COMMONWEALTH OF PENNSYLVANIA

Department of Environmental Protection

**December 12, 2017**

**484-250-5920**

**SUBJECT:** Plan Approval Review Memo

SPMT (Sunoco Partners Marketing & Terminals, L.P.)

 Marcus Hook Borough, Delaware County

 Application No. 23-0119H

 APS: 945576, Auth: 1190310

**To**: James D. Rebarchak

 Regional Manager

 Air Quality

**From**: George A Eckert

 Permit Reviewer

 Air Quality

**Through**: Janine Tulloch-Reid, PE

 Chief, Facilities Permitting Section

 Air Quality

 Sunoco Partners Marketing & Terminals, L.P. (SPMT), located at: 100 Green Street, Marcus Hook, PA 19061 (Marcus Hook Borough, Delaware County) has submitted a plan approval application to:

* install and operate a new flare (Warm West Flare);
* install approximately 200 feet of a 30” diameter new flare header and associated piping components (12 valves);
* permanently disconnect the current “Ethylene Complex” (EC) flare that is located in the state of Delaware after the new flare is placed into operation; and
* permanently disconnect approximately 5,000 feet of piping and components (5 pumps, 2 relief valves, and 123 valves) associated with the EC flare.

 This project will take place at an existing Title V facility and no additional sources or control devices will be installed or modified as part of this project.

 SPMT – SIC 4226 (Special Warehousing – petroleum and chemical bulk stations) is a bulk chemical storage and fractionation facility. The facility is currently operating under the following plan approvals (numbers 23-0119, 23-0119D, 23-0119E, and 23-0119G) and a Title V Permit (number 23-00119). SPMT in Marcus Hook is a major PSD and NSR facility.

#### Administrative/Notifications

 Application Received: July 7, 2017

 GIF: Submitted with application

 Compliance Review Form: Submitted with the application.

 Site Location: 100 Green Street, Marcus Hook, PA 19061

 Coordination involvement: None Required

 Plan Approval Fee: $7000.00

 Municipal notification: Township and county notifications (and proof of receipt) received with the application.

 Administratively Complete: July 24, 2017

 Revision to Application November 2, 2017

 This application was originally submitted using emission reductions from planned future shutdown of the Ethylene Complex (EC) Flare located in the state of Delaware. Following discussions with the Delaware Department of Natural resources and Environmental Quality concerning these emission reductions, SPMT has submitted a revised application that does not include any reductions from the EC flare.

**Coordination**

 This project is not in coordination with any other Department programs.

**Process Description**

 The flare system will include flare connections from both SPMT and Braskem Sources.

 This flare is being designated as the “West Warm Flare” to differentiate it from the cold flares that are currently permitted under plan approval number 23-0119D. The cold flares are dedicated to providing safe control of air emissions from the cryogenic sources only, while the West Warm flare will receive flow from the process units at the facility (and from Braskem) that are not cryogenically controlled.

 This project involves the construction of an elevated, steam assisted, flare (approximately 200’ high and 3’ in diameter). This unit will be manufactured by the John Zink Co, LLC, Model EEF-HSA1-30 (or equivalent). The flare is being designed to handle approximately 290,000 scfm and will be equipped with three (3) pilots. Each pilot will have two thermocouple elements and one (1) flame ionization monitor.

 Gases to the flare will include:

1. Pilot gas;
2. Purge gas;
3. Sweep gas;
4. Operation/maintenance flows; and
5. Emergency situations.

 Pilot gas (natural gas) and purge gas (natural gas) will both be introduced into the flare stack to ensure the presence of a flame and for the purposes of safe and reliable flaring operations.

 Sweep gas (natural gas or nitrogen) is a continuous flow that will be introduced into the flare header system at various locations upstream of the flare to prevent explosive conditions within the piping as well as ensuring gas flow toward the flare.

 Operation and maintenance flow. Gases from these situations are routine/intermittent and are part of the normal operation/maintenance of the individual sources. Operational flows are assumed to occur on a regular basis, but are not guaranteed to occur that way. Maintenance flows are predictable at varying intervals depending on maintenance and operation schedule and the condition of the equipment. Once the Warn West Flare and new header system is in place and operational, the same process units that are controlled by the EC Flare will then have their respective flows directed to the West Warm flare.

 Emergency gas flow. The primary purpose of the West Warm Flare is to provide safe and reliable control and destruction of process gases during emergency operations. While these are not “normal” operation, they are needed to be considered in the design of the project. The emergency release of emissions from these process units are not part of normal operation, cannot be easily predicted, and are not included in the source’s PTE.

 Air emissions from the West Warm Flare include: CO, NOx, SO2, VOC and Greenhouse Gases (GHG) in the form of CO2 and CO2e. These emissions can be quantified from the numerous components and have been accounted for using their chemical composition, frequency and duration of venting to the flare header, as well as the type of operation (sweep, operation, maintenance, or emergency).

 The installation of this West Warm Flare is not related to the construction and operation of any previous project in that it is merely re-routing the flow of air emissions from a previously permitted flare located in the state of Delaware to this West Warm Flare in Pennsylvania. There will be no increase of emissions from any existing sources that vent to the West Warm Flare header, nor will any existing sources be affected, except for the removal of the old flare, addition of the new flare, and changes in the the flare header.

 **Fugitive Emissions**

 This project includes the installation of about 400 feet of new piping and valves. The number of new components to be installed has been conservatively estimated based on preliminary engineering designs and does not include any currently permitted components.

 These new fugitive piping components will be subject to 40 CFR 60, Subpart VVa (Equipment leaks of VOCs in the SOCMI Industry, construction commencing after November 7, 2006). Potential leak estimates are based on the methodologies presented in US EPA’s Protocol for Equipment Leak Estimates (453/R-95-017). As these sources are new, there is no actual LDAR data available. However, the Texas Commission on Environmental Quality (TCEQ) has an approved LDAR program (28VHP) which indicates expected control efficiencies and the resulting emissions when used in conjunction with the US EPA methodologies of VVa.

 The number of fugitive components to be installed, and their associated emissions, are shown in Table 1, below.

Table 1

Emission from LDAR Piping Components

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No. of Components | Emission Factor (kg/hr/source)1 | Control Efficiency (%)2 | VOC Emissions (TPY) |
| Gas/Vapor valves installed | 12 | 0.00597 | 97 | 0.02 |
|  |
| Total LDAR PTE (Net) |  |  |  | 0.02 |

1 Emission factors derived from available data from EPA 453/R-95-017, Table 2-1.

2 Control efficiency is based on current LDAR readings at the facility and expected control efficiencies when following an approved LDAR program.

 **Best Available Technology (BAT)**

 BAT applies to new or modified sources. The West Warm Flare and flare header components are considered as new sources and are subject to BAT.

 **New Source Review (NSR)**

 This project is being defined as the installation of a new flare (West Warm Flare) and associated flare header components.

 Each plan approval application at a major facility is required, in accordance with 25 Pa. Code §§ 127.203a and 127.203(b)(1), is required to perform a significant emission increase and a significant net emission increase analysis for NSR pollutants. As the West Warm Flare is considered to be a new unit, the formula is the PTE of the new unit minus any baseline emissions.

 In accordance with 25 Pa. Code § 127.201(f), this facility is subject to the requirements for facilities located in severe nonattainment areas for ozone. This region of Pennsylvania is in nonattainment for NOx, VOC, and PM2.5.

 The significance threshold for VOC and NOx emissions is 25 tons each and for PM2.5 the significance threshold is 10 tons.

**Baseline Actual Emissions (BAE)**

 As this will be a new source, there are no baseline emissions, therefore the BAE equals zero.

**5-Calendar Year Applicability Determination – 25 Pa. Code §§ 127.203a and 203(b)(1).** This regulation instructs how to calculate the baseline actual emissions (BAE) and future Potential Emissions (PTE) from each new source at an existing major facility.

 This step only looks at the increases due to each source in the project along with any contemporaneous changes. This cannot be less than zero. If the increase coupled with the contemporaneous changes are zero or negative, then zero is entered.

 In this step, each new or modified source in the project is looked at to see if the PTE minus the BAE exceeds the significance threshold of 25 and 10 tons of NOx/VOC and PM2.5, respectively, per year.

 In conjunction with 25 Pa. Code § 127.203a, the requirements found in 25 Pa. Code §§ 127.203(b) and (b)(1) are applicable for major sources located in this county for determining if the aggregated emissions exceed 25 TPY for NOx or VOC. These are as follows:

1. Increases and decreases in emissions from the project are aggregated with other increases in net emissions occurring over a consecutive five (5) calendar year period, including the year in which the project was constructed; or
2. Increases and decreases in emissions from the project are aggregated with other increases and decreases which occurred within the ten (10) year period prior to the date of a complete application submittal. In this case, the facility is subject only to the emissions offset requirements found in 25 Pa. Code 127.205(3).

**PTE for West Warm Flare**

 Pilot and purge gases flow, as stated earlier, will be 100% natural gas and continual flow for 8,760 hours per year, which consist mostly of methane and ethane - both of which are not classified as a VOC. VOC emissions from the pilot and purge gases are calculated using the VOC content based on composition data and assuming a destruction efficiency of 98%. This value was used in lieu of the AP-42 factor for flares, because it more accurately represents operation at this facility. No appreciable particulate matter emissions from the flare are expected from the burning of natural gas.

 Sweep gas flow, as stated earlier, will consist of natural gas and nitrogen and is also based on 8,760 hours per year. VOC emissions were calculated in a similar fashion as for the pilot/purge flows. The nitrogen used in the sweep gas has no heating value and does not contribute to the emissions.

 Operational/Maintenance gas flow. An analysis was conducted to determine the flow, composition, frequency, and origin of the expected flows to the flare. The operation/maintenance flow will contain butane, propane, propylene, gasoline, pentane, and natural gas. This flow also varies with anticipated maintenance and regulatory requirements (for example - the 10-year cycle for emptying and inspecting storage vessels under NSPS, Subpart Kb). These longer than annual cycles have been annualized, with the resulting calculations being only an average. VOC emissions were calculated in a similar fashion as for the pilot/purge and sweep gas flows.

Table 2

PTE for Warm West Flare and header

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Pollutant | Pilot/Purge parameters | Pilot/Purge emissions (TPY) | Sweep parameters | Sweep emissions (TPY) | Oper/Maint emissions (TPY) | Flare Header Emissions (TPY) | Total West Warm Flare Emissions (TPY)1 |
| Flow rate | 850 scfh |  |  |  |  |  |  |
| Heating value | 1026 Btu/scf |  |  |  |  |  |  |
| Heating Duty3 | 0.87 MMBtu/hr |  | 8.60 MMBtu/hr |  | 14.57 MMBtu/hr |  |  |
|  |  |  |  |  |  |  |  |
| NOx |  | 0.26 |  | 2.56 | 4.34 |  | 7.16 |
| CO |  | 1.18 |  | 11.68 | 19.78 |  | 32.64 |
| VOC |  | 0.03 |  | 0.33 | 57.86 | 0.02 | 58.25 |
| SO2 |  | 0.002 |  | 0.02 | 0.002 |  | 0.03 |
| CO2 |  | 423 |  | 4,457 | 8,646 |  | 13,526 |
| CH4 |  | 3.15 |  | 33.2 | 6.96 |  | 43.32 |
| N2O |  | 0.001 |  | 0.008 | 0.01 |  | 0.02 |
| CO2e2 |  | 502 |  | 5,289 | 8,825 |  | 14,616 |

1 Due to rounding in the calculations, the sum of the individual values may not equal the total.

2 For consistency, the CO2 emissions have been converted to short tons.

3 Heating duty accounts for the various (if any) flow constituents and their respective Btu values.

 In conjunction with 25 Pa. Code § 127.203a, the requirements found in 25 Pa. Code §§ 127.203(b)(1)(i) and (b)(1)(ii) are applicable for major sources located in this county for determining if the aggregated emissions exceed 25 TPY for VOC and/or NOx.

 In accordance, with 127.203(b)(1)(i), the emission increases and decreases with this project are aggregated with other increases during the 5-calendar year look back period. The facility most recently netted out for VOC and NOx in April 2016 (See plan approval 23-0119E). This reduces the 5-calendar year look-back period for VOC and NOx emissions to April 2016. Table 3, below, summarizes the emission increases during the 5-calendar year look-back period.

Table 3

5 Calendar Year Look Back Period (TPY)

25 Pa. code § 127.0203(b)(1)(i)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Project | Date | VOC | NOx |
| RFD 5597 | 15-2B Cooling tower expansion | Apr 11, 2016 | 0.00 | 0.0 |
| 23-0119F | Tanks Update (not linked to 23-0119B) | Aug 15, 2016 | 5.65 | 0.0 |
| RFD 5865 | Diesel Pumps and Tanks | Aug 29, 2016 | 0.01 | 1.56 |
| RFD 5918 | Propane Railcar Offloading | Sep 23, 2016 | 2.19 | 0.0004 |
| RFD 5944 | Portable Flare | Sep 26, 2016  | 0.002 | 0.0002 |
| 23-0119G | 237/358 Crude Tanks Increase | Sep 28, 2016 | 13.63 | 0.0 |
| De Minimis | Mobile Thermal Oxidizer | Oct 3, 2016 | 1.0 | 0.0 |
| De Minimis | Crude Pump | Nov 14, 2016 | 0.8 | 0.0 |
| RFD 6484 | Methanol Removal Project | Aug 17, 2017 | 0.65 | 0.0 |
| 23-0119H | West Warm Flare Project | Nov 2, 2017 | 58.25 | 7.16 |
|  |  |  |  |  |
| Total |  |  | 82.18 | 8.72 |
| Threshold |  |  | 25 | 25 |
| Trigger NSR (Y/N) |  |  | Y | N |

\* Note that the facility most recently netted out of NSR for NOx and VOC in Plan Approval number 23-0119E, therefore the lookback period has been shortened from five (5) calendar years to the date of that application.

 As Seen in Table 3, above, the 5-calendar year look-back increase of NOx emissions is less than the significant emission threshold of 25 tons, while the 5-calendar year look-back increase of VOC emissions are greater than the 25-ton threshold. Therefore, this project will trigger NSR for VOC emissions and is subject to the special permit requirements of 25 Pa. Code § 127.203 for VOC. SPMT is required to submit a LAER analysis for VOCs.

 Since NOx emissions did not trigger NSR during the 5-calendar year look-back, an analysis following 25 Pa. Code § 127.203(b)(1)(ii) must be performed for this pollutant (Table 4, below).

 **10-Year Applicability Determination (25 Pa. Code 127.203(b)(1)(ii))**.

Table 4

Facility Emissions occurring within ten (10) years of a complete application

|  |  |  |  |
| --- | --- | --- | --- |
|  | Project Name | Date | NOx (TPY) |
| 23-0001AA | 12-3 Cooling Tower | Oct 28, 2009 | 0 |
| 23-0001AD | CO Controls (Source 113) | May 17, 2012 | 0 |
| ERC Application | Shutdown of Delaware Sources | Nov 5, 2012 | (29.29) |
| 23-0119 | Cryogenic Ethane/Propane Tanks | Feb 5, 2013 | 0.0 |
| 23-0119A | Deethanizer | Sep 5, 2013 | 0.0 |
| 23-0119B | Natural Gasoline | Jan 30, 2014 | 0.0 |
| 23-0119C | Cooling Tower | Nov 19, 2014 | 0.0 |
| 23-0119D | Cryogenic ethane, propane, butane tanks | Feb 26, 2015 | 0.0 |
| RFD 5236 | New Spheres | Aug 13, 2015 | 0.0 |
| RFD 5340 | Tank 609 VP Update | Oct 1, 2015 | 0.0 |
| De Minimus | 607/611 Tanks Bridge | Jan 13, 2016 | 0.0 |
| 23-0119E | Depropanizer / Debutanizer | Apr 1, 2016 | 0.0 |
| RFD 5597 | 15-2B Cooling Tower Expansion | Apr 11, 2016 | 0.0 |
| 23-0119F | Tanks Update (not linked to 23-0119B) | Aug 16, 2016 | 0.0 |
| RFD 5865 | Diesel Pumps and Tanks | Aug 19, 2016 | 1.56 |
| 23-0119G | 237/358 Crude Tanks Increase | Sept 28, 2016 | 0.0 |
| RFD 5918 | Propane Railcar Offloading | Sep 26, 2016 | 0.0004 |
| RFD 5944 | Portable Flare | Sep 26, 2016 | 0.0002 |
| De Minimus | Mobile thermal oxidizer | Oct 3, 2016 | 0.0 |
| De Minimus | Crude Pump | Nov 14, 2016 | 0.0 |
| RFD 6484 | Methanol Removal Project | Aug 17, 2017 | 0.00 |
| 23-0119H | West Warm Flare Project | Nov 2, 2017 | 7.16 |
|  |  |  |  |
|  | TOTAL |  | (20.57) |
|  | NSR Threshold |  | 25 |
|  | Trigger (Y/N) |  | N |

 As the net emission increases and the significant net emission increases, as shown in Tables 3 and 4 above, are less than 25 TPY for NOx emissions, the proposed project is not subject to the special permit requirements of 25 Pa. Code § 127.203 for that pollutant.

**NSR for PM2.5 and its precursors (SO2 and NOx).** As Delaware County is designated as non-attainment for PM2.5, an analysis must be performed for it and its precursors. With PM2.5, there is no look-back periods and the analysis only looks at the project as seen in Table 5, below.

Table 5

NSR for PM2.5 (and precursors)

|  |  |  |  |
| --- | --- | --- | --- |
| Project | PM2.5 (TPY) | SO2 (TPY | NOx (TPY) |
| West Warm Flare | 0.0 | 0.03 | 7.16 |
| NSR Significance level | 10 | 40 | 40 |
| Trigger (Y/N) | N | N | N |

 As the project emission increases, as shown in Table 5 above, are less than the significance thresholds for PM2.5 and its precursors (SO2 and NOx) the proposed project is not subject to the special permit requirements of 25 Pa. Code § 127.203 for those pollutants.

**LAER for VOC emissions**

 In accordance with 25 Pa. Code § 127.205, SPMT shall meet the following:

1. implement LAER for VOC control;
2. Certify that all other SPMT facilities in Pennsylvania that are subject to NSR and that have emission limitations are in compliance or are on a schedule of compliance;
3. Obtain the necessary emission offsets;
4. Perform an alternate site analysis.
5. A LAER evaluation was conducted in accordance with the US EPA’s guidance documents, a search of the RBLC, and applicable state and federal regulations. The West Warm Flare is the only affected source and is itself a control device therefore no alternative control technology was considered. A search of the RBLC found two flares requiring a destruction and removal efficiency (DRE) greater than 98%, and this was only for hydrocarbons C3 and lighter, while heavier hydrocarbons had a DRE of 98%. During a phone call with Ms. Anne Inman of the Texas TEQ, it was learned that the 99% reduction was only during times when the facility could guarantee that hydrocarbons with 3 carbons or less were being sent to the flare (this happens only during startup or shutdown periods). The remainder of the time, these two flares were destroying hydrocarbons at a rate of 98%.

 Two RBLC entries had fuel gas recovery, but this is only feasible when the infrastructure is present, which is not the case at this facility.

 Based on the RBLC search and technical feasibility, SPMT is proposing that compliance with the design and operating requirements of 40 CFR § 60.18 satisfy LAER for the West Warm Flare, including maximum velocity, visible emissions, and a minimum heating value. The Department concurs with this finding.

1. To the best of SPMT’s knowledge, all existing sources in Pennsylvania owned or controlled by SPMT are operating in compliance with applicable local, state, and federal regulations.
2. Offsets. 25 Pa. Code § 127.210(a) requires the use of an offset ration of 1.3:1 as the Marcus Hook location is required to be treated as a severe nonattainment area for ozone. As seen in Table 3, above, a VOC emission increase of 82.18 will result from this project multiplied by 1.3 equals 106.83 tons of VOC ERCs. Currently SMPT hold sufficient VOC ERCs to satisfy this requirement; however, additional VOC offsets may be obtained to satisfy this requirement.
3. Alternate Site Analysis.

 The permittee submitted an alternate site analysis that addressed the following: other locations, ozone attainment, production processes, air toxics, other environmental control land impacts, and social impacts. The flare is a necessary piece of equipment for this industrial site by allowing safe operation of the many sources, as well as controlling flows during emergency situations.

 Additionally, this flare would serve no purpose at an alternative site as it is designed to replace a current operating flare (that is near the end of its useful life) to safely control process flows at the MHIC site and the infrastructure is already in place.

 **Prevention of Significant Deterioration (PSD) – 40 CFR § 52.21**

 This project is defined as the installation of a new flare and associated piping components.

 SPMT is a major PSD facility. According to the regulations governing PSD, if a facility is major for any of the PSD pollutants, then an applicability analysis must be performed for all PSD pollutants, including GHGs and ozone.

**STEP 1 – Significant Emission Increase**

 This compares the emissions after the change to the emission prior to the change. If this value is greater than the significance threshold per PSD pollutant, it is classified as a significant emission increase (Step 1). This number can never be less than zero. If the result is zero or less, then zero should be entered. The calculations for the PSD pollutants are demonstrated in Table 6, below.

Table 6

PSD Emission for the project

Emission units in TPY

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project | NO2 | SO2 | CO | PM | PM10 | H2SO4 | Lead | CO2e\* |
| West Warm Flare (PTE) | 7.16 | 0.03 | 32.64 | 0 | 0 | 0 | 0 | 14,616 |
| PSD Significance Threshold | 40 | 40 | 100 | 25 | 15 | 7 | 0.6 | 75,000 |
| Triggers PSD (Y/N) | N | N | N | N | N | N | N | N |

\* For consistency between pollutants, CO2e emissions have been converted to short tons.

 For each PSD pollutant, Table 6 shows that the project emissions are less than the respective significant emission threshold.

 It is noted here that the US EPA has stated, “Practically speaking, if the project itself is not significant there is no need to conduct a netting analysis (Step 2)”.

**Best Available Technology (BAT) Determination**

 BAT is a pollutant specific determination and each plan approval application is required to demonstrate that the emissions from the new source will be the minimum attainable through the use of a BAT analysis. In accordance with the Department’s definition of BAT, SPMT has conducted such an analysis and researched the following databases: EPA’s NSR website, RBLC database, technical books and articles, vendor information, and various state and federal regulations and documents.

 The installation of a replacement steam-assisted flare that meets the requirements of 40 CFR § 60.18 suffices for BAT for NOx, CO, and SO2. Additionally, the VOC LAER requirements meet BAT for VOC emissions.

**Federal Regulations**

 40 CFR 60, Subpart VV. Some of the individual sources at the SPMT facility are subject to this regulation for the control of air emissions from equipment leaks (These sources are permitted under Source 801 in the Title V permit.). This regulation specifies that if a flare is utilized, then the flare must comply with 40 CFR § 60.18. The new flare will comply with 60.18.

 40 CFR 60, Subpart VVa. Some of the individual sources at the SPMT facility are subject to this regulation for the control of air emissions from equipment leaks (These sources are permitted under Source 103 in the Title CV permit.). This regulation specifies that if a flare is utilized, then the flare must comply with 40 CFR § 60.18. The new flare will comply with 60.18.

 **40 CFR 60, Subpart OOOO (Standards for Crude Oil and Natural Gas Production, Transmission and Distribution).** This regulation is mainly for the regulation of oil and natural gas production, except that 40 CFR § 60.5365(f) applies to onshore natural gas processing plant (See definition in 40 CFR § 60.5430) sites unless they are subject to and are controlled according to 40 CFR 60, Subpart VVa. The flare in this project is not specifically subject to this regulation; however, the facility where this project is located is subject to VVa and therefore this project is exempt from this subpart.

 **CAM (40 CFR, Part 64).** CAM does not apply to this project as the flare is not classified as a pollution specific emission unit (as defined in 40 CFR, Part 64).

**Emission Reduction Credits (ERCs)**

 ERCs are required for this project as follows: VOC – 82.18 tons times a multiplier of 1.3 equals 106.83 tons. As noted above, the facility currently holds sufficient ERCs to cover this amount, but reserves the right to purchase additional quantities on the open market.

## Stack characteristics

 Approximate dimensions for this stack are: 200 feet tall, with a 3-foot diameter, and capable of handling a design volume of approximately 290,000 scfm.

## Testing

 Testing is required for this steam-assisted flare to ensure that the requirements of 40 CFR § 60.18 are being met.

# **Monitoring, recordkeeping, and implementation**

##  In accordance with the requirements of 40 CFR § 60.18, sufficient monitoring and recordkeeping is required to be retained for a minimum of five (5) years.

**Public Participation** – Public notices were sent/published as follows:

- Company was notified by email on December 12, 2017;

- EPA notified via email on December 18, 2017;

- Notice in the PA Bulletin on December 23, 2017; and

- Newspaper notice published in the Delaware County Daily Times on December 20, 21, and 22, 2017.

 Comments were received from the company, public, USEPA on xx yy, 2017 via email/letter and are addressed below. Or No comments were received from the USEPA, the permittee, or the public.

1. **COMMENT** –.

**RESPONSE –**

1. **COMMENT–**

**RESPONSE –**

1. **COMMENT–**

**RESPONSE –**

## Recommendation

 I recommend issuance of a plan approval for the installation of a new “West Warm Flare” and flare header as indicated above.