

AIR QUALITY PERMIT NOTICE

Notice of Intent to Approve

On April 27, 2015, SWN Production Company, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a permit to modify the Charles Frye natural gas production facility located off of McCutcheon Road (CR 41/1), near Wheeling, Ohio County, WV at latitude 40.05305 and longitude -80.57735. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed facility. The DAQ is providing notice to the public of its preliminary determination to issue the permit as R13-2922F.

The following change in the potential emissions will be authorized by this permit action: Particulate Matter less than 2.5 microns, 0.57 tons per year (TPY); Particulate Matter less than 10 microns, 0.57 TPY; Particulate Matter, 0.57 TPY; Sulfur Dioxide, 0.06 TPY; Oxides of Nitrogen, 1.01 TPY; Carbon Monoxide, -7.95 TPY; Volatile Organic Compounds, 1.97 TPY; Hazardous Air Pollutants -1.51 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on XXXXX. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed modification will meet all State and Federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Joe Kessler, PE
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
Telephone: 304/926-0499, ext. 1219
FAX: 304/926-0478

Entire Document
NON-CONFIDENTIAL

Additional information, including copies of the draft permit, application and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation can be downloaded at:

www.dep.wv.gov/daq/Pages/NSRPermitsforReview.aspx

Kessler, Joseph R

From: Adkins, Sandra K
Sent: Thursday, July 23, 2015 4:11 PM
To: legalads@theintelligencer.net
Cc: Kessler, Joseph R
Subject: Publication of Class I Legal Ad for the WV Division of Air Quality

Please publish the information below as a Class I legal advertisement (one time only) in the Tuesday, July 28, 2015, issue of *The Intelligencer*. Please let me know that this has been received and will be published as requested. Thank you.

Send the invoice for payment and affidavit of publication to:

Sandra Adkins

**WV Department of Environmental Protection
DIVISION OF AIR QUALITY**

601- 57th Street

Charleston, WV 25304

Thank you for your assistance. Should you have any questions, please contact me at 304-926-0499 x1250.

AIR QUALITY PERMIT NOTICE

Notice of Intent to Approve

On April 27, 2015, SWN Production Company, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a permit to modify the Charles Frye natural gas production facility located off of McCutcheon Road (CR 41/1), near Wheeling, Ohio County, WV at latitude 40.05305 and longitude -80.57735. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed facility. The DAQ is providing notice to the public of its preliminary determination to issue the permit as R13-2922F.

The following change in the potential emissions will be authorized by this permit action: Particulate Matter less than 2.5 microns, 0.57 tons per year (TPY); Particulate Matter less than 10 microns, 0.57 TPY; Particulate Matter, 0.57 TPY; Sulfur Dioxide, 0.06 TPY; Oxides of Nitrogen, 1.01 TPY; Carbon Monoxide, -7.95 TPY; Volatile Organic Compounds, 1.97 TPY; Hazardous Air Pollutants -1.51 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on Thursday, August 27, 2015. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed modification will meet all State and Federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a

scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Joe Kessler, PE
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
Telephone: 304/926-0499, ext. 1219
FAX: 304/926-0478

Additional information, including copies of the draft permit, application and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation can be downloaded at:

www.dep.wv.gov/daq/Pages/NSRPermitsforReview.aspx

Kessler, Joseph R

From: Adkins, Sandra K
Sent: Friday, July 24, 2015 8:48 AM
To: Wheeler, Cathy L
Cc: Kessler, Joseph R
Subject: DAQ Public Notice

Please see below the Public Notice for Draft Permit R13-2922F for SWN Production Company, LLC's Charles Frye Natural Gas Production Facility located in Ohio County.

The notice will be published in *The Intelligencer* on Tuesday, July 28, 2015, and the thirty day public comment period will end on Thursday, August 27, 2015.

AIR QUALITY PERMIT NOTICE

Notice of Intent to Approve

On April 27, 2015, SWN Production Company, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a permit to modify the Charles Frye natural gas production facility located off of McCutcheon Road (CR 41/1), near Wheeling, Ohio County, WV at latitude 40.05305 and longitude -80.57735. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed facility. The DAQ is providing notice to the public of its preliminary determination to issue the permit as R13-2922F.

The following change in the potential emissions will be authorized by this permit action: Particulate Matter less than 2.5 microns, 0.57 tons per year (TPY); Particulate Matter less than 10 microns, 0.57 TPY; Particulate Matter, 0.57 TPY; Sulfur Dioxide, 0.06 TPY; Oxides of Nitrogen, 1.01 TPY; Carbon Monoxide, -7.95 TPY; Volatile Organic Compounds, 1.97 TPY; Hazardous Air Pollutants -1.51 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on Thursday, August 27, 2015. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed modification will meet all State and Federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Joe Kessler, PE
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
Telephone: 304/926-0499, ext. 1219
FAX: 304/926-0478

Additional information, including copies of the draft permit, application and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation can be downloaded at:

www.dep.wv.gov/daq/Pages/NSRPermitsforReview.aspx

Kessler, Joseph R

From: Adkins, Sandra K
Sent: Friday, July 24, 2015 8:49 AM
To: wentworth.paul@epa.gov; bradley.megan@epa.gov; kristi_evans@swn.com
Cc: Durham, William F; McKeone, Beverly D; McCumbers, Carrie; Hammonds, Stephanie E; Taylor, Danielle R; Kessler, Joseph R; Seevers, Sharon M
Subject: WV Draft Permit R13-2922F for SWN Production Company, LLC; Charles Frye Facility
Attachments: 2922F.pdf; Eval2922F.pdf; Attachment A.pdf; notice.pdf

Please find attached the Draft Permit R13-2922F, Engineering Evaluation, Attachment A, and Public Notice for SWN Production Company, LLC's Charles Frye Natural Gas Production Facility, located in Ohio County.

The notice will be published in *The Intelligencer* on Tuesday, July 28, 2015, and the thirty day public comment period will end on Thursday, August 27, 2015.

Should you have any questions or comments, please contact the permit writer, Joe Kessler, at 304 926-0499 x1219.

Kessler, Joseph R

From: Wale Akintayo <wakintayo@trinityconsultants.com>
Sent: Wednesday, July 15, 2015 1:31 PM
To: Kessler, Joseph R
Cc: Kristi Evans (Kristi_Evans@SWN.COM)
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
I will send you the updated affected files for your record. Thanks

From: Kessler, Joseph R [mailto:Joseph.R.Kessler@wv.gov]
Sent: Wednesday, July 15, 2015 1:17 PM
To: Wale Akintayo
Cc: Kristi Evans (Kristi_Evans@SWN.COM)
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

OK, thanks. Even though it's a small change, we need to update the relevant application pages. Please submit an updated Attachment N (only the affected pages are necessary) and a new Emission Points Data Sheet under a SWN cover letter. I'll continue to work on it using the new numbers.

Thanks

Joe

Entire Document
NON-CONFIDENTIAL

From: Wale Akintayo [mailto:wakintayo@trinityconsultants.com]
Sent: Wednesday, July 15, 2015 12:10 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Apologies, the emission calculations were based on an old ProMax report which was not updated in the emission calculation spreadsheet. Please use the new Promax file (53.39 tpy) I sent you yesterday, as that reflects the estimated emissions from the storage tank.

From: Kessler, Joseph R [mailto:Joseph.R.Kessler@wv.gov]
Sent: Wednesday, July 15, 2015 11:14 AM
To: Wale Akintayo
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

I got your phone message. After looking at it again, I see the water tanks emissions do line up with what is in the application and the condensate numbers are close but off by a couple of tons/year. I incorrectly thought the call-out boxes were referring to the flashing emissions from the LPT and heater-treater. So the final question is why is there a several ton/year discrepancy between the ProMAX numbers and the numbers in the application for the condensate tanks. E.g., uncontrolled flashing emissions from condensate tanks are listed at 57.017 TPY in the application and as 53.39 TPY in the ProMax report.

From: Wale Akintayo [mailto:wakintayo@trinityconsultants.com]
Sent: Wednesday, July 15, 2015 10:25 AM
To: Kessler, Joseph R

ID. No. 069-00109 Reg. 2922F
Company SWN
Facility Charles Frye Region _____
Initials JR

Cc: Tom Muscenti; Kristi Evans

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

The pdf report I sent you represents the uncontrolled emissions for the condensate and water storage tanks exclusive of the compliance margin. If you are available, I could call you to walk you through this. Thanks

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]

Sent: Wednesday, July 15, 2015 10:17 AM

To: Wale Akintayo

Cc: Tom Muscenti; Kristi Evans

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

That would be perfect, but that report only appears to be for the LPT Vertical Tank and the Heater-Treater Tank. Can you provide me the report for the Condensate/Water Storage Tanks? That's what I'm looking for.

Thanks

Joe

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]

Sent: Tuesday, July 14, 2015 4:16 PM

To: Kessler, Joseph R

Cc: Tom Muscenti; Kristi Evans

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Per our phone conversation, I have included the emission values from the ProMax Tanks output Stencil for your records. Please let me know if you have any additional questions. Thanks

Wale

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]

Sent: Tuesday, July 14, 2015 2:50 PM

To: Wale Akintayo

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Yes, thanks.

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]

Sent: Tuesday, July 14, 2015 2:49 PM

To: Kessler, Joseph R

Cc: Kristi Evans; Tom Muscenti

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

If it's okay with you, Could I call you to walk you through the numbers.

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]

Sent: Tuesday, July 14, 2015 2:40 PM

To: Wale Akintayo

Cc: Kristi Evans; Tom Muscenti

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

OK, still not getting the same number. Taking Propane as an example, the ProMax stream "Oil Flash" gives a propane rate of 125.479 lb/hr for all tanks. For each of the six condensate tanks, the uncontrolled annual propane flashing emission rate should be $(125.479/6)*(8760/2000) = 91.60$ TPY. However, the uncontrolled annual propane flashing emission rate from each condensate tank is shown in the permit application Attachment N to be 22.39 TPY. This holds with the other compounds as well.

Thanks

Joe Kessler, PE
Engineer
West Virginia Division of Air Quality
601-57th St., SE
Charleston, WV 25304
Phone: (304) 926-0499 x1219
Fax: (304) 926-0478
Joseph.r.kessler@wv.gov

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Tuesday, July 14, 2015 2:16 PM
To: Kessler, Joseph R
Cc: Kristi Evans; Tom Muscenti
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Attached is the ProMax Input File which includes all streams as requested for the Charles Frye Pad. Please let Kristi or I know if you have any additional needs. Thanks

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Tuesday, July 14, 2015 1:41 PM
To: Kessler, Joseph R
Cc: Wale Akintayo
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Wale Akintayo from Trinity should be contacting you shortly about the Charles Frye Application. My apologies again for not having the application handy when I returned your call.

Thanks,
Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 28, 2015 7:42 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Thanks, that was what I was looking for.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 27, 2015 8:43 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Please find attached the requested ProMax excel file.

Let me know if you need anything else and thanks again for taking the time to speak with me today.

Thanks,

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, May 27, 2015 1:09 PM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Great, thanks for the engine spec sheet. With that, I can deem the application complete. However, I would like the ProMax excel file, that is what I am looking for.

Around 2:00 would be a good time to call.

Thanks

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 27, 2015 11:32 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

I received your message and I have attached a copy of the ProMax file and the Engine Spec Sheet. Please let me know if you need anything else.

I am in a meeting until 1 – is there a time after 1 which if best to call you back?

Thanks,
Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 11:48 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Yes, that is correct. I'll give you a call next week when I go through the initial review of the application and we can talk about the process.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, May 21, 2015 11:47 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Good! SWN and myself are new to WV process, so in going forward once the application has been assigned is it best to address any additional materials directly to the engineer?

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 11:38 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

No, it will find its way to me.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, May 21, 2015 11:35 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

I truly apologize for this, but when I sent it via Fedex yesterday I addressed it to Director Durham. Will there now be an issue with you receiving the original copy? If so, please let me know what I need to do to get this corrected.

Again my apologies.

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 10:54 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Thanks, please send the original to me as well. We need the original as part of our completeness determination. I will do the full completeness determination for R13-2922F by next Wednesday and will let you know if I need anything else.

Thanks

Joe Kessler, PE
Engineer
West Virginia Division of Air Quality
601-57th St., SE

Charleston, WV 25304
Phone: (304) 926-0499 x1219
Fax: (304) 926-0478
Joseph.r.kessler@wv.gov

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 20, 2015 12:17 PM
To: Kessler, Joseph R
Subject: FW: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Mr. Kessler,

Please find attached a scanned copy of the original letter addressed to Director Durham and the original affidavit for the legal advertisement for the Charles Frye Pad – (Plant ID No. 069-00109, Application No. R13-2922F). If there is anything else you need please let know.

Have a good day!

Thanks,
Kristi Evans

Kristi R. Evans, GSP
Southwestern Energy
Health, Safety, and Environmental Coordinator
Corporate HSE Compliance - Air, Assurance, HSE-MIS, & Contractor Management
kristi_evans@swn.com
304-884-1652 – office
304-406-4685 – ccell

From: Rice, Jennifer L [<mailto:Jennifer.L.Rice@wv.gov>]
Sent: Friday, May 01, 2015 9:32 AM
To: Paul Geiger; Kristi Evans
Cc: Kessler, Joseph R; McKeone, Beverly D
Subject: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

**RE: Application Status
SWN Production Company
Charles Frye Pad
Plant ID No. 069-00109
Application No. R13-2922F**

Mr. Geiger,

Your application for a modification permit for the Charles Frye Pad was received by this Division on April 27, 2015, and was assigned to Joe Kessler. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Joe Kessler stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Joe Kessler, at 304-926-0499, extension 1219.

Jennifer Rice
WV Dept. of Environmental Protection
Division of Air Quality
304-926-0499 x1227
Jennifer.L.Rice@wv.gov

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify

us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or

taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

Kessler, Joseph R

From: Kristi Evans <Kristi_Evans@SWN.COM>
Sent: Friday, July 17, 2015 3:44 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

November 2013 – is the manufacture date of the new engine.

Let me know if you need anything else.

Thanks,
Kristi

From: Kessler, Joseph R [mailto:Joseph.R.Kessler@wv.gov]
Sent: Friday, July 17, 2015 10:28 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

And one additional question: What is the specific manufacture date of the new engine?

Thanks

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, July 16, 2015 10:23 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Please see the attached files for the SWN cover letter, Updated Emission Calculations and Updated Emission Points Data documentation. Should you have any questions or concerns please feel free to contact me. I will also place the original cover letter and documentations in the mail today addressed to you.

Thanks,

Kristi Evans

Kristi R. Evans, GSP
Southwestern Energy
Health, Safety, and Environmental Coordinator
Corporate HSE Compliance - Air, Assurance, HSE-MIS, & Contractor Management
kristi.evans@swn.com
304-884-1652 – office
304-406-4685 – cell

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, July 15, 2015 1:17 PM
To: Wale Akintayo
Cc: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

OK, thanks. Even though it's a small change, we need to update the relevant application pages. Please submit an updated Attachment N (only the affected pages are necessary) and a new Emission Points Data Sheet under a SWN cover letter. I'll continue to work on it using the new numbers.

Thanks

Joe

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Wednesday, July 15, 2015 12:10 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Apologies, the emission calculations were based on an old ProMax report which was not updated in the emission calculation spreadsheet. Please use the new Promax file (53.39 tpy) I sent you yesterday, as that reflects the estimated emissions from the storage tank.

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, July 15, 2015 11:14 AM
To: Wale Akintayo
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

I got your phone message. After looking at it again, I see the water tanks emissions do line up with what is in the application and the condensate numbers are close but off by a couple of tons/year. I incorrectly thought the call-out boxes were referring to the flashing emissions from the LPT and heater-treater. So the final question is why is there a several ton/year discrepancy between the ProMAX numbers and the numbers in the application for the condensate tanks. E.g., uncontrolled flashing emissions from condensate tanks are listed at 57.017 TPY in the application and as 53.39 TPY in the ProMax report.

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Wednesday, July 15, 2015 10:25 AM
To: Kessler, Joseph R
Cc: Tom Muscenti; Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
The pdf report I sent you represents the uncontrolled emissions for the condensate and water storage tanks exclusive of the compliance margin. If you are available, I could call you to walk you through this. Thanks

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, July 15, 2015 10:17 AM
To: Wale Akintayo
Cc: Tom Muscenti; Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

That would be perfect, but that report only appears to be for the LPT Vertical Tank and the Heater-Treater Tank. Can you provide me the report for the Condensate/Water Storage Tanks? That's what I'm looking for.

Thanks

Joe

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Tuesday, July 14, 2015 4:16 PM
To: Kessler, Joseph R
Cc: Tom Muscenti; Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Per our phone conversation, I have included the emission values from the ProMax Tanks output Stencil for your records. Please let me know if you have any additional questions. Thanks

Wale

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Tuesday, July 14, 2015 2:50 PM
To: Wale Akintayo
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Yes, thanks.

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Tuesday, July 14, 2015 2:49 PM
To: Kessler, Joseph R
Cc: Kristi Evans; Tom Muscenti
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
If it's okay with you, Could I call you to walk you through the numbers.

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Tuesday, July 14, 2015 2:40 PM
To: Wale Akintayo
Cc: Kristi Evans; Tom Muscenti
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

OK, still not getting the same number. Taking Propane as an example, the ProMax stream "Oil Flash" gives a propane rate of 125.479 lb/hr for all tanks. For each of the six condensate tanks, the uncontrolled annual propane flashing emission rate should be $(125.479/6) * (8760/2000) = 91.60$ TPY. However, the uncontrolled annual propane flashing emission rate from each condensate tank is shown in the permit application Attachment N to be 22.39 TPY. This holds with the other compounds as well.

Thanks

Joe Kessler, PE
Engineer

West Virginia Division of Air Quality
601-57th St., SE
Charleston, WV 25304
Phone: (304) 926-0499 x1219
Fax: (304) 926-0478
Joseph.r.kessler@wv.gov

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Tuesday, July 14, 2015 2:16 PM
To: Kessler, Joseph R
Cc: Kristi Evans; Tom Muscenti
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Attached is the ProMax Input File which includes all streams as requested for the Charles Frye Pad. Please let Kristi or I know if you have any additional needs. Thanks

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Tuesday, July 14, 2015 1:41 PM
To: Kessler, Joseph R
Cc: Wale Akintayo
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Wale Akintayo from Trinity should be contacting you shortly about the Charles Frye Application. My apologies again for not having the application handy when I returned your call.

Thanks,
Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 28, 2015 7:42 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Thanks, that was what I was looking for.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 27, 2015 8:43 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Please find attached the requested ProMax excel file.
Let me know if you need anything else and thanks again for taking the time to speak with me today.

Thanks,

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, May 27, 2015 1:09 PM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Great, thanks for the engine spec sheet. With that, I can deem the application complete. However, I would like the ProMax excel file, that is what I am looking for.

Around 2:00 would be a good time to call.

Thanks

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 27, 2015 11:32 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

I received your message and I have attached a copy of the ProMax file and the Engine Spec Sheet. Please let me know if you need anything else.

I am in a meeting until 1 – is there a time after 1 which is best to call you back?

Thanks,
Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 11:48 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Yes, that is correct. I'll give you a call next week when I go through the initial review of the application and we can talk about the process.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, May 21, 2015 11:47 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Good! SWN and myself are new to WV process, so in going forward once the application has been assigned is it best to address any additional materials directly to the engineer?

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 11:38 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

No, it will find its way to me.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, May 21, 2015 11:35 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

I truly apologize for this, but when I sent it via Fedex yesterday I addressed it to Director Durham. Will there now be an issue with you receiving the original copy? If so, please let me know what I need to do to get this corrected.

Again my apologies.

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 10:54 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Thanks, please send the original to me as well. We need the original as part of our completeness determination. I will do the full completeness determination for R13-2922F by next Wednesday and will let you know if I need anything else.

Thanks

Joe Kessler, PE
Engineer
West Virginia Division of Air Quality
601-57th St., SE
Charleston, WV 25304
Phone: (304) 926-0499 x1219
Fax: (304) 926-0478
Joseph.r.kessler@wv.gov

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 20, 2015 12:17 PM
To: Kessler, Joseph R
Subject: FW: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Mr. Kessler,

Please find attached a scanned copy of the original letter addressed to Director Durham and the original affidavit for the legal advertisement for the Charles Frye Pad – (Plant ID No. 069-00109, Application No. R13-2922F). If there is anything else you need please let know.

Have a good day!

Thanks,
Kristi Evans

Kristi R. Evans, GSP
Southwestern Energy
Health, Safety, and Environmental Coordinator
Corporate HSE Compliance - Air, Assurance, HSE-MIS, & Contractor Management
kristi.evans@swn.com
304-884-1652 – office
304-406-4685 – cell

From: Rice, Jennifer L [<mailto:Jennifer.L.Rice@wv.gov>]
Sent: Friday, May 01, 2015 9:32 AM
To: Paul Geiger; Kristi Evans
Cc: Kessler, Joseph R; McKeone, Beverly D
Subject: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

RE: Application Status
SWN Production Company
Charles Frye Pad
Plant ID No. 069-00109
Application No. R13-2922F

Mr. Geiger,

Your application for a modification permit for the Charles Frye Pad was received by this Division on April 27, 2015, and was assigned to Joe Kessler. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Joe Kessler stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Joe Kessler, at 304-926-0499, extension 1219.

Jennifer Rice
WV Dept. of Environmental Protection
Division of Air Quality
304-926-0499 x1227
Jennifer.L.Rice@wv.gov

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify

us immediately by telephone or return e-mail and promptly delete the original message from your system.
Thank you!

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged

material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Kessler, Joseph R

From: Kristi Evans <Kristi_Evans@SWN.COM>
Sent: Friday, July 17, 2015 3:54 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Deborah Craig is the closest SWN facility.
Latitude 40.047852
Longitude -80.584741

Let me know if you need anything else.

Thanks,
Kristi

From: Kessler, Joseph R [mailto:Joseph.R.Kessler@wv.gov]
Sent: Friday, July 17, 2015 10:08 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

OK, sounds good. Another question: Could you please provide me with the name and latitude/longitude of the closest SWN facility to the Charles Frye Pad?

Thanks

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, July 16, 2015 10:23 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Please see the attached files for the SWN cover letter, Updated Emission Calculations and Updated Emission Points Data documentation. Should you have any questions or concerns please feel free to contact me. I will also place the original cover letter and documentations in the mail today addressed to you.

Thanks,

Kristi Evans

Kristi R. Evans, GSP
Southwestern Energy
Health, Safety, and Environmental Coordinator
Corporate HSE Compliance - Air, Assurance, HSE-MIS, & Contractor Management
kristi_evans@swn.com
304-884-1652 – office
304-406-4685 – cell

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, July 15, 2015 1:17 PM
To: Wale Akintayo
Cc: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

OK, thanks. Even though it's a small change, we need to update the relevant application pages. Please submit an updated Attachment N (only the affected pages are necessary) and a new Emission Points Data Sheet under a SWN cover letter. I'll continue to work on it using the new numbers.

Thanks

Joe

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Wednesday, July 15, 2015 12:10 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Apologies, the emission calculations were based on an old ProMax report which was not updated in the emission calculation spreadsheet. Please use the new Promax file (53.39 tpy) I sent you yesterday, as that reflects the estimated emissions from the storage tank.

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, July 15, 2015 11:14 AM
To: Wale Akintayo
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

I got your phone message. After looking at it again, I see the water tanks emissions do line up with what is in the application and the condensate numbers are close but off by a couple of tons/year. I incorrectly thought the call-out boxes were referring to the flashing emissions from the LPT and heater-treater. So the final question is why is there a several ton/year discrepancy between the ProMAX numbers and the numbers in the application for the condensate tanks. E.g., uncontrolled flashing emissions from condensate tanks are listed at 57.017 TPY in the application and as 53.39 TPY in the ProMax report.

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Wednesday, July 15, 2015 10:25 AM
To: Kessler, Joseph R
Cc: Tom Muscenti; Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
The pdf report I sent you represents the uncontrolled emissions for the condensate and water storage tanks exclusive of the compliance margin. If you are available, I could call you to walk you through this. Thanks

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, July 15, 2015 10:17 AM
To: Wale Akintayo

Cc: Tom Muscenti; Kristi Evans

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

That would be perfect, but that report only appears to be for the LPT Vertical Tank and the Heater-Treater Tank. Can you provide me the report for the Condensate/Water Storage Tanks? That's what I'm looking for.

Thanks

Joe

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]

Sent: Tuesday, July 14, 2015 4:16 PM

To: Kessler, Joseph R

Cc: Tom Muscenti; Kristi Evans

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Per our phone conversation, I have included the emission values from the ProMax Tanks output Stencil for your records. Please let me know if you have any additional questions. Thanks

Wale

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]

Sent: Tuesday, July 14, 2015 2:50 PM

To: Wale Akintayo

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Yes, thanks.

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]

Sent: Tuesday, July 14, 2015 2:49 PM

To: Kessler, Joseph R

Cc: Kristi Evans; Tom Muscenti

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

If it's okay with you, Could I call you to walk you through the numbers.

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]

Sent: Tuesday, July 14, 2015 2:40 PM

To: Wale Akintayo

Cc: Kristi Evans; Tom Muscenti

Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

OK, still not getting the same number. Taking Propane as an example, the ProMax stream "Oil Flash" gives a propane rate of 125.479 lb/hr for all tanks. For each of the six condensate tanks, the uncontrolled annual propane flashing emission rate should be $(125.479/6) * (8760/2000) = 91.60$ TPY. However, the uncontrolled annual propane flashing emission rate from each condensate tank is shown in the permit application Attachment N to be 22.39 TPY. This holds with the other compounds as well.

Thanks

Joe Kessler, PE
Engineer
West Virginia Division of Air Quality
601-57th St., SE
Charleston, WV 25304
Phone: (304) 926-0499 x1219
Fax: (304) 926-0478
Joseph.r.kessler@wv.gov

From: Wale Akintayo [<mailto:wakintayo@trinityconsultants.com>]
Sent: Tuesday, July 14, 2015 2:16 PM
To: Kessler, Joseph R
Cc: Kristi Evans; Tom Muscenti
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Attached is the ProMax Input File which includes all streams as requested for the Charles Frye Pad. Please let Kristi or I know if you have any additional needs. Thanks

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Tuesday, July 14, 2015 1:41 PM
To: Kessler, Joseph R
Cc: Wale Akintayo
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,
Wale Akintayo from Trinity should be contacting you shortly about the Charles Frye Application. My apologies again for not having the application handy when I returned your call.

Thanks,
Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 28, 2015 7:42 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Thanks, that was what I was looking for.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 27, 2015 8:43 PM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

Please find attached the requested ProMax excel file.

Let me know if you need anything else and thanks again for taking the time to speak with me today.

Thanks,

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Wednesday, May 27, 2015 1:09 PM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Great, thanks for the engine spec sheet. With that, I can deem the application complete. However, I would like the ProMax excel file, that is what I am looking for.

Around 2:00 would be a good time to call.

Thanks

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 27, 2015 11:32 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Joe,

I received your message and I have attached a copy of the ProMax file and the Engine Spec Sheet. Please let me know if you need anything else.

I am in a meeting until 1 – is there a time after 1 which if best to call you back?

Thanks,
Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 11:48 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Yes, that is correct. I'll give you a call next week when I go through the initial review of the application and we can talk about the process.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, May 21, 2015 11:47 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Good! SWN and myself are new to WV process, so in going forward once the application has been assigned is it best to address any additional materials directly to the engineer?

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 11:38 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

No, it will find its way to me.

Joe

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Thursday, May 21, 2015 11:35 AM
To: Kessler, Joseph R
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

I truly apologize for this, but when I sent it via Fedex yesterday I addressed it to Director Durham. Will there now be an issue with you receiving the original copy? If so, please let me know what I need to do to get this corrected.

Again my apologies.

Kristi

From: Kessler, Joseph R [<mailto:Joseph.R.Kessler@wv.gov>]
Sent: Thursday, May 21, 2015 10:54 AM
To: Kristi Evans
Subject: RE: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Thanks, please send the original to me as well. We need the original as part of our completeness determination. I will do the full completeness determination for R13-2922F by next Wednesday and will let you know if I need anything else.

Thanks

Joe Kessler, PE
Engineer
West Virginia Division of Air Quality
601-57th St., SE
Charleston, WV 25304
Phone: (304) 926-0499 x1219
Fax: (304) 926-0478
Joseph.r.kessler@wv.gov

From: Kristi Evans [mailto:Kristi_Evans@SWN.COM]
Sent: Wednesday, May 20, 2015 12:17 PM
To: Kessler, Joseph R
Subject: FW: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

Mr. Kessler,

Please find attached a scanned copy of the original letter addressed to Director Durham and the original affidavit for the legal advertisement for the Charles Frye Pad – (Plant ID No. 069-00109, Application No. R13-2922F). If there is anything else you need please let know.

Have a good day!

Thanks,
Kristi Evans

Kristi R. Evans, GSP
Southwestern Energy
Health, Safety, and Environmental Coordinator
Corporate HSE Compliance - Air, Assurance, HSE-MIS, & Contractor Management
kristi.evans@swn.com
304-884-1652 – office
304-406-4685 – cell

From: Rice, Jennifer L [<mailto:Jennifer.L.Rice@wv.gov>]
Sent: Friday, May 01, 2015 9:32 AM
To: Paul Geiger; Kristi Evans
Cc: Kessler, Joseph R; McKeone, Beverly D
Subject: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

**RE: Application Status
SWN Production Company
Charles Frye Pad
Plant ID No. 069-00109
Application No. R13-2922F**

Mr. Geiger,

Your application for a modification permit for the Charles Frye Pad was received by this Division on April 27, 2015, and was assigned to Joe Kessler. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Joe Kessler stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Joe Kessler, at 304-926-0499, extension 1219.

Jennifer Rice
WV Dept. of Environmental Protection
Division of Air Quality
304-926-0499 x1227
Jennifer.L.Rice@wv.gov

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify

us immediately by telephone or return e-mail and promptly delete the original message from your system.
Thank you!

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged

material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

Thank you!

Flash Emissions Report

Annual Emissions

Tank Flashed at the daily maximum surface temperature (61.79 °F) and the atmospheric pressure of Burlington, WV (9.677E+04 Pa)

Component	Flashing Losses (ton/yr)
Mixture	55.49
Propane	20.42
Isobutane	5.151
n-Butane	25.66
Isopentane	3.236
n-Pentane	4.342
n-Hexane	1.104
Methylcyclopentane	0.00833
Benzene	0.01289
Cyclohexane	0.1199
n-Heptane	0.3486
n-Octane	0.185
n-Nonane	0.0373
n-Decane	0.0112
n-Undecane	0.007116
Dodecane	0
Tristyrene Glycol	0
Cyclopentane	0.008281
Isoketane	0
3-Methylpentane	1.328
Styrene	1.342
2,3-Dimethylbutane	3.1482
Methylcyclohexane	0.1522
Isocetane	0
Decane, 2-Methyl-	0
Toluene	0.01531
m-Xylene	0.017
Ethylbenzene	0.005984

Forman AP-42 Emissions Report			
Actual Emissions			
Vertical Cylinder			
Component	Working Losses (ton/yr)	Breathing Losses (ton/yr)	Total Losses (ton/yr)
Mixture	44.74	10.74	55.52
Propane	10	0.827	22.34
Isobutane	4.223	1.019	3.248
n-Butane	13.07	3.15	16.22
Isopentane	2.865	0.6179	3.183
n-Pentane	3.394	0.8175	4.211
n-Hexane	0.246	0.2038	1.05
Methylcyclopentane	0.06167	0.01485	0.07653
Benzene	0.000065	0.001461	0.007526
Cyclohexane	0.07668	0.01847	0.09516
n-Heptane	0.2442	0.05124	0.3054
n-Octane	0.127	0.0306	0.1576
n-Nonane	0.02517	0.006064	0.03124
n-Decane	0.007028	0.001693	0.008721
n-Undecane	0.004374	0.001054	0.005427
Dodecane	0	0	0
Trichloroethylene Glycol	0	0	0
Cyclopentane	0.005621	0.001369	0.00705
Isobutane	0	0	0
3-Methylpentane	0.7952	0.1916	0.9868
Diobutane	1.947	0.2521	1.239
2,3-Dimethylbutane	0.1258	0.02789	0.1536
Methylcyclohexane	0.09064	0.02184	0.1125
Isopentane	0	0	0
Decane, 1-methyl-	0	0	0
Toluene	0.009374	0.002258	0.01163
m-Xylene	0.008977	0.002168	0.01114
Ethylbenzene	0.005194	0.007694	0.00963

Exit Source ...

Furnace Loading Losses Report

Annual Emissions

Tank Truck or Rail Tank Car with Submerged Loading: Dedicated Normal Service

Component	Loading Losses (ton/yr)
Mixture	19.27
Propane	7.796
Isobutane	1.822
n-Butane	8.633
Isopentane	1.105
n-Pentane	1.482
n-Hexane	0.3688
Methylcyclopentane	0.02897
Benzene	0.000618
Cyclohexane	0.05504
n-Heptane	0.3082
n-Octane	0.05172
n-Nonane	0.01685
n-Decane	0.003228
n-Undecane	0.001111
Dodecane	0
Tridecane	0
Tetradecane	0
Cyclopentane	0.002447
Isobutane	0
i-Methylpentane	0.3426
Neohexane	0.4669
2,3-Dimethylbutane	0.04917
Methylcyclohexane	0.03905
Isooctane	0
Benzene, 2-Methyl-	0
Toluene	0.004039
m-Xylene	0.003666
Ethylbenzene	0.001576

Promax RP-42 Emissions Report

Annual Emissions
Vertical Cylinder

Component	Working Losses (ton/yr)	Breathing Losses (ton/yr)	Total Losses (ton/yr)
Mixture	7.431	0	7.431
Propane	7.341	0	7.341
Isobutane	0.0858	0	0.0858
n-Butane	0.7294	0	0.7294
Isopentane	0.32623	0	0.32623
n-Pentane	0.02823	0	0.02823
n-Hexane	0.000482	0	0.000482
Methylcyclopentane	0.001077	0	0.001077
Benzene	0.009616	0	0.009616
Cyclohexane	0.002219	0	0.002219
n-Heptane	4.551E-05	0	4.551E-05
n-Octane	4.193E-06	0	4.193E-06
n-Nonane	2.309E-06	0	2.309E-06
n-Decane	1.182E-07	0	1.182E-07
n-Undecane	4.602E-08	0	4.602E-08
Dodecane	0	0	0
Tristyrene Glycol	0	0	0
Cyclopentane	0.000455	0	0.000455
Isobutene	0	0	0
3-Methylpentane	0.003589	0	0.003589
Hexane	0.007899	0	0.007899
2,3-Dimethylbutane	0.000251	0	0.000251
Methylcyclohexane	0.000368	0	0.000368
Isocetane	0	0	0
Decane, 1-Methyl-	0	0	0
Toluene	0.003583	0	0.003583
m-Xylene	0.0009114	0	0.0009114
Ethylbenzene	0.000342	0	0.000342

Promax Loading Losses Report
 Annual Emissions
 Tank Truck or Rail Tank Car with Submerged Loading: Dedicated Normal Service

Components	Loading Losses (ton/yr)
Mixture	2.351
Propane	2.667
Isobutane	0.02855
n-Butane	0.2579
Isopentane	0.009276
n-Pentane	0.009488
n-Hexane	0.001634
Methylcyclopentane	0.003821
Hexane	0.0034
Cyclohexane	0.007846
n-Heptane	1.609E-05
n-Octane	1.482E-06
n-Nonane	7.423E-07
n-Decane	4.260E-08
n-Undecane	1.651E-08
Dodecane	0
Dichloro Ethyl	0
Cyclopentane	0.001609
Isobutene	0
3-Methylpentane	0.001269
Hexane	0.002084
2,4-Dimethylbutane	0.001068
Methylcyclohexane	0.001371
Isooctane	0
Decane, 2-Methyl-	0
Toluene	0.001286
m-Xylene	0.003223
Ethylbenzene	0.001252

Flash Emissions Report

Actual Emissions

Tank flashed at the daily maximum surface temperature (61.73 °F) and the atmospheric pressure of Huntington, WV (9.875E+04 Pa)

Component	Flashing Losses (ton/yr)
Methane	3.182
Propane	1.683
Isobutane	0.1407
n-Butane	0.6176
Isopentane	0.1267
n-Pentane	0.1857
n-Hexane	0.02884
Methylcyclopentane	0.007087
Benzene	0.001733
Cyclohexane	0.01374
n-Heptane	0.00734
n-Octane	0.004211
n-Nonane	0.002166
n-Decane	0.000821
n-Undecane	0.000482
Dodecane	0
Tristyrene Glycol	0
Cyclopentane	0.0007331
Isobutane	0
3-Methylpentane	0.08677
Nobexane	0.02429
2,3-Dimethylbutane	0.088196
Methylcyclohexane	0.01161
Isocetane	0
Decane, 2-Methyl-	0
Toluene	0.002793
m-Xylene	0.002596
Ethylbenzene	0.0068723

Flashing Emissions Report	
Annual Emissions	
Tank flashed at the daily maximum surface temperature (61.79 °F) and the atmospheric pressure of Huntington, WV (9.877E+04 Pa)	
Components	Flashing Losses (ton/yr)
Mixture	3.102
Propane	1.652
Isobutane	0.1487
n-Butane	0.8176
Isopentane	0.1267
n-Pentane	0.1857
n-Hexane	0.02854
Methylcyclopentane	0.007087
Benzene	0.001732
Cyclohexane	0.01374
n-Heptane	0.00734
n-Octane	0.004211
n-Nonane	0.002166
n-Decane	0.0005521
n-Undecane	0.000482
Dodecane	0
Triethylene Glycol	0
Cyclopentane	0.0007331
Isohexane	0
3-Methylpentane	0.05677
Neohexane	0.02429
2,3-Dimethylbutane	0.005196
Methylcyclohexane	0.01151
Isooctane	0
Decane, 2-Methyl-	0
Toluene	0.002793
m-Xylene	0.002596
Ethylbenzene	0.0008723

Promax AP-42 Emissions Report			
Annual Emissions			
Vertical Cylinder			
Components	Working Losses (ton/yr)	Breathing Losses (ton/yr)	Total Losses (ton/yr)
Mixture	8.431	0	8.431
Propane	7.541	0	7.541
Isobutane	0.08358	0	0.08358
n-Butane	0.7294	0	0.7294
Isopentane	0.02623	0	0.02623
n-Pentane	0.02683	0	0.02683
n-Hexane	0.000462	0	0.000462
Methylcyclopentane	0.001077	0	0.001077
Benzene	0.009616	0	0.009616
Cyclohexane	0.002219	0	0.002219
n-Heptane	4.55E-05	0	4.55E-05
n-Octane	4.19E-06	0	4.19E-06
n-Nonane	2.10E-06	0	2.10E-06
n-Decane	1.19E-07	0	1.19E-07
n-Undecane	4.67E-08	0	4.67E-08
Dodecane	0	0	0
Triethylene Glycol	0	0	0
Cyclopentane	0.000455	0	0.000455
Isohexane	0	0	0
3-Methylpentane	0.003589	0	0.003589
Neohexane	0.0007589	0	0.0007589
2,3-Dimethylbutane	0.0002851	0	0.0002851
Methylcyclohexane	0.000368	0	0.000368
Isooctane	0	0	0
Decane, 2-Methyl-	0	0	0
Toluene	0.003553	0	0.003553
m-Xylene	0.0009114	0	0.0009114
Ethylbenzene	0.0003542	0	0.0003542

Promax Loading Losses Report	
Annual Emissions	
Tank Truck or Rail Tank Car with Submerged Loading: Dedicated Normal Service	
Components	Loading Losses (ton/yr)
Mixture	2.981
Propane	2.667
Isobutane	0.02955
n-Butane	0.2579
Isopentane	0.009276
n-Pentane	0.009488
n-Hexane	0.0001634
Methylcyclopentane	0.000381
Benzene	0.0034
Cyclohexane	0.0007846
n-Heptane	1.61E-05
n-Octane	1.48E-06
n-Nonane	7.42E-07
n-Decane	4.20E-08
n-Undecane	1.65E-08
Dodecane	0
Triethylene Glycol	0
Cyclopentane	0.0001609
isohexane	0
3-Methylpentane	0.001269
Neohexane	0.0002684
2,3-Dimethylbutane	0.0001008
Methylcyclohexane	0.0001301
Isooctane	0
Decane, 2-Methyl-	0
Toluene	0.001256
m-Xylene	0.0003223
Ethylbenzene	0.0001252

Flashing Emissions Report	
Annual Emissions	
Tank flashed at the daily maximum surface temperature (61.79 °F) and the atmospheric pressure of Huntington, WV (9.877E+04 Pa)	
Components	Flashing Losses (ton/yr)
Mixture	53.39
Propane	20.42
Isobutane	5.131
n-Butane	15.66
Isopentane	3.236
n-Pentane	4.342
n-Hexane	1.104
Methylcyclopentane	0.08823
Benzene	0.01289
Cyclohexane	0.1199
n-Heptane	0.3466
n-Octane	0.185
n-Nonane	0.0373
n-Decane	0.0112
n-Undecane	0.007116
Dodecane	0
Triethylene Glycol	0
Cyclopentane	0.008281
Isohexane	0
3-Methylpentane	1.028
Neohexane	1.332
2,3-Dimethylbutane	0.1483
Methylcyclohexane	0.1322
Isooctane	0
Decane, 2-Methyl-	0
Toluene	0.01831
m-Xylene	0.017
Ethylbenzene	0.005984

Promax AP-42 Emissions Report			
Annual Emissions			
Vertical Cylinder			
Components	Working Losses (ton/yr)	Breathing Losses (ton/yr)	Total Losses (ton/yr)
Mixture	44.74	10.78	55.52
Propane	18	4.337	22.34
Isobutane	4.229	1.019	5.248
n-Butane	13.07	3.15	16.22
Isopentane	2.565	0.6179	3.183
n-Pentane	3.394	0.8175	4.211
n-Hexane	0.846	0.2038	1.05
Methylcyclopentane	0.06167	0.01486	0.07653
Benzene	0.006065	0.001461	0.007526
Cyclohexane	0.07668	0.01847	0.09516
n-Heptane	0.2442	0.05884	0.3031
n-Octane	0.127	0.0306	0.1576
n-Nonane	0.02517	0.006064	0.03124
n-Decane	0.007028	0.001693	0.008721
n-Undecane	0.004374	0.001054	0.005427
Dodecane	0	0	0
Triethylene Glycol	0	0	0
Cyclopentane	0.005681	0.001369	0.00705
Isohexane	0	0	0
3-Methylpentane	0.7952	0.1916	0.9868
Neohexane	1.047	0.2521	1.299
2,3-Dimethylbutane	0.1158	0.02789	0.1436
Methylcyclohexane	0.09064	0.02184	0.1125
Isooctane	0	0	0
Decane, 2-Methyl-	0	0	0
Toluene	0.009374	0.002258	0.01163
m-Xylene	0.008977	0.002163	0.01114
Ethylbenzene	0.003194	0.0007694	0.003963

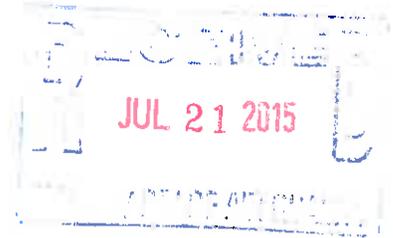
Promax Loading Losses Report	
Annual Emissions	
Tank Truck or Rail Tank Car with Submerged Loading: Dedicated Normal Service	
Components	Loading Losses (ton/yr)
Mixture	19.27
Propane	7.756
Isobutane	1.822
n-Butane	5.633
Isopentane	1.105
n-Pentane	1.462
n-Hexane	0.3645
Methylcyclopentane	0.02657
Benzene	0.002613
Cyclohexane	0.03304
n-Heptane	0.1052
n-Octane	0.05472
n-Nonane	0.01085
n-Decane	0.003028
n-Undecane	0.001884
Dodecane	0
Triethylene Glycol	0
Cyclopentane	0.002447
Isohexane	0
3-Methylpentane	0.3426
Neohexane	0.4509
2,3-Dimethylbutane	0.04987
Methylcyclohexane	0.03905
Isooctane	0
Decane, 2-Methyl-	0
Toluene	0.004039
m-Xylene	0.003868
Ethylbenzene	0.001376



July 16, 2015

Mr. Joe Kessler
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, Wv 25304

Re: Southwestern Production Company, LLC
Charles Frye Pad
R13 Modification
Updated Emission Documents



Dear Mr. Kessler:

Please find attached the updated Emission Calculations and Emission Points Data sheet pertaining to R13 Modification for the Charles Frye Pad in Ohio County, Wv.

Should you have any question or require further information, please feel free to contact me at 304-884-1652 or by email at kristi_evans@swn.com.

Sincerely,

Kristi Evans
HS&E Coordinator

Entire Document
NON-CONFIDENTIAL

I.D. No. 009-0109 Reg. # 2922F
Company SWN
Facility CHARLES FRYE Region _____
Initials JEL



The Right People doing the Right Things,
wisely investing the cash flow from our
underlying Assets, will create Value+[®]

Company Name: SWN Production Company, LLC
 Facility Name: Charles Frue Wellhead
 Project Description: R12 Modification

Site Wide Summary

Emission Source	Value	Units	Emission Unit ID(s)	Emission Point ID(s)	Control Device
Wells	6	per pad	---	---	---
Compressor Engine	2	per pad	EU-MC4219, EU-MC-220	EP-MC4219, EP-MC4220	NSCR Catalyst
Condensate Tanks	6	per pad	EU-TANKS-COND	EP-TANKS-COND	Vapor Recovery Unit
Produced Water Tanks	6	per pad	EU-TANKS-PW	EP-TANKS-PW	Vapor Recovery Unit
Line Heaters	3	per pad	EU-LH1 - EU-LH3	EP-LH1 - EP-LH3	None
GPU Burners	6	per pad	EU-GPU1 - EU-GPU3, EU-GPU4 - EU-GPU6	EP-GPU1 - EP-GPU3, EP-GPU4 - EP-GPU6	None
Heater Treaters	2	per pad	EU-HT1 - EU-HT2	EP-HT1 - EP-HT2	None
Dehydrator(s)	0	per pad	---	---	---
Reboiler(s)	0	per pad	---	---	---
Dehy Drip Tank	0	per pad	---	---	---
Vapor Combustor	1	per pad	APC-COMB-TKLD	APC-COMB-TKLD	---
Vapor Combustor Pilot	1	per pad	EU-PILOT	EP-PILOT	---
Vapor Recovery Unit	1	per pad	APC-VRU	APC-VRU	---
Length of lease road	1,473	feet	---	---	---
Low Pressure Towers	3	per pad	---	---	---

Constituent	Condensate Tanks (tpy)	Produced Water Tanks (tpy)	Compressor (tpy)	Compressor Engines (tpy)	Line Heaters (tpy)	GPU Burners (tpy)	Heater Treaters (tpy)	Fugitive Comps (tpy)	Condensate Loading (tpy)	Produced Water Loading (tpy)	Hand Road (tpy)	Total Emissions (tpy)
Criteria Pollutants												
NO _x	---	---	7.28	2.80	2,178	2.90	0.48	---	---	---	---	15.65
CO	---	---	6.12	5.60	1,829	2.44	0.11	---	---	---	---	16.39
PM ₁₀ Total	---	---	0.55	0.21	0.166	0.22	0.04	---	---	---	11.27	12.46
PM _{2.5} Total	---	---	0.55	0.21	0.166	0.22	0.04	---	---	---	---	4.06
PM _{10-2.5} Total	---	---	0.55	0.21	0.166	0.22	0.04	---	---	---	---	1.48
SO _x	---	---	0.04	0.01	0.013	0.02	0.09	---	---	---	---	0.88
VOC	8.17	0.86	---	2.10	0.120	0.16	0.03	4.03	19.27	2.98	---	37.72
Greenhouse Gases												
CO ₂	---	---	7,709.91	1358.16	2,306.02	3,074.69	512.45	0.08	---	---	---	14,961
CH ₄	---	---	0.15	5.24	0.04	5.8E-02	0.01	13.84	---	---	---	19
N ₂ O	---	---	0.01	0.00	0.00	5.8E-03	0.00	---	---	---	---	0
CO ₂ e	---	---	7,717.87	1,389.79	2,308.40	3,077.86	512.98	346.00	---	---	---	15,453
Hazardous Air Pollutants												
Methylnaphthalene (2-)	---	---	---	---	5.2E-07	7.0E-07	1.2E-07	---	---	---	---	1.3E-06
Methylchlorobenzene (3-)	---	---	---	---	3.9E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Dibenz(a,h)anthracene (7,12-)	---	---	---	---	3.5E-07	4.6E-07	7.7E-08	---	---	---	---	8.9E-07
Acenaphthene	---	---	---	---	3.9E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Acenaphthylene	---	---	---	---	3.9E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Anthracene	---	---	---	---	5.2E-08	7.0E-08	1.2E-08	---	---	---	---	1.3E-07
Benzo(a)anthracene	---	---	---	---	3.9E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Benzene	1.5E-03	8.3E-04	---	1.7E-02	4.6E-05	6.1E-05	1.0E-05	---	2.6E-03	3.4E-03	---	2.6E-02
Benzo(a)pyrene	---	---	---	---	2.6E-08	3.5E-08	5.8E-09	---	---	---	---	6.7E-08
Benzo(b)fluoranthene	---	---	---	---	3.9E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Benzo(g,h,i)perylene	---	---	---	---	2.6E-08	3.5E-08	5.8E-09	---	---	---	---	6.7E-08
Benzo(k)fluoranthene	---	---	---	---	3.9E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Chrysene	---	---	---	---	3.9E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Dibenz(a,h)anthracene	---	---	---	---	2.6E-08	3.5E-08	5.8E-09	---	---	---	---	6.7E-08
Dichlorobenzene	---	---	---	---	2.6E-05	3.5E-05	5.8E-06	---	---	---	---	6.7E-05
Fluoranthene	---	---	---	---	6.5E-08	8.7E-08	1.5E-08	---	---	---	---	1.7E-07
Fluorene	---	---	---	---	6.1E-08	8.1E-08	1.1E-08	---	---	---	---	1.6E-07
Formaldehyde	---	---	---	---	1.5E-03	2.2E-03	3.6E-04	---	---	---	---	4.2E-03
Heptane, n-	1.6E-01	2.2E-03	---	---	3.9E-02	5.2E-02	8.7E-03	---	3.6E-01	1.6E-04	---	6.3E-01
Indeno(1,2,3-cd)pyrene	---	---	---	---	3.7E-08	5.2E-08	8.7E-09	---	---	---	---	1.0E-07
Naphthalene	---	---	---	1.1E-03	1.3E-05	1.8E-05	3.0E-06	---	---	---	---	1.1E-03
Phenanthrene	---	---	---	---	3.7E-07	4.9E-07	8.2E-08	---	---	---	---	9.5E-07
Pyrene	---	---	---	---	1.1E-07	1.5E-07	2.1E-08	---	---	---	---	2.8E-07
Toluene	2.2E-03	4.8E-04	---	6.1E-03	7.4E-05	9.9E-05	1.6E-05	---	4.0E-03	1.3E-03	---	1.4E-02
Arsenic	---	---	---	---	4.1E-06	5.8E-06	9.7E-07	---	---	---	---	1.1E-05
Beryllium	---	---	---	---	2.6E-07	3.5E-07	5.8E-08	---	---	---	---	6.7E-07
Cadmium	---	---	---	---	2.7E-05	3.2E-05	5.3E-06	---	---	---	---	6.1E-05
Chromium	---	---	---	---	3.0E-05	4.1E-05	6.8E-06	---	---	---	---	7.9E-05
Cobalt	---	---	---	---	1.8E-06	2.4E-06	4.1E-07	---	---	---	---	4.7E-06
Manganese	---	---	---	---	8.3E-06	1.1E-05	1.8E-06	---	---	---	---	2.1E-05
Mercury	---	---	---	---	5.7E-06	7.6E-06	1.3E-06	---	---	---	---	1.4E-05
Nickel	---	---	---	---	4.6E-05	6.1E-05	1.0E-05	---	---	---	---	1.2E-04
Selenium	---	---	---	---	5.2E-07	7.0E-07	1.2E-07	---	---	---	---	1.3E-06
1,1-Dibenzene	7.5E-04	9.2E-05	---	2.7E-04	---	---	---	---	1.4E-03	1.3E-04	---	2.6E-03
Trimethylpentane (2,2,4-)	---	---	---	---	---	---	---	---	---	---	---	0.0E+00
Xylene	2.1E-03	2.6E-04	---	2.1E-03	---	---	---	---	3.9E-03	3.2E-04	---	8.7E-03
1,1,2,2-Tetrachloroethane	---	---	---	2.8E-04	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	---	---	---	1.7E-04	---	---	---	---	---	---	---	---
1,3-Butadiene	---	---	---	7.3E-03	---	---	---	---	---	---	---	---
1,3-Dichloropropene	---	---	---	1.4E-04	---	---	---	---	---	---	---	---
Acetaldehyde	---	---	---	3.1E-02	---	---	---	---	---	---	---	---
Acrolein	---	---	---	2.9E-02	---	---	---	---	---	---	---	---
Carbon Tetrachloride	---	---	---	1.9E-04	---	---	---	---	---	---	---	---
Chlorobenzene	---	---	---	1.4E-04	---	---	---	---	---	---	---	---
Chloroform	---	---	---	1.5E-04	---	---	---	---	---	---	---	---
Ethylene Dibromide	---	---	---	2.3E-04	---	---	---	---	---	---	---	---
Methanol	---	---	---	3.4E-02	---	---	---	---	---	---	---	---
Methylene Chloride	---	---	---	4.5E-04	---	---	---	---	---	---	---	---
PAH	---	---	---	1.5E-03	---	---	---	---	---	---	---	---
Styrene	---	---	---	1.3E-04	---	---	---	---	---	---	---	---
Vinyl Chloride	---	---	---	7.9E-05	---	---	---	---	---	---	---	---
Total HAP	0.17	0.00	---	0.89	0.04	0.05	0.01	0.07	0.38	0.01	---	1.62

Company Name: SWN Production Company, LLC
Facility Name: Charles Frye Wellpad
Project Description: R13 Modification

Condensate Storage Tanks

Throughput Parameter	Value	Units
Operational Hours	8,760	hrs/yr
Total Condensate Throughput	1,440	bbl/day

Description	Potential Throughput (gal/yr)
Condensate	22,075,200

Condensate Storage Tanks (400 bbl, each) - Uncontrolled (Total)

Constituent	Working Emissions	Breathing Emissions	Flashing Emissions	Total Emissions ¹	
	tpy	tpy	tpy	lb/hr	tpy
Propane	18.00	4.34	20.42	14.643	64.14
Isobutane	4.23	1.02	5.13	3.554	15.57
n-Butane	13.07	3.15	15.66	10.918	47.82
Isopentane	2.57	0.62	3.24	2.198	9.63
n-Pentane	3.39	0.82	4.34	2.929	12.83
n-Hexane	0.85	0.20	1.10	0.738	3.23
Methylcyclopentane	0.06	0.01	0.09	0.056	0.25
Benzene	0.01	0.00	0.01	0.007	0.03
Cyclohexane	0.08	0.02	0.12	0.074	0.32
n-Heptane	0.24	0.06	0.35	0.222	0.97
n-Octane	0.13	0.03	0.19	0.117	0.51
n-Nonane	0.03	0.01	0.04	0.023	0.10
n-Decane	0.01	0.00	0.01	0.007	0.03
n-Undecane	0.00	0.00	0.01	0.004	0.02
Dodecane	0.00	0.00	0.00	<0.01	<0.01
Triethylene Glycol	0.00	0.00	0.00	<0.01	<0.01
Cyclopentane	0.01	0.00	0.01	0.005	0.02
Isohexane	0.00	0.00	0.00	<0.01	<0.01
3-Methylpentane	0.80	0.19	1.03	0.690	3.02
Neohexane	1.05	0.25	1.33	0.901	3.95
2,3-Dimethylbutane	0.12	0.03	0.15	0.100	0.44
Methylcyclohexane	0.09	0.02	0.13	0.084	0.37
Isooctane	0.00	0.00	0.00	<0.01	<0.01
Decane, 2-Methyl-	0.00	0.00	0.00	<0.01	<0.01
Toluene	0.01	0.00	0.02	0.010	0.04
m-Xylene	0.01	0.00	0.02	0.010	0.04
Ethylbenzene	0.00	0.00	0.01	0.003	0.01
Total Emissions:	44.732	10.778	53.391	37.295	163.352
Total VOC Emissions:	44.732	10.778	53.391	37.295	163.352
Total HAP Emissions:	0.874	0.210	1.158	0.768	3.363

¹ Emissions calculated using ProMax Software. ProMax software provides estimates for working, breathing, and flashing losses associated with total throughput (i.e. emissions from all tanks at the facility). A 50 percent compliance margin was added to total storage tank emissions

Company Name: SWN Production Company, LLC
Facility Name: Charles Frye Wellpad
Project Description: R13 Modification

Condensate Storage Tanks

Condensate Storage Tanks (400 bbl, each) - Controlled (Total)

Constituent	Total Emissions ¹	
	lb/hr	tpy
Propane	0.732	3.207
Isobutane	0.178	0.778
n-Butane	0.546	2.391
Isopentane	0.110	0.481
n-Pentane	0.146	0.642
n-Hexane	0.037	0.162
Methylcyclopentane	0.003	0.012
Benzene	0.000	0.002
Cyclohexane	0.004	0.016
n-Heptane	0.011	0.049
n-Octane	0.006	0.026
n-Nonane	0.001	0.005
n-Decane	0.000	0.001
n-Undecane	0.000	0.001
Dodecane	<0.01	<0.01
Triethylene Glycol	<0.01	<0.01
Cyclopentane	0.000	0.001
Isohexane	<0.01	<0.01
3-Methylpentane	0.035	0.151
Neohexane	0.045	0.197
2,3-Dimethylbutane	0.005	0.022
Methylcyclohexane	0.004	0.018
Isooctane	<0.01	<0.01
Decane, 2-Methyl-	<0.01	<0.01
Toluene	0.001	0.002
m-Xylene	0.000	0.002
Ethylbenzene	0.000	0.001
Total Emissions:	1.865	8.168
Total VOC Emissions:	1.865	8.168
Total HAP Emissions:	0.038	0.168

¹ Vapors will be routed to the vapor combustor with a 98% control efficiency in the event of any VRU downtime. An overall control efficiency of 95% is used for the purpose of establishing PTE.

Company Name: SWN Production Company, LLC
Facility Name: Charles Frye Wellpad
Project Description: R13 Modification

Condensate Storage Tanks

Control Efficiency of Combustor	98%
Pilot Rating	0.05 MMBtu/hr
Combustor Rating	15 MMBtu/hr

Enclosed Combustor Emissions¹

Pollutant ²	Emission Factor (lb/MMBtu)	Combustor Potential Emissions		Pilot Potential Emissions	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)
NO _x	0.110	1.66	7.26	0.01	0.02
CO	0.093	1.39	6.10	0.00	0.02
PM/PM ₁₀	0.008	0.13	0.55	3.8E-04	0.002
SO ₂	6.6E-04	0.01	0.04	3.0E-05	1.31E-04
CO ₂ (Natural Gas Firing)	116.997	1754.96	7686.72	5.294	23.188
CH ₄ (Natural Gas Firing)	0.002	0.03	0.14	1.0E-04	4.37E-04
N ₂ O (Natural Gas Firing)	2.2E-04	0.00	0.01	1.0E-05	4.37E-05

¹ Emission factors from AP-42 Ch. 1.4 for natural gas combustion were used as they were determined to be most representative of the process. Ch. 5.3 (Natural Gas Processing) was consulted, however, factors contained there are appropriate for amine gas sweetening processes, which is not the case at this facility. Also, Ch. 13.5 (Industrial Flares) was consulted, but since the control device in this case is an enclosed combustor vs. an elevated flare, these factors were also determined to be inappropriate.

² GHG Emission factors from Tables C-1 and C-2, 40 CFR 98, Subpart C.

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
EP-MC4219	Upward vertical stack	EP-MC4219	Caterpillar G3306 NA Engine	—	NSCR	NA	NA	NO _x CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO ₂ e	4.31 18.90 18.90 <0.01 0.02 0.16 164	18.90 18.90 <0.01 0.11 0.67 717	0.32 0.64 <0.01 0.02 0.16 164	1.40 2.80 <0.01 0.67 717	Gas/Vapor	O ^A	NA
EP-MC4220	Upward vertical stack	EP-MC4220	Caterpillar G3306 NA Engine	—	NSCR	NA	NA	NO _x CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO ₂ e	4.31 18.90 <0.01 0.02 0.16 164	18.90 18.90 <0.01 0.11 0.67 717	0.32 0.64 <0.01 0.02 0.16 164	1.40 2.80 <0.01 0.67 717	Gas/Vapor	O ^A	NA
EP-GPU1 – EP-GPU6 (total)	Upward vertical stack	EP-GPU1 – EP-GPU6	GPU Burners	NA	None	NA	NA	NO _x CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO ₂ e	0.66 0.56 <0.01 0.05 0.04 703	2.90 2.44 0.02 0.22 0.16 3.078	0.66 0.56 <0.01 0.05 0.04 703	2.90 2.44 0.02 0.22 0.16 3.078	Gas/Vapor	O ^B	NA
EP-HTR1 – EP-HTR2 (total)	Upward vertical stack	EU-HTR1 – EU-HTR2	Heater Treaters	NA	None	NA	NA	NO _x CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO ₂ e	0.11 0.09 <0.01 <0.01 <0.01 117	0.48 0.41 <0.01 0.04 0.03 513	0.11 0.09 <0.01 <0.01 <0.01 117	0.48 0.41 <0.01 0.04 0.03 513	Gas/Vapor	O ^B	NA
EP-LH1 – EP-LH4 (total)	Upward vertical stack	EU-LH1 – EU-LH4	Line Heaters	NA	None	NA	NA	NO _x CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO ₂ e	0.50 0.42 <0.01 0.04 0.03 527	2.18 1.83 0.01 0.17 0.12 2,308	0.50 0.42 <0.01 0.04 0.03 527	2.18 1.83 0.01 0.17 0.12 2,308	Gas/Vapor	O ^B	NA
EP-TANKS-COND	Tank vent(s)	EU-TANKS-COND	Six (6) Condensate Tanks	—	VRU APC-COMB-TKLD	NA	NA	VOC HAP	37.30 0.77	163.35 3.36	1.86 0.04	8.17 0.17	Gas/Vapor	O ^C	NA
EP-TANKS-PW	Tank vent(s)	EU-TANKS-PW	Six (6) Produced Water Tanks	—	VRU APC-COMB-TKLD	NA	NA	VOC HAP	3.95 0.02	17.30 0.08	0.20 <0.01	0.86 <0.01	Gas/Vapor	O ^C	NA

EP-LOAD-COND	Fugitive	EU-LOAD-COND	Condensate Tank Loading	--	VRU APC-COMB-TKLD	NA	NA	VOC HAP	N/A	64.25 1.25	N/A	19.28 0.38	Gas/Vapor	O ^c
EP-LOAD-PW	Fugitive	EU-LOAD-PW	Produced Water Tank Loading	--	VRU APC-COMB-TKLD	NA	NA	VOC HAP	N/A	9.94 0.02	N/A	2.98 0.01	Gas/Vapor	O ^c
EP-PILOT	Upward vertical stack	EU-PILOT	Vapor Combustor Pilot	NA	NA	NA	NA	NO _x CO SO ₂ PM/PM ₁₀ /PM _{2.5} CO ₂ e	0.01 <0.01 <0.01 <0.01 5.30	0.02 0.02 <0.01 <0.01 23.21	0.01 <0.01 <0.01 <0.01 5.30	0.02 0.02 <0.01 <0.01 23.21	Gas/Vapor	O ^p
EP-FUG	Fugitive	EU-FUG	Fugitive Components	NA	NA	NA	NA	VOC HAP CO ₂ e	0.91 0.02 47	3.98 0.07 207	0.91 0.02 47	3.98 0.07 207	Gas/Vapor	O ^p
APC-COMB-TKLD	Upward vertical stack	APC-COMB-TKLD	Vapor Combustor	NA	NA	NA	NA	NO _x CO SO ₂ PM/PM ₁₀ /PM _{2.5} CO ₂ e	1.66 1.39 0.01 0.13 1757	7.26 6.10 0.04 0.55 7695	1.66 1.39 0.01 0.13 1757	7.26 6.10 0.04 0.55 7695	Gas/Vapor	O ^p

A – Emissions calculated using permit limits, AP-42, and 40 CFR Part 98 Subpart C.

B - Emissions calculated using AP-42 and 40 CFR Part 98 Subpart C.

C – Emissions Calculated using Promax

D – Emission calculated using AP-42

The EMISSION POINTS DATA 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 EMISSION POINTS DATA 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.

- 1 Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- 2 Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- 3 List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.
- 4 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).
- 5 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).
- 6 Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- 7 Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 2: Release Parameter Data

Emission Point ID No. (<i>Must match Emission Units Table</i>)	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) at operating conditions	Velocity (fps)	Ground Level (Height above mean sea level)	Stack Height ² (Release height of emissions above ground level)	Northing	Easting
EP-MC4219	~0.7	~1,101	~678	~29.4	~1,250	~12	4,433.73136	536.04931
EP-MC4220	~0.7	~1,101	~678	~29.4	~1,250	~12	4,433.73136	536.04931
EP-GPU1 - EP-GPU4 (each)	~1.0	~500	~992.4	~21.1	~1,250	~10.75	4,433.73136	536.04931
EP-HTR1 - EP-HTR2 (each)	~0.7	~450	~13,067	~277.3	~1,250	~10	4,433.73136	536.04931
EP-LH1 - EP-LH4 (each)	~1.0	~500	Unknown	Unknown	~1,250	~10	4,433.73136	536.04931
EP-TANKS-COND	NA	Ambient	NA	NA	~1,250	~20	4,433.73136	536.04931
EP-TANKS-PW	NA	Ambient	NA	NA	~1,250	~20	4,433.73136	536.04931
EP-LOAD-COND	NA	Ambient	NA	NA	~1,250	~3	4,433.73136	536.04931
EP-LOAD-PW	NA	Ambient	NA	NA	~1,250	~3	4,433.73136	536.04931
EP-PILOT	NA	NA	NA	NA	~1,250	~25	4,433.73136	536.04931
EP-FUG	NA	Ambient	NA	NA	~1,250	NA	4,433.73136	536.04931
APC-COMB-TKLD	NA	~5.5	NA	NA	~1,250	~30	4,433.73136	536.04931

¹ Give at operating conditions. Include inerts.
² Release height of emissions above ground level.

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
EP-MC4219	Upward vertical stack	EP-MC4219	Caterpillar G3306 NA Engine	--	NSCR	NA	NA	NOx CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO _{2e}	4.31 18.90 4.31 18.90 <0.01 <0.01 0.02 0.11 0.16 0.67 164 717	18.90 18.90 <0.01 0.11 0.67 717	0.32 1.40 0.64 2.80 <0.01 <0.01 0.02 0.11 0.16 0.67 164 717	1.40 2.80 <0.01 0.11 0.67 717	Gas/Vapor	O ^A	NA
EP-MC4220	Upward vertical stack	EP-MC4220	Caterpillar G3306 NA Engine	--	NSCR	NA	NA	NOx CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO _{2e}	4.31 18.90 4.31 18.90 <0.01 <0.01 0.02 0.11 0.16 0.67 164 717	18.90 18.90 <0.01 0.11 0.67 717	0.32 1.40 0.64 2.80 <0.01 <0.01 0.02 0.11 0.16 0.67 164 717	1.40 2.80 <0.01 0.11 0.67 717	Gas/Vapor	O ^A	NA
EP-GPU1 - EP-GPU6 (total)	Upward vertical stack	EP-GPU1 - EP-GPU6	GPU Burners	NA	None	NA	NA	NOx CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO _{2e}	0.66 2.90 0.56 2.44 <0.01 <0.01 0.05 0.22 0.04 0.16 703 3,078	2.90 2.44 0.02 0.02 0.05 0.22 0.04 0.16 703 3,078	0.66 2.90 0.56 2.44 <0.01 <0.01 0.05 0.22 0.04 0.16 703 3,078	2.90 2.44 0.02 0.02 0.05 0.22 0.04 0.16 703 3,078	Gas/Vapor	O ^B	NA
EP-HTR1 - EP-HTR2 (total)	Upward vertical stack	EU-HTR1 - EU-HTR2	Heater Treaters	NA	None	NA	NA	NOx CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO _{2e}	0.11 0.48 0.09 0.41 <0.01 <0.01 <0.01 0.04 <0.01 0.03 117 513	0.48 0.41 <0.01 <0.01 0.04 <0.01 0.03 117 513	0.11 0.48 0.09 0.41 <0.01 <0.01 <0.01 0.04 <0.01 0.03 117 513	0.48 0.41 <0.01 <0.01 0.04 <0.01 0.03 117 513	Gas/Vapor	O ^B	NA
EP-LH1 - EP-LH4 (total)	Upward vertical stack	EU-LH1 - EU-LH4	Line Heaters	NA	None	NA	NA	NOx CO SO ₂ PM/PM ₁₀ /PM _{2.5} VOC CO _{2e}	0.50 2.18 0.42 1.83 <0.01 0.01 0.04 0.17 0.03 0.12 527 2,308	2.18 1.83 0.01 0.01 0.04 0.17 0.12 527 2,308	0.50 2.18 0.42 1.83 <0.01 0.01 0.04 0.17 0.03 0.12 527 2,308	2.18 1.83 0.01 0.01 0.04 0.17 0.12 527 2,308	Gas/Vapor	O ^B	NA
EP-TANKS-COND	Tank vent(s)	EU-TANKS-COND	Six (6) Condensate Tanks	--	VRU APC-COMB-TKLD	NA	NA	VOC HAP	37.30 163.35 0.77 3.36	163.35 3.36	1.86 0.04	8.17 0.17	Gas/Vapor	O ^C	NA
EP-TANKS-PW	Tank vent(s)	EU-TANKS-PW	Six (6) Produced Water Tanks	--	VRU APC-COMB-TKLD	NA	NA	VOC HAP	3.95 0.02	17.30 0.08	0.20 <0.01	0.86 <0.01	Gas/Vapor	O ^C	NA

EP-LOAD-COND	Fugitive	EU-LOAD-COND	Condensate Tank Loading	---	VRU APC-COMB-TKLLD	NA	NA	VOC HAP	N/A N/A	64.25 1.25	N/A N/A	19.28 0.38	Gas/Vapor	O ^C
EP-LOAD-PW	Fugitive	EU-LOAD-PW	Produced Water Tank Loading	---	VRU APC-COMB-TKLLD	NA	NA	VOC HAP	N/A N/A	9.94 0.02	N/A N/A	2.98 0.01	Gas/Vapor	O ^C
EP-PILOT	Upward vertical stack	EU-PILOT	Vapor Combustor Pilot	NA	NA	NA	NA	NOx CO SO ₂ PM/PM ₁₀ /PM _{2.5}	0.01 <0.01 <0.01 <0.01	0.02 0.02 <0.01 <0.01	0.01 <0.01 <0.01 <0.01	0.02 0.02 <0.01 <0.01	Gas/Vapor	O ^P
EP-FUG	Fugitive	EU-FUG	Fugitive Components	NA	NA	NA	NA	VOC HAP CO ₂ e	0.91 0.02 47	3.98 0.07 207	0.91 0.02 47	3.98 0.07 207	Gas/Vapor	O ^P
APC-COMB-TKLLD	Upward vertical stack	APC-COMB-TKLLD	Vapor Combustor	NA	NA	NA	NA	NOx CO SO ₂ PM/PM ₁₀ /PM _{2.5} CO ₂ e	1.66 1.39 0.04 0.13 1757	7.26 6.10 0.04 0.55 7695	1.66 1.39 0.01 0.13 1757	7.26 6.10 0.04 0.55 7695	Gas/Vapor	O ^P

A – Emissions calculated using permit limits, AP-42, and 40 CFR Part 98 Subpart C.

B - Emissions calculated using AP-42 and 40 CFR Part 98 Subpart C.

C – Emissions Calculated using Promax

D – Emission calculated using AP-42

The EMISSION POINTS DATA 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 EMISSION POINTS DATA 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.

- 1 Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- 2 Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (i.e., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- 3 List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.
- 4 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).
- 5 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).
- 6 Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- 7 Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data

Emission Point ID No. (Must match Emission Units Table)	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)			UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) at operating conditions	Velocity (fps)	Ground Level (Height above mean sea level)	Stack Height ² (Release height of emissions above ground level)	Northing	Easting	
EP-MC4219	~0.7	~1,101	~678	~29.4	~1,250	~12	4,433.73136	536.04931	
EP-MC4220	~0.7	~1,101	~678	~29.4	~1,250	~12	4,433.73136	536.04931	
EP-GPU1 – EP-GPU4 (each)	~1.0	~500	~992.4	~21.1	~1,250	~10.75	4,433.73136	536.04931	
EP-HTR1 – EP-HTR2 (each)	~0.7	~450	~13,067	~277.3	~1,250	~10	4,433.73136	536.04931	
EP-LH1 – EP-LH4 (each)	~1.0	~500	Unknown	Unknown	~1,250	~10	4,433.73136	536.04931	
EP-TANKS-COND	NA	Ambient	NA	NA	~1,250	~20	4,433.73136	536.04931	
EP-TANKS-PW	NA	Ambient	NA	NA	~1,250	~20	4,433.73136	536.04931	
EP-LOAD-COND	NA	Ambient	NA	NA	~1,250	~3	4,433.73136	536.04931	
EP-LOAD-PW	NA	Ambient	NA	NA	~1,250	~3	4,433.73136	536.04931	
EP-PILOT	NA	NA	NA	NA	~1,250	~25	4,433.73136	536.04931	
EP-FUG	NA	Ambient	NA	NA	~1,250	NA	4,433.73136	536.04931	
APC-COMB-TKLD	NA	~5.5	NA	NA	~1,250	~30	4,433.73136	536.04931	

¹ Give at operating conditions. Include inerts.

² Release height of emissions above ground level.



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone (304) 926-0475 • FAX: (304) 926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 27, 2015

Ms. Kristi Evans, HSE Coordinator
SWN Production Company, LLC
10000 Energy Drive
Spring, TX 77389

RE: **Application Complete**
SWN Production Company, LLC
Charles Frye Pad
Permit No. R13-2922F
Plant ID No. 069-00109

Dear Ms. Evans:

Your application for a modification permit was received by the Division of Air Quality (DAQ) on April 27, 2015 and assigned to the writer for review. Upon an initial review of the information submitted, the application has been deemed complete as of the date of this letter. The ninety (90) day statutory time frame began on that day.

This determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit determination.

Should you have any questions, please contact me at (304) 926-0499 ext. 1219.

Sincerely,

Entire Document
NON-CONFIDENTIAL

Joe Kessler, PE
Engineer

Kessler, Joseph R

From: Adkins, Sandra K
Sent: Friday, May 01, 2015 10:35 AM
To: Kessler, Joseph R
Subject: SWN Production Co (Charles Frye Pad)/Permit Application Fee

This is the receipt for payment received from:

Southwestern Energy, check number 0000989798, dated April 21, 2015, \$2,000.00
SWN Production Co Charles Frye Pad R13-2922F id no 069-00109

OASIS Deposit No CR 1500121343 May 1, 2015

UC Defaulted Accounts Search Results

Sorry, no records matching your criteria were found.

FEIN:

Business name: SWN PRODUCTION COMPANY, LLC

Doing business

as/Trading as:

Please use your browsers back button to try again.

Workforce WV	Unemployment Compensation	Offices of the Insurance Commissioner
------------------------------	---	---

UC Defaulted Accounts Search Results

Sorry, no records matching your criteria were found.

FEIN: 264388727

Business name:

Doing business

as/Trading as:

Please use your browsers back button to try again.

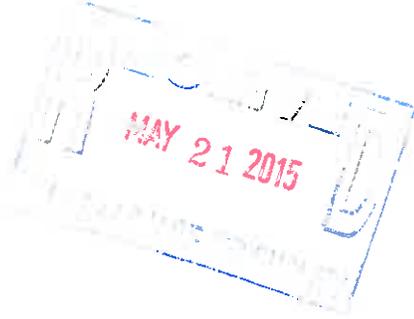
WorkforceWV	Unemployment Compensation	Offices of the Insurance Commissioner
-----------------------------	---	---



May 20, 2015

Via FEDEX

Mr. Fred Durham, Director
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, Wv 25304



Re: Southwestern Production Company, LLC
Charles Frye Pad
R13 Modification Application
Affidavit of Publication

Dear Mr. Durham:

Southwestern Production Company, LLC; a subsidiary of Southwestern Energy Corporation, is submitting the enclosed Affidavit of Publication for the R13 Modification Application submitted to the Division of Air Quality for the above referenced facility. A public notice for the proposed project was published in the Monday, April 27, 2015 edition of *The Intelligencer*.

Should you have any question or require further information, please feel free to contact me at 304-884-1652 or by email at kristi_evans@swn.com.

Sincerely,

Kristi Evans
HS&E Coordinator – *Air Quality Specialist*

Enclosure – Original Affidavit of Publication

Entire Document
NON-CONFIDENTIAL

I.D. No. 069-00109 Reg. 2922F
Company SWN
Facility CHARLES FRYE Region _____
Initials JE



AIR QUALITY PERMIT NOTICE

Notice of Application
Southwestern Production Company, LLC. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for an R13 permit modification for an existing natural gas wellpad (Charles Frye Wellpad) located on County Road 41/1 (at 40.053054, -80.577353), near Wheeling, West Virginia in Ohio County, WV.

The applicant estimates the potential increase to discharge the following Regulated Air Pollutants as a result of the change will be:

Particulate Matter (PM) = 11.84 tpy

Sulfur Dioxide (SO2) = 0.05 tpy

Volatile Organic Compounds (VOC) = 2.33 tpy

Carbon Monoxide (CO) = 0 tpy

Nitrogen Oxides (NOx) = 0.96 tpy

Hazardous Air Pollutants (HAPs) = 0 tpy

Greenhouse Gases (CO2e) = 3,824 tpy

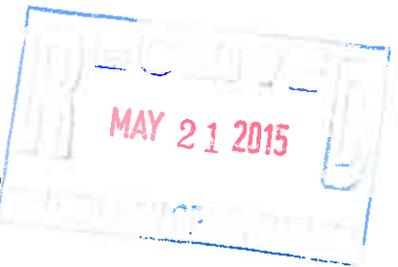
Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

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

Dated this 27 day of April, 2015.

By: SWN Production Company, LLC
Paul Geiger - Sr. Vice President Ops Management
10000 Energy Drive
Spring TX 77389
Int. April 27, 2015

STATE OF WEST VIRGINIA,
COUNTY OF OHIO.



I, Sara France for the publisher of the Intelligencer newspaper published in the CITY OF WHEELING, STATE OF WEST VIRGINIA, hereby certify that the annexed publication was inserted in said newspaper on the following dates:

April 27, 2015

Given under my hand this 6th day of May, 2015

Sworn to and subscribed before me this 6th day of May, 2015 at WHEELING, OHIO COUNTY, WEST VIRGINIA

Kathleen D Fugate
Notary Public

of, in and for OHIO COUNTY, WEST VIRGINIA.

My Commission expires Mar 22, 2024



Kessler, Joseph R

From: Rice, Jennifer L
Sent: Friday, May 01, 2015 9:32 AM
To: paul_geiger@swn.com; Kristi_evans@swn.com
Cc: Kessler, Joseph R; McKeone, Beverly D
Subject: WV DAQ Permit Application Status for SWN Production Co.; Charles Frye Pad

**RE: Application Status
SWN Production Company
Charles Frye Pad
Plant ID No. 069-00109
Application No. R13-2922F**

Mr. Geiger,

Entire Document
NON-CONFIDENTIAL

Your application for a modification permit for the Charles Frye Pad was received by this Division on April 27, 2015, and was assigned to Joe Kessler. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Joe Kessler stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Joe Kessler, at 304-926-0499, extension 1219.

Jennifer Rice
WV Dept. of Environmental Protection
Division of Air Quality