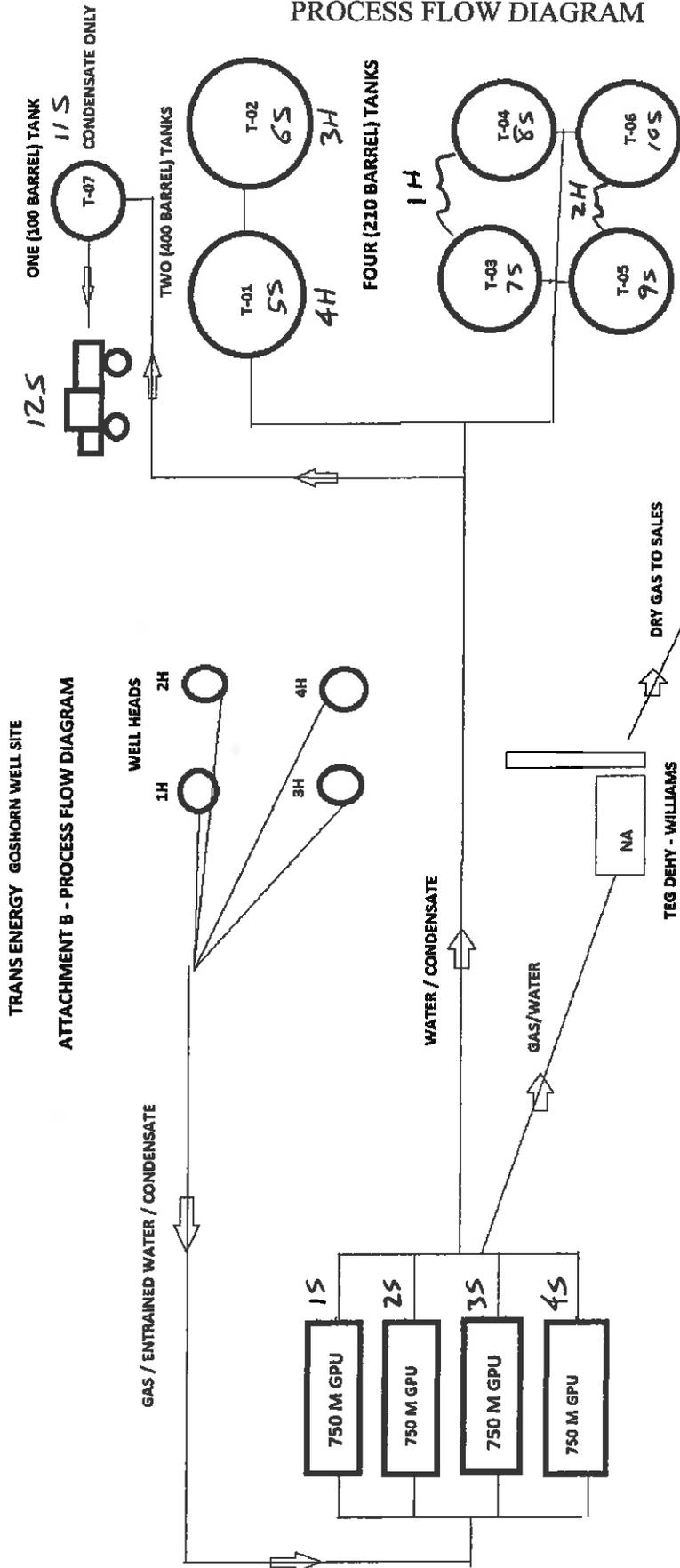
Similar Samples of the fluid (Water & small amount of condensate) were taking at common type well at a sample port before the dump valve and analyzed to determine a GWR (Gas to Water Ratio) this data was used to calculate VOC emission from a water flash to the tanks. The GPU emissions were determined using AP-42 values for heat input of 3.0 MMBTU/hr for all GPU's. Tanks 4.09d was used to determine working & breathing emissions, and Truck Load loss was determined by standard calculations and attached and PTE was determined using NO capture efficiency for NSPS Subpart XX was used because of PTE.

#### Sources for Emissions:

- Four (4) GPUs
- Two (2) 400 barrel tanks – Working/Standing (Breathing)/ Flash Loss
- Four (4) 210 barrel tanks– Working/Standing (Breathing)/ Flash Loss
- One (1) 100 barrel tank– Working/Standing (Breathing)/ Flash Loss
- Truck Load Loss
- TEG Dehydrator – Not Applicable – Owned and Permitted by Williams Pipeline

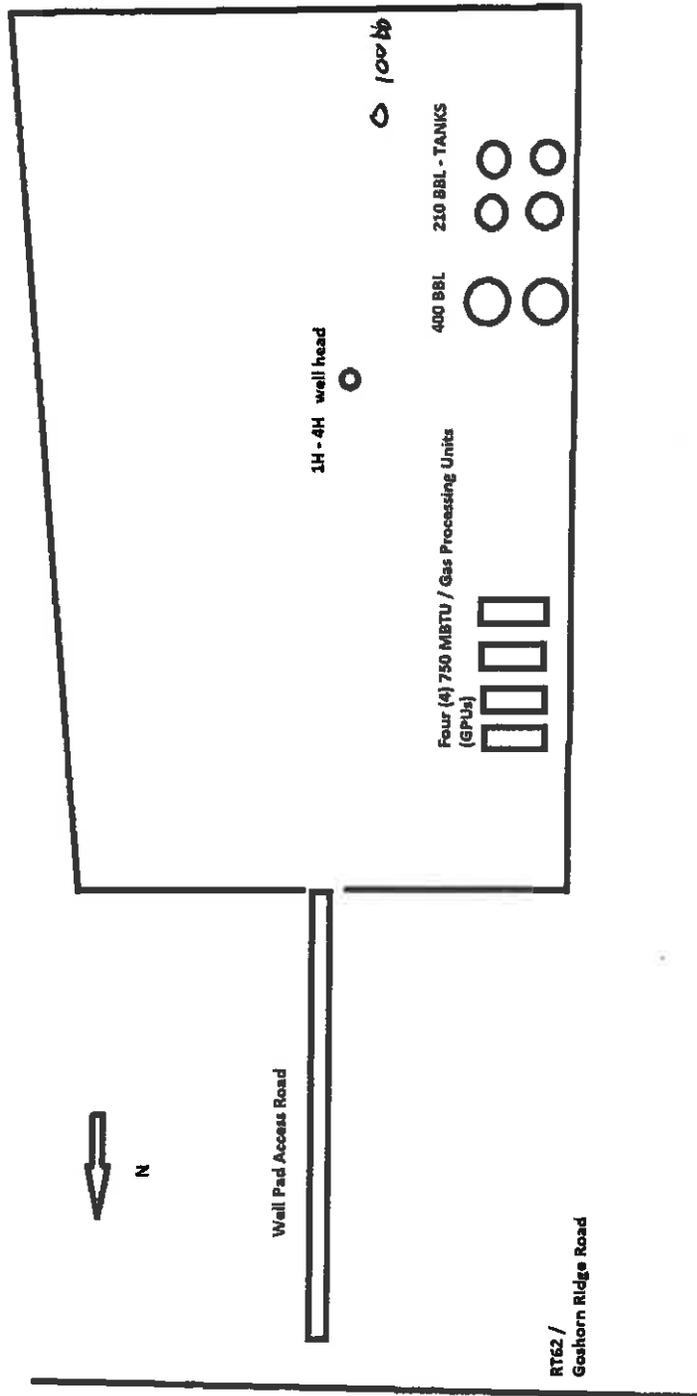
ATTACHMENT D

PROCESS FLOW DIAGRAM



ATTACHMENT E

PLOT PLAN



ATTACHMENT E

PLOT PLAN

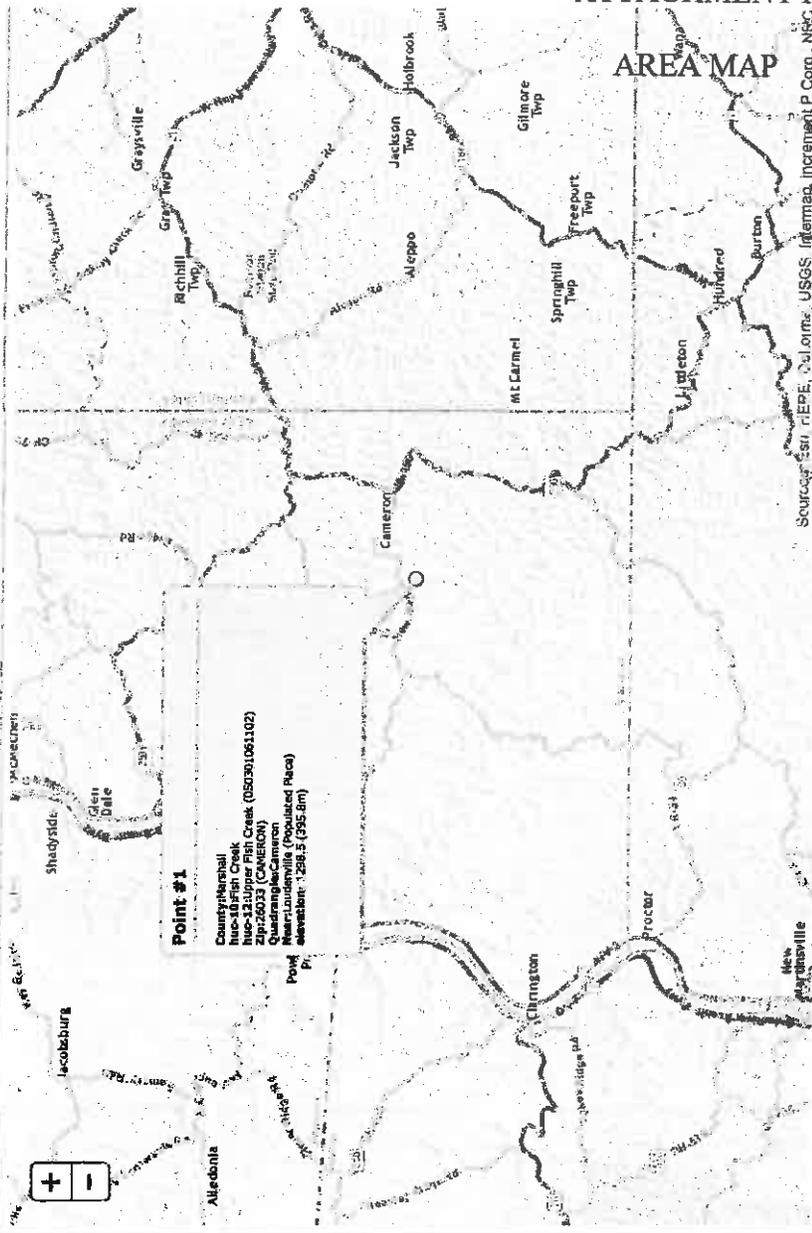


Imagery ©2015 DigitalGlobe, Map data ©2015 Google, 50 ft

39°48'56.8"N 80°36'55.7"W  
©2015 Google



ATTACHMENT F  
AREA MAP



input coordinates

enter comma delimited coordinates, examples:  
 36.15 90.1 -81.25 15.2 (lat, lon as degrees, minutes, seconds)  
 36.123456 -81.123456 (lat, lon as decimal degree)  
 500000, 4100000 (UTM as easting, northing)  
 1987854.32, 364123.45 (WV state plane as easting, northing)

39.81576, -80.81547

Lat/Lon WGS 1984

Convert  zoom to point

output coordinates

532911.7, 4407380.8

UTM NAD83 Zone 17N

Google Maps

history

1,38 016780, -80.815470,LL WGS84(61150),52911.7,4407380.8,UTM17N N,UD3(CORS96)

notes about datum conversions

Datum conversions between all realizations of NAD17, NAD83, and WGS84 are not practical, or sometimes not strictly possible. Many of the issues are associated with the inability to convert between the original realization of NAD83 and more recent realizations. While error could be reduced by introducing an intermediate HARN conversion, separate transformations would have to be implemented for each state, which significantly increases the complexity of the application. Therefore datum conversions include a few built-in assumptions:

clear markers

street map image topo

ATTACHMENT G

EMISSION UNIT DATA SHEETS / G70-A APPLICABILITY FORMS

**General Permit G70-A Registration  
 Section Applicability Form**

General Permit G70-A was developed to allow qualified applicants to seek registration for a variety of sources. These sources include natural gas well affected facilities, storage tanks, natural gas-fired compressor engines (RICE), natural gas producing units, natural gas-fired in-line heaters, pneumatic controllers, heater treaters, tank truck loading, glycol dehydration units, completion combustion devices, flares, enclosed combustion devices, and vapor recovery systems. All registered facilities will be subject to Sections 1.0, 2.0, 3.0, and 4.0.

General Permit G70-A allows the registrant to choose which sections of the permit they are seeking registration under. Therefore, please mark which additional sections that you are applying for registration under. If the applicant is seeking registration under multiple sections, please select all that apply. Please keep in mind, that if this registration is approved, the issued registration will state which sections will apply to your affected facility.

Section 5	Natural Gas Well Affected Facility	<input checked="" type="checkbox"/>
Section 6	Storage Vessels*	<input checked="" type="checkbox"/>
Section 7	Gas Producing 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 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 type="checkbox"/>
Section 14	Control Devices not subject to NSPS, Subpart OOOO	<input type="checkbox"/>
Section 15	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40CFR63, Subpart ZZZZ)	<input 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"/>

\* Applicants that are subject to Section 6 may also be subject to Section 12 if the applicant is subject to the NSPS, Subpart OOOO control requirements or the applicable control device requirements of Section 14.

\*\* Applicants that are subject to Section 10 may also be subject to the applicable RICE requirements of Section 13 and/or Section 15.

\*\*\* Applicants that are subject to Section 11 may also be subject to control device requirements of Section 14.



**G70-A EMISSIONS SUMMARY SHEET**

Emission Point ID No.	Emission Point Type <sup>1</sup>	Emission Unit Vented Through This Point		Air Pollution Control Device		All Regulated Pollutants - Chemical Name/CAS <sup>2</sup> (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions <sup>3</sup>		Maximum Potential Controlled Emissions <sup>4</sup>		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used <sup>5</sup>
		ID No.	Source	ID No.	Device Type		lb/hr	ton/yr	lb/hr	ton/yr		
1S-4S	Vert	1E-4E	Stack	NA	NA	See Attach I					Gas	AP-42
5S-10S	Vert Stack	5E-10E	Stack	NA	NA	VOC	0.51	2.25	0.51	2.25	Gas	Tanks 4.09d
11S	Hose connect	11E	Hose	NA	NA	VOC	1.196	5.24	1.196	5.24	Gas	GOR

The EMISSION SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSIONS SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

<sup>1</sup> Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

<sup>2</sup> List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS<sub>2</sub>, VOCs, H<sub>2</sub>S, Inorganics, Lead, Organics, O<sub>3</sub>, NO, NO<sub>2</sub>, SO<sub>2</sub>, SO<sub>3</sub>, all applicable Greenhouse Gases (including CO<sub>2</sub> and methane), etc. DO NOT LIST H<sub>2</sub>, H<sub>2</sub>O, N<sub>2</sub>, O<sub>2</sub>, and Noble Gases

<sup>3</sup> Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

<sup>4</sup> Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

<sup>5</sup> Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; M = modeling; O = other (specify).

**G70-A EMISSIONS SUMMARY SHEET**

Emission Point ID No.	Emission Point Type	Emission Unit Vented Through This Point		Air Pollution Control Device		All Regulated Pollutants - Chemical Name/CAS <sup>2</sup>  (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions <sup>3</sup>		Maximum Potential Controlled Emissions <sup>4</sup>		Emission Form or Phase  (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used <sup>5</sup>
		ID No.	Source	ID No.	Device Type		lb/hr	ton/yr	lb/hr	ton/yr		
1S-4S (GPUs)	Vert	1E-4E	Stack	NA	NA	See Attach 1					Gas	AP-42
5S-11S (Tanks)	Vert Stack	5E-11E	Stack	NA	NA	VOC	0.51	2.25	0.51	2.25	Gas	Tanks 4.09d GOR
12S	Hose connect	12E	Hose	NA	NA	VOC	1.196	5.24	1.196	5.24	Gas	Load Loss Formula
Total						VOC	1.71	7.48				

The EMISSION SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSIONS SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

<sup>1</sup> Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

<sup>2</sup> List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS<sub>2</sub>, VOCs, H<sub>2</sub>S, Inorganics, Lead, Organics, O<sub>3</sub>, NO, NO<sub>2</sub>, SO<sub>2</sub>, SO<sub>x</sub>, all applicable Greenhouse Gases (including CO<sub>2</sub> and methane), etc. DO NOT LIST H<sub>2</sub>, H<sub>2</sub>O, N<sub>2</sub>, O<sub>2</sub>, and Noble Gases

<sup>3</sup> Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

<sup>4</sup> Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

<sup>5</sup> Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; M = modeling; O = other (specify).

## NATURAL GAS WELL AFFECTED FACILITY DATA SHEET

*Complete this data sheet if you are the owner or operator of a gas well affected facility for which construction, modification, or reconstruction commenced after August 23, 2011. This form must be completed for natural gas well affected facilities regardless of when flowback operations occur (or have occurred).*

Please provide the API number(s) for each NG well at this facility:	
047-051-01476 Goshorn 3H	
047-051-01605 Goshorn 4H	
047-051-01475 Goshorn 2H	
047-051-01409 Goshorn 1H	

*Note: This is the same API well number(s) provided in the well completion notification and as provided to the WVDEP, Office of Oil and Gas for the well permit. The API number may be provided on the application without the state code (047).*

*Every oil and gas well permitted in West Virginia since 1929 has been issued an API (American Petroleum Institute) number. This API is used by agencies to identify and track oil and gas wells.*

*The API number has the following format: 047-001-00001*

*Where,*

*047 = State code. The state code for WV is 047.*

*001 = County Code. County codes are odd numbers, beginning with 001 (Barbour) and continuing to 109 (Wyoming).*

*00001 = Well number. Each well will have a unique well number.*

## STORAGE VESSEL EMISSION UNIT DATA SHEET (Produced Water)

*Provide the following information for each new or modified bulk liquid storage tank.*

### I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name: Goshorn Produced Water	2. Tank Name Tanks 5E – 10E
3. Emission Unit ID number 5S & 10S	4. Emission Point ID number 5E & 6E
5. Date Installed or Modified ( <i>for existing tanks</i> ). 2012	6. Type of change: <input type="checkbox"/> New construction <input type="checkbox"/> New stored material <input checked="" type="checkbox"/> Other
7A. Description of Tank Modification ( <i>if applicable</i> ) Existing Tanks	
7B. Will more than one material be stored in this tank? <i>If so, a separate form must be completed for each material.</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
7C. Provide any limitations on source operation affecting emissions. (production variation, etc.)	

### II. TANK INFORMATION (required)

8. Design Capacity ( <i>specify barrels or gallons</i> ). Use the internal cross-sectional area multiplied by internal height. QTY (2) – 400 Barrel Tanks, QTY (4) – 210 Barrel Tanks	
9A. Tank Internal Diameter (ft.) 12 / 10	9B. Tank Internal Height (ft.) 20 / 15
10A. Maximum Liquid Height (ft.) 18 / 13	10B. Average Liquid Height (ft.) 10
11A. Maximum Vapor Space Height (ft.) 18 / 13	11B. Average Vapor Space Height (ft.) 10
12. Nominal Capacity ( <i>specify barrels or gallons</i> ). This is also known as “working volume. 400 / 210	
13A. Maximum annual throughput (gal/yr) 5,183,556	13B. Maximum daily throughput (gal/day) 14,201
14. Number of tank turnovers per year 75	15. Maximum tank fill rate (gal/min) 168
16. Tank fill method <input type="checkbox"/> Submerged <input checked="" type="checkbox"/> Splash <input type="checkbox"/> Bottom Loading	
17. Is the tank system a variable vapor space system? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, (A) What is the volume expansion capacity of the system (gal)? (B) What are the number of transfers into the system per year?	
18. Type of tank (check all that apply): <input checked="" type="checkbox"/> Fixed Roof <input checked="" type="checkbox"/> vertical <input type="checkbox"/> horizontal <input type="checkbox"/> flat roof <input type="checkbox"/> cone roof <input type="checkbox"/> dome roof <input type="checkbox"/> other (describe)  <input type="checkbox"/> External Floating Roof <input type="checkbox"/> pontoon roof <input type="checkbox"/> double deck roof <input type="checkbox"/> Domed External (or Covered) Floating Roof <input type="checkbox"/> Internal Floating Roof <input type="checkbox"/> vertical column support <input type="checkbox"/> self-supporting <input type="checkbox"/> Variable Vapor Space <input type="checkbox"/> lifter roof <input type="checkbox"/> diaphragm <input type="checkbox"/> Pressurized <input type="checkbox"/> spherical <input type="checkbox"/> cylindrical <input type="checkbox"/> Underground <input type="checkbox"/> Other (describe)	

### III. TANK CONSTRUCTION AND OPERATION INFORMATION (*check which one applies*)

<input type="checkbox"/> Refer to enclosed TANKS Summary Sheets
<input checked="" type="checkbox"/> Refer to the responses to items 19 – 26 in section VII

### IV. SITE INFORMATION (*check which one applies*)

<input type="checkbox"/> Refer to enclosed TANKS Summary Sheets
<input checked="" type="checkbox"/> Refer to the responses to items 27 – 33 in section VII



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25D. If yes, how is the secondary seal mounted? (check one) <input type="checkbox"/> Shoe <input type="checkbox"/> Rim <input type="checkbox"/> Other (describe):			
25E. Is the floating roof equipped with a weather shield? <input type="checkbox"/> Yes <input type="checkbox"/> No			
25F. Describe deck fittings:			
26. Complete the following section for Internal Floating Roof Tanks <input type="checkbox"/> Does not apply			
26A. Deck Type: <input type="checkbox"/> Bolted <input type="checkbox"/> Welded		26B. For bolted decks, provide deck construction:	
26C. Deck seam. Continuous sheet construction: <input type="checkbox"/> 5 ft. wide <input type="checkbox"/> 6 ft. wide <input type="checkbox"/> 7 ft. wide <input type="checkbox"/> 5 x 7.5 ft. wide <input type="checkbox"/> 5 x 12 ft. wide <input type="checkbox"/> other (describe)			
26D. Deck seam length (ft.):	26E. Area of deck (ft <sup>2</sup> ):	26F. For column supported tanks, # of columns:	26G. For column supported tanks, diameter of column:
<b>SITE INFORMATION:</b>			
27. Provide the city and state on which the data in this section are based: Charleston, WV			
28. Daily Avg. Ambient Temperature (°F): 55		29. Annual Avg. Maximum Temperature (°F): 76	
30. Annual Avg. Minimum Temperature (°F): 66		31. Avg. Wind Speed (mph): 6	
32. Annual Avg. Solar Insulation Factor (BTU/R <sup>2</sup> -day): 1030		33. Atmospheric Pressure (psia): 14.7	
<b>LIQUID INFORMATION:</b>			
34. Avg. daily temperature range of bulk liquid (°F): 51	34A. Minimum (°F): 39	34B. Maximum (°F): 64	
35. Avg. operating pressure range of tank (psig): 0	35A. Minimum (psig): 0	35B. Maximum (psig): 0	
36A. Minimum liquid surface temperature (°F): 39		36B. Corresponding vapor pressure (psia): 0.15	
37A. Avg. liquid surface temperature (°F): 52		37B. Corresponding vapor pressure (psia): 0.26	
38A. Maximum liquid surface temperature (°F): 64		38B. Corresponding vapor pressure (psia): 0.36	
39. Provide the following for each liquid or gas to be stored in the tank. Add additional pages if necessary.			
39A. Material name and composition:	Produced Water		
39B. CAS number:	Mix of HC & H2O		
39C. Liquid density (lb/gal):	8.3		
39D. Liquid molecular weight (lb/lb-mole):	18		
39E. Vapor molecular weight (lb/lb-mole):	18		
39F. Maximum true vapor pressure (psia):	0.44		
39G. Maxim Reid vapor pressure (psia):	1.03		
39H. Months Storage per year. From:	Year round		
To:			

## STORAGE VESSEL EMISSION UNIT DATA SHEET (Condensate)

*Provide the following information for each new or modified bulk liquid storage tank.*

### I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name: Goshorn Condensate Tank	2. Tank Name Tanks 11E
3. Emission Unit ID number 11S	4. Emission Point ID number 11E
5. Date Installed or Modified (for existing tanks) 2012	6. Type of change: <input type="checkbox"/> New construction <input type="checkbox"/> New stored material <input checked="" type="checkbox"/> Other
7A. Description of Tank Modification (if applicable) Existing Tank	
7B. Will more than one material be stored in this tank? If so, a separate form must be completed for each material. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
7C. Provide any limitations on source operation affecting emissions. (production variation, etc.)	

### II. TANK INFORMATION (required)

8. Design Capacity (specify barrels or gallons). Use the internal cross-sectional area multiplied by internal height QTY (1) – 100 Barrel Tank	
9A. Tank Internal Diameter (ft.) 12	9B. Tank Internal Height (ft.) 5
10A. Maximum Liquid Height (ft.) 4	10B. Average Liquid Height (ft.) 4
11A. Maximum Vapor Space Height (ft.) 4	11B. Average Vapor Space Height (ft.) 1
12. Nominal Capacity (specify barrels or gallons). This is also known as "working volume. 100 barrel	
13A. Maximum annual throughput (gal/yr) 170,000	13B. Maximum daily throughput (gal/day) 465
14. Number of tank turnovers per year 41	15. Maximum tank fill rate (gal/min) 168
16. Tank fill method <input type="checkbox"/> Submerged <input checked="" type="checkbox"/> Splash <input type="checkbox"/> Bottom Loading	
17. Is the tank system a variable vapor space system? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, (A) What is the volume expansion capacity of the system (gal)? (B) What are the number of transfers into the system per year?	
18. Type of tank (check all that apply): X Fixed Roof <input checked="" type="checkbox"/> vertical <input type="checkbox"/> horizontal <input type="checkbox"/> flat roof <input type="checkbox"/> cone roof <input type="checkbox"/> dome roof <input type="checkbox"/> other (describe)  <input type="checkbox"/> External Floating Roof <input type="checkbox"/> pontoon roof <input type="checkbox"/> double deck roof <input type="checkbox"/> Domed External (or Covered) Floating Roof <input type="checkbox"/> Internal Floating Roof <input type="checkbox"/> vertical column support <input type="checkbox"/> self-supporting <input type="checkbox"/> Variable Vapor Space <input type="checkbox"/> lifter roof <input type="checkbox"/> diaphragm <input type="checkbox"/> Pressurized <input type="checkbox"/> spherical <input type="checkbox"/> cylindrical <input type="checkbox"/> Underground <input type="checkbox"/> Other (describe)	

### III. TANK CONSTRUCTION AND OPERATION INFORMATION (check which one applies)

<input type="checkbox"/> Refer to enclosed TANKS Summary Sheets
<input checked="" type="checkbox"/> Refer to the responses to items 19 – 26 in section VII

### IV. SITE INFORMATION (check which one applies)

<input type="checkbox"/> Refer to enclosed TANKS Summary Sheets
<input checked="" type="checkbox"/> Refer to the responses to items 27 – 33 in section VII



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25D. If yes, how is the secondary seal mounted? (check one) <input type="checkbox"/> Shoe <input type="checkbox"/> Rim <input type="checkbox"/> Other (describe):			
25E. Is the floating roof equipped with a weather shield? <input type="checkbox"/> Yes <input type="checkbox"/> No			
25F. Describe deck fittings:			
26. Complete the following section for <b>Internal Floating Roof Tanks</b> <input type="checkbox"/> Does not apply			
26A. Deck Type: <input type="checkbox"/> Bolted <input type="checkbox"/> Welded		26B. For bolted decks, provide deck construction:	
26C. Deck seam. Continuous sheet construction: <input type="checkbox"/> 5 ft. wide <input type="checkbox"/> 6 ft. wide <input type="checkbox"/> 7 ft. wide <input type="checkbox"/> 5 x 7.5 ft. wide <input type="checkbox"/> 5 x 12 ft. wide <input type="checkbox"/> other (describe)			
26D. Deck seam length (ft.):	26E. Area of deck (ft <sup>2</sup> ):	26F. For column supported tanks, # of columns:	26G. For column supported tanks, diameter of column:
<b>SITE INFORMATION:</b>			
27. Provide the city and state on which the data in this section are based: Charleston, WV			
28. Daily Avg. Ambient Temperature (°F): 55		29. Annual Avg. Maximum Temperature (°F): 76	
30. Annual Avg. Minimum Temperature (°F): 66		31. Avg. Wind Speed (mph): 6	
32. Annual Avg. Solar Insulation Factor (BTU/ft <sup>2</sup> -day): 1030		33. Atmospheric Pressure (psia): 14.7	
<b>LIQUID INFORMATION:</b>			
34. Avg. daily temperature range of bulk liquid (°F): 51	34A. Minimum (°F): 39	34B. Maximum (°F): 64	
35. Avg. operating pressure range of tank (psig): 0	35A. Minimum (psig): 0	35B. Maximum (psig): 0	
36A. Minimum liquid surface temperature (°F): 39		36B. Corresponding vapor pressure (psia): 1.13	
37A. Avg. liquid surface temperature (°F): 52		37B. Corresponding vapor pressure (psia): 1.49	
38A. Maximum liquid surface temperature (°F): 64		38B. Corresponding vapor pressure (psia): 1.93	
39. Provide the following for each liquid or gas to be stored in the tank. Add additional pages if necessary.			
39A. Material name and composition:	Condensate		
39B. CAS number:	Mix of HC		
39C. Liquid density (lb/gal):	5.9		
39D. Liquid molecular weight (lb/lb-mole):	112		
39E. Vapor molecular weight (lb/lb-mole):	40.1		
39F. Maximum true vapor pressure (psia):	2.3		
39G. Maxim Reid vapor pressure (psia):	3.54		
39H. Months Storage per year. From:	January - December		
To:			

## NATURAL GAS FIRED FUEL BURNING UNITS EMISSION DATA SHEET

*Complete the information on this data for each Gas Producing Unit(s), Heater Treater(s), and in-line heater(s) at the production pad. Reboiler information should be entered on the Glycol Dehydration Emission Unit Data Sheet.*

Emission Unit ID # <sup>1</sup>	Emission Point ID# <sup>2</sup>	Emission Unit Description (Manufacturer / Model #)	Year Installed/Modified	Type <sup>3</sup> and Date of Change	Control Device <sup>4</sup>	Design Heat Input (mmBtu/hr) <sup>5</sup>		Fuel Heating Value (Btu/scf) <sup>6</sup>
1S - 4S	1E-4E	Gas Processing Unit GPU	2012	NA	NA	750/ea		1030

<sup>1</sup> Enter the appropriate Emission Unit (or Sources) identification numbers for each fuel burning unit located at the production pad. Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be designated HT-1, HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For sources, use 1S, 2S, 3S...or other appropriate designation. Enter glycol dehydration unit Reboiler Vent data on the *Glycol Dehydration Unit Data Sheet*.

<sup>2</sup> Enter the appropriate Emission Point identification numbers for each fuel burning unit located at the production pad. Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be designated HT-1, HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For emission points, use 1E, 2E, 3E...or other appropriate designation.

<sup>3</sup> New, modification, removal

<sup>4</sup> Complete appropriate air pollution control device sheet for any control device.

<sup>5</sup> Enter design heat input capacity in mmBtu/hr.

<sup>6</sup> Enter the fuel heating value in Btu/standard cubic foot.

## TANK TRUCK LOADING EMISSION UNIT DATA SHEET

*Furnish the following information for each new or modified bulk liquid transfer area or loading rack at the natural gas production pad.  
 This form is to be used for bulk liquid transfer operations to tank trucks.*

1. Emission Unit ID: 12S	2. Emission Point ID: 12E	3. Year Installed/ Modified: 2012		
4. Emission Unit Description: Truck Load Loss				
5. Loading Area Data: Goshorn Well Pad				
5A. Number of pumps: One	5B. Number of liquids loaded: One	5C. Maximum number of tank trucks loading at one time: 1		
6. Describe cleaning location, compounds and procedure for tank trucks: Tank truck arrives 3 times a week to haul off stored condensate / mix				
7. Are tank trucks pressure tested for leaks at this or any other location? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If YES, describe:				
8. Projected Maximum Operating Schedule (for rack or transfer point as a whole):				
Maximum	Jan. - Mar.	Apr. - June	July - Sept.	Oct. - Dec.
hours/day	1-2 hrs/day	1-2 hrs/day	1-2 hrs/day	1-2 hrs/day
days/week	3 days/week	3 days/week	3 days/week	3 days/week

9. Bulk Liquid Data <i>(add pages as necessary)</i> :			
Liquid Name	Condensate HC mix		
Max. daily throughput (1000 gal/day)	465		
Max. annual throughput (1000 gal/yr)	170,000		
Loading Method <sup>1</sup>	SP		
Max. Fill Rate (gal/min)	168		
Average Fill Time (min/loading)	60		
Max. Bulk Liquid Temperature (°F)	69		
True Vapor Pressure <sup>2</sup>	4.73		
Cargo Vessel Condition <sup>3</sup>	C		
Control Equipment or Method <sup>4</sup>	VB		
Minimum collection efficiency (%)	98.7		
Minimum control efficiency (%)	98.7		

\* Continued on next page

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Maximum Emission Rate	Loading (lb/hr)	1.196		
	Annual (ton/yr)	5.24		
Estimation Method <sup>5</sup>		EPA See Attachment I		
Notes:				
<sup>1</sup> BF = Bottom Fill    SP = Splash Fill    SUB = Submerged Fill				
<sup>2</sup> At maximum bulk liquid temperature				
<sup>3</sup> B = Ballasted Vessel, C = Cleaned, U = Uncleaned (dedicated service), O = other (describe)				
<sup>4</sup> List as many as apply (complete and submit appropriate <i>Air Pollution Control Device Sheets as Attachment "H"</i> ): CA = Carbon Adsorption VB = Dedicated Vapor Balance (closed system) ECD = Enclosed Combustion Device F = Flare TO = Thermal Oxidation or Incineration				
<sup>5</sup> EPA = EPA Emission Factor as stated in AP-42 MB = Material Balance TM = Test Measurement based upon test data submittal O = other (describe)				

<b>10. Proposed Monitoring, Recordkeeping, Reporting, and Testing</b> Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.	
<b>MONITORING</b> <i>Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment operation/air pollution control device.</i>	<b>RECORDKEEPING</b> <i>Please describe the proposed recordkeeping that will accompany the monitoring.</i>
<b>REPORTING</b> <i>Please describe the proposed frequency of reporting of the recordkeeping.</i>	<b>TESTING</b> <i>Please describe any proposed emissions testing for this process equipment/air pollution control device.</i>
<b>11. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty:</b>	

## ATTACHMENT I

## EMISSIN CALCULATIONS

1. Four (4) 750,000 BTU/hr. GPU (Gas Processing Units / Separators) AP-42 Emissions
2. Two (2) 400 Barrel & Four (4) 210 Barrel Storage Tanks – 4.09d, Produced Water Emission Results, Truck Load Loss

**Produced Water Emission Results**

Cubic Feet of Gas Liberated from Produced Water

Cubic Feet/Year = (GWR = Cubic FT<sup>3</sup>/Barrel) (Barrel/year)

From FESCO Report Stock Tank GWR = 3.49 FT<sup>3</sup>/Barrel – SIMILAR WELL

Barrels/day = From Trans Energy Report of 123,418 Barrels/Year

(3.49) (123,418) = 430,729 Cubic Feet of Gas Liberated per year (FT<sup>3</sup>/year)

Convert Cubic Feet of gas liberated to Tons of emissions per year using following methodology

FT<sup>3</sup>/year = 430,729

MW = 18.18 from gas analysis

TPY = (MW) (FT<sup>3</sup>/Year) (28,317 cm<sup>3</sup>/FT<sup>3</sup>) (gr-mole/23,890 cm<sup>3</sup>) (lb-mole/454 gr-mole) (ton-mole/2000 lb-mole)

Tons/year = 10.22 = 10.22 Tons/year

Tons CO<sub>2</sub>/year = (wt%CO<sub>2</sub>/100) (Tons/year) = wt%CO<sub>2</sub> = 4.1 = (4.1/100) (10.22) = 0.42 TPY

Tons CH<sub>4</sub>/year = (wt%CH<sub>4</sub>/100) (Tons/year) = wt%CH<sub>4</sub> = 81 = (81/100) (10.22) = 8.27 TPY

From Standard Gas Analysis Attached VOC's (NMNEHC) 100 – 81 WT% Methane – 12 WT% Ethane – 4.1 WT% CO<sub>2</sub> = 2.9 WT% NMNEHC (VOC's) = 2.9 WT%

Tons VOC (NMNEHC)/Year = (wt%CO<sub>2</sub>/100) = wt%VOC = (2.9/100) (10.22) = 0.296 Tons/Year

**VOC's = 0.296 TPY**

HAP's (BTEX) Benzene, Toluene, Ethyl benzene, Xylene, Hexane = 0.00 WT% = 0.00 %

HAP's (0.00) (7.1) = **0.00 TPY HAPS**

Total Well Site VOC Emissions Water Flash 0.296 TPY + W&B 1.88 TPY + GPU's 0.07 TPY + LL 5.24 TPY

**Total VOC = 7.486 Tons/Year (1.71 lbs/hr)**

**GHG (CO<sub>2</sub>(e)) = 1546 separators + 0.42 water flash = 1547 TPY**

**GHG(CH<sub>4</sub>) = 0.03 separators + 8.27 water flash = 8.3 TPY**

## ATTACHMENT I

## Truck Loading Emissions

$$LL = 12.46 \times [(S \cdot P \cdot M) \div T] \times (1 - \text{EFF}/1)$$

$$LL = 12.46 \times [(1.00 \cdot 4.73 \cdot 18.18) \div (70^\circ\text{F} + 460)] \times (1 - (0))$$

$$LL = 12.46 \times [86 \div 530] \times 1$$

$$LL = 12.46 \times 0.593 \times 1$$

$$LL = 2.02$$

$$LL = 2.02 \text{ pounds per 1,000 gallons}$$

Where:

LL = loading loss, pounds per 1,000 gallons

S = saturation factor (Table 5.2-1)

P = true vapor pressure of liquid loaded (psia)

M = Molecular weight of vapors

T = temperature of bulk liquid loaded, °R (°F + 460)

EFF = VRU reduction efficiency

Bbl/year was taken from data supplied by Trans Energy for the 2014 calendar year = 123,418 barrels (H2O/NGL/Oil)

Total: (Goshorn) (123,418 bbl/year = 5,183,556 gallons/year) – Water & Condensate (NGL & Oil) for all four wells

$$5,186,556 \div 1,000 = 5183$$

$$5,183,556 \text{ gal} \times 2.02 \text{ lbs}/1000 \text{ gal} = 10,470 \text{ lbs of VOC annual for } \underline{\text{Goshorn Tanks 1, 2, 3, 4, 5 \& 6}} = \underline{5.24 \text{ TPY}}$$

Assume loading into trucks that are leak tested based on NSPS Subpart XX with a capture efficiency of 98.7%.

$$(5.24 \text{ Tons/year}) \times (1 - 0.987) = 0.07 \text{ TPY}$$

Vapor balance service is a line hose connected to top of tank truck sending the vapors back to the tank being unloaded. Control efficiency 95% x 70% by AP-42

As per WVDAQ assume for PTE that capture efficiency of 98.7% does not exist.

**Tanks Truck Load Loss = 1.196 lbs/hr or 5.24 Tons/Year VOC's**

## ATTACHMENT I

Owner of Source: Trans Energy, Inc. Site: Goshorn Well site

County: Marshall County, WV

Latitude/Longitude: 39.81578 N / 80.61547 W

**Mass Emission Calculations for a Natural Gas Engine Stationary Source**

Make GPU QTY 4 Model 750MBTU/hr

Heat Input (MMBTU/hr) 0.750 x 4 = 3.0

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EPA AP-42 Natural Gas Combustion Emission Factors from Table 1.4-2

Pollutant	(lb/10 <sup>6</sup> SCF)	lb/hr	Ton/Year lb/hr*8760/2000	Method AP-42
NOx	100	0.29	1.27	AP-42
CO	84	0.25	1.08	AP-42
VOC	5.5	0.016	0.07	AP-42
HCHO	0.075	NA	NA	AP-42
PM(Total)	7.6	0.022	0.10	AP-42
SOx	0.6	0.0018	0.008	AP-42
GHG CO2(e) CH4	120,000 2.3	353 0.007	1546 0.03	AP-42

Emissions Above are **Totals** of all FOUR (4) GPUs

ATTACHMENT I

**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Tank Identification and Physical Characteristics**

**Identification**  
 User Identification: Goshorn  
 City: Charleston  
 State: West Virginia  
 Company: Trans Energy  
 Type of Tank: Vertical Fixed Roof Tank  
 Description: Well Site 1H-4H

**Tank Dimensions**  
 Shell Height (ft): 12.00  
 Diameter (ft): 10.00  
 Liquid Height (ft): 11.00  
 Avg. Liquid Height (ft): 6.00  
 Volume (gallons): 6,462.73  
 Turnovers: 1.70  
 Net Throughput(gal/yr): 10,986.63  
 Is Tank Heated (y/n): N

**Paint Characteristics**  
 Shell Color/Shade: Gray/Medium  
 Shell Condition: Good  
 Roof Color/Shade: Gray/Medium  
 Roof Condition: Good

**Roof Characteristics**  
 Type: Dome  
 Height (ft): 0.00  
 Radius (ft) (Dome Roof): 0.00

**Breather Vent Settings**  
 Vacuum Settings (psig): -0.03  
 Pressure Settings (psig): 0.03

Meteorological Data used in Emissions Calculations: Charleston, West Virginia (Avg Atmospheric Pressure = 14.25 psia)

ATTACHMENT I

TANKS 4.0.9d  
Emissions Report - Detail Format  
Detail Calculations (AP-42)

Goshorn - Vertical Fixed Roof Tank  
Charleston, West Virginia

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	50.1957	21.0236	0.7546	0.7479	55.5525	194.1321	0.6526	55.0140	134.7172	0.6550	22.4251	47.9864
Vapor Space Volume (cu ft):	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097
Vapor Density (lb/cu ft):	0.0514	0.0226	0.0007	0.0006	0.0307	0.0781	0.0005	0.0329	0.0724	0.0007	0.0244	0.0529
Vapor Space Expansion Factor:	0.1506	0.1189	0.0686	0.0607	0.2486	0.5368	0.0872	0.2400	0.3788	0.0641	0.1144	0.1425
Vented Vapor Saturation Factor:	0.3987	0.5314	0.8261	0.9349	0.4470	0.2958	0.9481	0.4285	0.3117	0.9306	0.5111	0.3908
Tank Vapor Space Volume:	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097	525.1097
Vapor Space Volume (cu ft):	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
Tank Diameter (ft):	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859
Vapor Space Outage (ft):	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000
Tank Shell Height (ft):	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000
Average Liquid Height (ft):	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859
Roof Outage (ft):	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859
Roof Outage (Dome Roof)	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859	0.6859
Roof Outage (ft):	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
Dome Radius (ft):	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Shell Radius (ft):	0.0514	0.0226	0.0007	0.0006	0.0307	0.0781	0.0005	0.0329	0.0724	0.0007	0.0244	0.0529
Vapor Density	66.0000	50.0000	18.0200	18.0200	50.0000	66.0000	18.0200	50.0000	66.0000	18.0200	50.0000	66.0000
Vapor Molecular Weight (lb/lb-mole):	4.2555	2.4885	0.2253	0.1967	3.4906	6.7821	0.1546	3.7636	6.2306	0.2100	2.6990	4.3996
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	509.6722	512.3732	518.7236	524.4342	529.6887	533.8872	535.0758	533.7023	529.3110	522.5328	516.4248	511.3288
Daily Avg. Liquid Surface Temp. (deg. R):	32.1000	35.5000	45.8500	54.8000	63.5000	71.4500	75.0500	73.9000	67.8500	56.2000	46.8000	37.0000
Daily Average Ambient Temp. (deg. F):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Ideal Gas Constant R	517.7333	517.7333	517.7333	517.7333	517.7333	517.7333	517.7333	517.7333	517.7333	517.7333	517.7333	517.7333
(psia cu ft / (lb-mol-deg R)):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Liquid Bulk Temperature (deg. R):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Tank Paint Solar Absorptance (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Tank Paint Solar Absorptance (Roof):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Daily Total Solar Insulation Factor (Btu/sq ft day):	625.9737	850.2836	1,184.6862	1,514.6470	1,780.2020	1,910.5999	1,836.9833	1,675.5029	1,366.9719	1,046.0392	678.9578	533.0136
Vapor Space Expansion Factor:	0.1506	0.1189	0.0686	0.0607	0.2486	0.5368	0.0872	0.2400	0.3788	0.0641	0.1144	0.1425
Daily Vapor Temperature Range (deg. R):	25.0225	30.3014	38.1504	46.1189	51.1750	53.1538	50.3124	47.0216	42.1403	37.1966	28.0474	23.1086
Daily Vapor Pressure Range (psia):	1.0748	0.7831	-0.0097	-0.0425	1.6960	3.3287	-0.0363	1.5837	2.4813	-0.0400	0.7539	1.0193
Breather Vent Press. Setting Range (psia):	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	4.2555	2.4885	0.2253	0.1967	3.4906	6.7821	0.1546	3.7636	6.2306	0.2100	2.6990	4.3996
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	3.7454	2.1304	0.1795	0.1952	2.7243	5.2798	0.2102	3.0088	5.0984	0.1978	2.3432	3.9136
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	4.8202	2.8936	0.1698	0.1537	4.4203	8.6065	0.1740	4.6625	7.5577	0.1578	3.0971	4.6930
Daily Avg. Liquid Surface Temp. (deg. R):	509.6722	512.3732	518.7236	524.4342	529.6887	533.8872	535.0758	533.7023	529.3110	522.5328	516.4248	511.3288
Daily Min. Liquid Surface Temp. (deg. R):	503.4156	504.7978	508.1785	512.9044	516.6950	520.9988	522.4977	521.9469	518.7759	513.2336	509.4130	505.5517
Daily Max. Liquid Surface Temp. (deg. R):	515.5278	519.9465	526.2887	535.9639	542.4925	547.1757	547.6539	545.4577	539.8460	531.8318	523.4367	517.1060
Daily Ambient Temp. Range (deg. R):	18.2000	19.6000	21.7000	24.0000	24.0000	23.3000	21.3000	21.0000	22.3000	24.0000	21.0000	18.0000
Vented Vapor Saturation Factor:	0.3987	0.5314	0.8261	0.9349	0.4470	0.2958	0.9481	0.4285	0.3117	0.9306	0.5111	0.3908
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	4.2555	2.4885	0.2253	0.1967	3.4906	6.7821	0.1546	3.7636	6.2306	0.2100	2.6990	4.3996
Vapor Space Outage (ft):	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859	6.6859
Working Losses (lb):	6.1225	2.0342	0.0685	0.0772	2.6534	9.7576	0.0607	3.0766	8.9641	0.0625	2.2063	6.3298
Vapor Molecular Weight (lb/lb-mole):	66.0000	50.0000	18.0200	18.0200	50.0000	66.0000	18.0200	50.0000	66.0000	18.0200	50.0000	66.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	4.2555	2.4885	0.2253	0.1967	3.4906	6.7821	0.1546	3.7636	6.2306	0.2100	2.6990	4.3996

ATTACHMENT I

**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Liquid Contents of Storage Tank**

**Goshorn - Vertical Fixed Roof Tank**  
**Charleston, West Virginia**

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 10)	Jan	50.00	43.75	56.28	58.06	4.2555	3.7454	4.8202	66.0000		92.00	Option 4: RVP=10, ASTM Slope=3	
Crude oil (RVP 5)	Feb	52.70	45.13	60.28	58.06	2.4885	2.1304	2.8936	50.0000		207.00	Option 4: RVP=5	
Produced Water	Mar	59.05	49.51	68.60	58.06	0.2253	0.1795	0.1698	18.0200		18.02	Option 1: VP50 = .18 VP60 = .23	
Produced Water	Apr	64.76	53.23	76.29	58.06	0.1967	0.1962	0.1537	18.0200		18.02	Option 1: VP60 = .23 VP70 = .16	
Crude oil (RVP 5)	May	70.02	57.22	82.81	58.06	3.4906	2.7243	4.4203	50.0000		207.00	Option 4: RVP=5	
Gasoline (RVP 10)	Jun	74.22	60.93	87.51	58.06	6.7821	5.2798	8.6065	66.0000		92.00	Option 4: RVP=10, ASTM Slope=3	
Produced Water	Jul	75.41	62.83	87.98	58.06	0.1546	0.2102	0.1740	18.0200		18.02	Option 1: VP70 = .16 VP80 = .15	
Crude oil (RVP 5)	Aug	74.03	62.28	85.79	58.06	3.7636	3.0088	4.6625	50.0000		207.00	Option 4: RVP=5	
Gasoline (RVP 10)	Sep	69.64	59.11	80.18	58.06	6.2308	5.0964	7.5577	66.0000		92.00	Option 4: RVP=10, ASTM Slope=3	
Produced Water	Oct	62.86	53.96	72.16	58.06	0.2100	0.1978	0.1578	18.0200		18.02	Option 1: VP60 = .23 VP70 = .16	
Crude oil (RVP 5)	Nov	56.75	49.74	63.77	58.06	2.6890	2.3432	3.0971	50.0000		207.00	Option 4: RVP=5	
Gasoline (RVP 10)	Dec	51.68	45.88	57.44	58.06	4.3986	3.9196	4.9330	66.0000		92.00	Option 4: RVP=10, ASTM Slope=3	



ATTACHMENT I

WDB

TANKS 4.0.9d  
Emissions Report - Detail Format  
Individual Tank Emission Totals

Emissions Report for: Annual  
Goshorn - Vertical Fixed Roof Tank  
Charleston, West Virginia

Components	Losses (lbs)		Total Emissions
	Working Loss	Breathing Loss	
Crude oil (RVP 5)	10.17	154.02	164.19
Produced Water	0.31	2.81	3.12
Gasoline (RVP 10)	31.17	427.03	458.21

TOTAL WORKING & BREATHING

$$625.52 \frac{\text{lbs}}{\text{YR}} \times \frac{1 \text{ TN}}{2000 \text{ lbs}} = 0.31 \text{ TONS} \times 6 \text{ TANKS} = \underline{\underline{1.88 \text{ TPY}}}$$

## ATTACHMENT J

### AIR QUALITY PERMIT NOTICE Notice of Application

Notice is given that Trans Energy, Inc. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for General Registration G70-A Construction "After-the Fact" for Goshorn Well Pad 1H – 4H, a Natural Gas and Oil Production Facility located near State Route 62, Goshorn Ridge Road near the town of Cameron, in Marshall County, West Virginia.

Latitude 39.81578  
Longitude 80.61547

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be: VOC's = 7.486 TPY, NO<sub>x</sub> = 1.27 TPY, CO = 1.08 TPY, SOX = 0.008 TPY & PM10 = 0.01 TPY GHG(CO<sub>2</sub>(e)) = 1547 TPY, GHG(CH<sub>4</sub>) = 8.3 TPY

Completion and Operation of Goshorn 1H – 4H Wells began on or about the 10th day of April, 2012. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57<sup>th</sup> Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the 30th day of June, 2015.

By: Trans Energy, Inc.  
Leslie A. Gearhart  
Vice President of Operations  
PO Box 393  
St. Marys, WV 26170



(304) 845-2660  
 P.O. BOX 369  
 MOUNDSVILLE  
 WEST VIRGINIA  
 26041

**AFFIDAVIT OF PUBLICATION**

STATE OF WEST VIRGINIA,  
 COUNTY OF MARSHALL, to wit

I, Melanie S. Murdock being first duly sworn upon my oath, do depose and say:

- that I am Legal Advertising Manager of the MOUNDSVILLE DAILY ECHO, a Republican newspaper;
- that I have been duly authorized to execute this affidavit;
- that such newspaper has been published for over 119 years, is regularly published afternoons daily except Saturdays and Sundays, for at least fifty weeks during the calendar year, in the municipality of Moundsville, Marshall County, West Virginia.
- that such newspaper is a newspaper of "general circulation" as defined in Art. 3, Chap. 59 of the Code of West Virginia 1931 as amended, within Moundsville and Marshall County;
- that such newspaper averages in length four or more pages, exclusive of any cover, per issue;
- that such newspaper is circulated to the general public at a definite price or consideration;
- that such newspaper is a newspaper to which the general public resorts for passing events of a political, religious, commercial and social nature and for current happenings, announcements, miscellaneous reading matters, advertisements and other notices;
- and that the annexed notice described as follows:

**Legal Advertisement**

PARTY(ies)

Air Quality Permit Notice / Goshorn 1H-4H

NATURE (and agency if heard before one)

CERTIF-BILL TO

Debra A. Martin, Land Admin.  
 Trans Energy Inc.  
 210 2nd. Street  
 P.O. Box 393  
 St. Marys, WV 26170

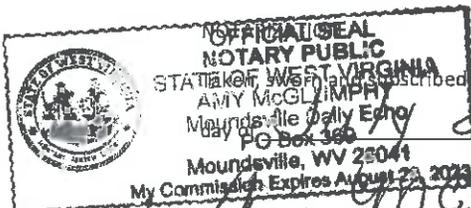
WAS PUBLISHED IN-SAID NEWSPAPER AS FOLLOWS

Times	Dates
1	July 20, 2015

BY WORDS 277	PUBLICATION CHARGES \$31.86
-----------------	--------------------------------

(signed)

*Melanie S. Murdock*



STATE OF WEST VIRGINIA

AMY McGLUMPHY  
 Moundsville Daily Echo  
 P.O. Box 369  
 Moundsville, WV 26041

*21st*

*2015*

Notary Public

*Amy McGlumphy*

**Moundsville Daily Echo--PAGE THREE**

**LEGAL ADVERTISEMENT  
 AIR QUALITY PERMIT NOTICE  
 Notice of Application**

Notice is given that Trans Energy, Inc. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for General Registration G70-A Construction "After-the-Fact" for Goshorn Well Pad 1H - 4H, a Natural Gas and Oil Production Facility located near State Route 62, Goshorn Ridge Road near the town of Cameron, in Marshall County, West Virginia.

Latitude 39.81578  
 Longitude 80.61547

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be: VOC's = 7.486 TPY, NOx = 1.27 TPY, CO = 1.08 TPY, SOX = 0.008 TPY & PM10 = 0.01 TPY, GHG(CO2(e)) = 1547 TPY, GHG(CH4) = 8.3 TPY

Completion and Operation of Goshorn 1H - 4H Wells began on or about the 10th day of April, 2012. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 906-0499, extension 1227, during normal business hours.

Dated this the 30th day of June, 2015.

By: Trans Energy, Inc.  
 Leslie A. Gearhart  
 Vice President of Operations  
 PO Box 393  
 St. Marys, WV 26170  
 PUBLISH: July 20, 2015.

**ATTACHMENT L**

**AIR QUALITY PERMIT FEE**

**APPLICATION FEE \$ 500.00**  
**NSPS FEE \$1,000.00**

**TOTAL \$1,500.00**

**PLEASE ATTACH CHECK FOR \$1,500 PAYABLE TO:**

**WVDEP – DIVISION OF AIR QUALITY**

BANK OF TEXAS N.A.  
DALLAS, TEXAS

86-105/1031

**REPUBLIC ENERGY OPERATING, LLC**

4925 GREENVILLE AVE. SUITE 1050  
DALLAS, TEXAS 75206  
Main Office (214) 369-4800  
Accounts Payable Questions: 214-891-2515

THIS CHECK VOID UNLESS PRESENTED FOR  
PAYMENT WITHIN 90 DAYS OF ISSUE DATE

DATE	CHECK NO.	AMOUNT
9/09/15	05013701	***1,500.00

PAY *ONE THOUSAND FIVE HUNDRED AND 00 /100 DOLLARS*

TO THE ORDER OF WV DEP DIV OF AIR QUALITY 1529  
601 57TH STREET, SE  
CHARLESTON WV 25304

⑈05013701⑈ ⑆103101055⑆ ⑈3090604307⑈

**REPUBLIC ENERGY OPERATING, LLC**

Ck. Date: 9/09/15

Check No. 05013701

DATE	REFERENCE OR DESCRIPTION	ACCT. NO.	INVOICE AMOUNT	DISCOUNT	NET AMOUNT
09/05/15	090915APPLICATIONFEE		1500.00		1500.00
				<b>TOTAL</b>	1500.00

**COPY**



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west virginia department of environmental protection

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Division of Air Quality  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

January 28, 2014

**CERTIFIED MAIL**  
91 7199 9991 7033 2846 9985

Leslie A. Gearhart  
Vice President of Operations  
Trans Energy, Inc.  
P.O. Box 39 3  
St. Marys, WV 26170

Re: Permit Applicability Determination  
Goshorn 1H-4H Well Pad  
Marshall County, WV  
Determination No. PD15-025  
Plant ID No. 051-00214

Dear Mrs. Gearhart:

It has been determined that a permit will be required under 45CSR13 for your "after-the-fact" operation of a well site water separation system at the above referenced facility. This determination is based on information included with your permit determination form (PDF) received on March 9, 2015, which indicates that the increase in emissions will exceed two (2) lbs/hr or five (5) tons/year of total Hazardous Air Pollutants (HAPs); six (6) lbs/hour and ten (10) TPY of any regulated pollutant; or, trigger a substantive requirement of a state air quality regulation.

The appropriate application forms which need to be completed can be obtained from the WVDEP website at <http://www.dep.wv.gov>. Submit the completed forms, \$1,000.00 permit application fee, and any other applicable fees to the above address. If you should have questions concerning which forms are needed, or have trouble downloading, please call the Permitting Secretary at (304) 926-0475. Please address this matter as soon as possible to ensure expediency of the permit review process.

Should you have any questions, please contact the undersigned engineer at (304) 926-0499 ext. 1211.

Sincerely,

William T. Rothwell II, P.E.  
Engineer

## GENERAL PERMIT APPLICATION FEE AND TIME TABLE

### G10-C - Class II Coal Preparation and Handling

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Relocation	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 1,300.00	45

### G20-B - Class II Hot Mix Asphalt

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Relocation	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 1,300.00	45

### G30-A - Class II Natural Gas Compressor

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Relocation	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 1,300.00	45

### G-33A - Class I Natral Gas Compressor ≥ 26HP and ≤ 500 HP

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 250.00	NA	\$ 250.00	45
Modification	\$ 250.00	NA	\$ 250.00	45
Relocation	\$ 250.00	NA	\$ 250.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	NA	\$ 300.00	45

### G-35A - Class II Natural Gas Compressor Station W/ Glycol Dehydration Unit, Flares, and Other Specified Control Devices

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Relocation	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 1,300.00	45

### G40-B - Class II Nonmetallic Minerals Processing

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Relocation	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 1,300.00	45

### G50-B - Class II Concrete Batch

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Relocation	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 1,300.00	45

### G60-A - Class II Emergency Generator

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Relocation	\$ 500.00	\$ 1,000.00	\$ 1,500.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 1,300.00	45

### G65-A - Class I Emergency Generator

	Application Fee	NSPS Fee	Total Fee	Total Days*
Construction	\$ 250.00	NA	\$ 250.00	45
Modification	\$ 250.00	NA	\$ 250.00	45
Relocation	\$ 250.00	NA	\$ 250.00	45
Class I Admin. Update	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	NA	\$ 300.00	45

### G70-A - Class II Natural Gas Production Pad

	Application Fee	NSPS Fee	NESHAP Fee	Total Fee	Total Days*
Construction	\$ 500.00	\$ 1,000.00	\$ 2,500.00	\$ 4,000.00	45
Modification	\$ 500.00	\$ 1,000.00	\$ 2,500.00	\$ 4,000.00	45
Class I Admin. Update	NA	NA	NA	NA	45
Class II Admin. Update	\$ 300.00	\$ 1,000.00	\$ 2,500.00	\$ 3,800.00	45

\* Maximum days after receipt of complete application.