

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1611-AOP-R10 AFIN: 70-00400

1. PERMITTING AUTHORITY:

Division of Environmental Quality
 5301 Northshore Drive
 North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Enterprise Refined Products Company LLC (El Dorado Terminal)
 331 Old Calion Road
 El Dorado, Arkansas 71730

3. PERMIT WRITER:

Amanda Leamons

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Petroleum Bulk Stations and Terminals
 NAICS Code: 424710

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
9/29/2023	Renewal	Tank emissions revised based on gasoline with a higher RVP and updated AP-42 factors. Emissions also revised due to tank conversions. SN-1061 and SN-GEN1 were removed from permit.
10/23/2023	Minor Mod	SN-1021 & 1027 converted to DEFRs SN-1028 converted to IFR and SN-VCU1 was added to control emissions during summer months SN-GEN2, natural gas fired emergency engine was added, along with fed requirements

6. REVIEWER'S NOTES:

Enterprise Refined Products Company LLC (formerly TE Products Pipeline Company) operates a petroleum storage and transfer facility located at 331 Old Calion Road in El Dorado, Union County, Arkansas 71730. This permit action incorporates modification into the permit renewal. The following changes are included in this permit:

- Updated emissions from all tanks based storing gasoline with a maximum RVP of 15 and an allowable True Vapor Pressure (TVP) < 11.1 psia for gasoline storage tanks SN-1021 through SN-1033, SN-1063 and SN-1064. The emission calculations are being updated based on the most recent AP-42 Chapter 7 emissions calculation methodology for organic liquids storage tanks.
- Addition of geodesic domed roofs and agitators to the floating roof tanks SN-1021 and SN-1027. These tanks will now be referred to as Domed External Floating Roof (DEFR) Storage Tanks.
- Floating roof tanks SN-1023 and SN 1024 will be referred to as External Floating Roof (EFR) storage tanks as these tanks were never physically modified as proposed in the permit application submitted on March 26, 2020. Emissions are evaluated based on the updated tank description and operating scenario.
- Floating roof tank SN-1028 will be converted to an Internal Floating Roof (IFR) Tank.
- Addition of the Vapor Combustion Unit (SN-VCU1) to control vapor emissions from storage tank SN-1028. SN-VCU1 will be subject to the control requirements of NESHAP BBBBBB.
- Increased maximum allowable True Vapor Pressure (TVP) greater than 11.1 psia for the organic liquids stored, specifically for the hottest months of the year (May through September), at SN-1028 where the emissions will be routed to the newly added vapor combustion unit (SN-VCU1) during those months.
- Updated emission limits for the floating roof tank landings and cleaning emissions based on the latest AP-42 Chapter 7 emissions methodology.
- Removed SN-1061, Internal Floating Roof Tank.
- Addition of a Cummins emergency generator engine rated at 240 hp (SN-GEN2). SN-GEN2 will be subject to NSPS JJJJ and NESHAP ZZZZ.
- Removal of SN-GEN1, GeneracSG150 Generator Engine

Overall annual permitted emission limits will increase by 0.1 ton of SO₂ and 0.1 ton of CO; while emission limits will decrease by 66.7 tons of VOC, 0.1 ton of NO_x, and 2.07 tons of total HAPs with the above mentioned revisions to the permit.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

There are no ongoing compliance or enforcement activities or issues. The last inspection was in August of 2022 and the facility was found to be in compliance.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
 If yes, were GHG emission increases significant? N/A

b) Is the facility categorized as a major source for PSD? Y

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD.

Changes did not result in a modification under PSD, emission changes were far below PSD SER.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-1063 and SN-1064	VOC	NSPS, Subpart Kb
Facility	HAPs	NESHAP, Subpart BBBB
Facility	VOC	PSD
GEN1	NO _x , CO, VOC	NSPS, Subpart JJJJ and NESHAP, Subpart ZZZZ
Gasoline Tanks	VOC	NESHAP, Subpart WW

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
SN-VCU1	TBI	N/A	N/A	

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Rule 18 requirement.)

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
N/A		

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards N

If exempt, explain: _____

This modeling was from the permit renewal 1611-AOP-R7. One flare was removed and therefore since the emissions would be reduced, the modeling would still pass.

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H ₂ S	20 parts per million (5-minute average*)	0.131 (131)	P
	80 parts per billion (8-hour average) residential area	.077361 (77.361)	P
	100 parts per billion (8-hour average) nonresidential area	.077361 (77.361)	P

*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C_p = 5-minute average concentration

C_m = 1-hour average concentration

t_m = 60 minutes

t_p = 5 minutes

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments																		
All Tanks	AP-42 Chapter 7.1 Organic Liquid Storage Tanks, dated June 2020	SN-1001 – 1005 are fixed roofs and based on storing jet kerosene SN-1021 and up Store gasoline RVP ≤ 15 TVP ≤ 11.1 psia	Floating roofs or none, DEFRs for 1021, 1027, 1031	N/A																			
FUG1	EPA 453/R-95-017 (Nov, 1995) Oil and Gas Production Operations Average Emission Factors (lb/hr/Component) Table 2-3	<table border="1"> <thead> <tr> <th></th> <th>Counts</th> <th>EF</th> </tr> </thead> <tbody> <tr> <td>Valve</td> <td>995</td> <td>9.48E-5</td> </tr> <tr> <td>Pumps Seals</td> <td>34</td> <td>1.19E-3</td> </tr> <tr> <td>Flanges</td> <td>3190</td> <td>1.7E-5</td> </tr> <tr> <td>Connectors</td> <td>11</td> <td>1.7E-5</td> </tr> <tr> <td>Process Drains/Other</td> <td>15</td> <td>2.87E-4</td> </tr> </tbody> </table>		Counts	EF	Valve	995	9.48E-5	Pumps Seals	34	1.19E-3	Flanges	3190	1.7E-5	Connectors	11	1.7E-5	Process Drains/Other	15	2.87E-4	None	N/A	Uncontrolled Light Liquid Service
	Counts	EF																					
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Landing	AP-42 Chapter 7.1 Organic Liquid Storage Tanks, dated June 2020	4 cleanings per year site-wide 6 hours to float a tank 1021-1027, 1029-1031, & 1033 EFRs 32 landings per year 1032, 1063, 1064 IFRs 6 landings per year 1028 IFR 3 landings per year	None	N/A	Uncontrolled. This source accounts for emissions from floating roof tanks when the floating roof is not in contact with the surface of the liquid. Applicable for cleaning and maintenance operations.																		
GEN2	AP-42 Table 3.2-3 4SRB Manufacturer Spec for g/hp-hr	<u>lb/MMBtu</u> PM/PM ₁₀ : 1.94E-2 SO ₂ : 5.88E-4 Acrolein: 2.63E-3 Benzene: 1.58E-3	Catalyst	N/A	2.1 MMBtu/hr, 240 HP Natural Gas 100 hr/yr																		

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		Ethyl Benzene: 2.48E-5 PAH: 1.41E-4 Toluene: 5.58E-4 Xylene: 1.95E-4 <u>g/hp-hr</u> NO _x : 0.14 CO: 1.54 VOC: 0.18			
FLARE2	AP-42 Table 1.2, 1.3, 1.4, 13.5-1 and 13.5-2	7.6 lb/MMSCF PM/PM ₁₀ 1.888 lb/MMSCF HAPs 0.068 lb NO _x /MMBtu 0.31 lb CO/MMBtu 30ppmv H ₂ S Flare Flow rate = 62,500 scf/h FLARE2 (Ethane) – 100 hr/yr 6,250,000 scf/yr Pilot (propane) – 8760 hr/yr Flow rate=25 scf/h – 219,000 scf/yr		99% for ethane & methane 98% all other VOC 98% H ₂ S to SO ₂	Dry Gas Seal emissions included at 8760 hrs/yr
VCU	AP-42 13.5-1 & 2 AP-42 1.4-2	90 scf/hr per pilot 7500 scf/hr assist gas 1 pilot 7590 total gas 804.168 MMBTU/hr Waste gas 3584 btu/scf 54000 scf/hr 9032 scf/yr (may-sept) 38642 scf/yr landings (1028) 193.5 MMBTU/hr (NG) 170.86 BTU/hr (Tank stream)		98% VOC	

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
GEN2	NO _x , CO, VOC	See §60.4244	Only if purchase a non-certified engine, does not maintain properly, or conducts major	40 CFR §60.4243(f)

SN	Pollutants	Test Method	Test Interval	Justification
			repair/maintenance (See SC#57)	

17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
GEN2	Hours of operation	Non-resettable hours meter	When used	Y

18. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
All Tanks	Throughput limits	Varied	Monthly	Y
Landing	Emissions per tank per landing event	Calculate emissions. The 12-month rolling total is not to exceed 120.8 tpy VOC	Per event	Y
GEN2	Hours and classification of operation	100 hrs/yr	Monthly	N
	Hours and reason of non-emergency operation	non-emergency not maintenance/testing: 50 hrs/yr, Total: 100 hr/yr See SC#55	Monthly	N
	Hours and reason of operation using propane fuel	100 hr/yr without testing, emergency use only	Monthly	N
	Engine Certification	N/A	Continuous	N
	Manufacturer's Emission related instructions	N/A	Continuous	N
	Maintenance	Follow Manufacturer's Instructions	Monthly	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
GEN2	Any Performance Testing	2.0 g/HP-hr NO _x 4.0 g/HP-hr CO 1.0 g/HP-hr VOC Or 160 ppmvd@15% O ₂ NO _x 540 ppmvd@15% O ₂ CO 86 ppmvd@15% O ₂ VOC	If required by SC#66 and SC#68	Y
FLARE2	Flare usage	100 hrs/yr	Per event	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
GEN2	5%	Rule 18.501	Natural Gas Fuel
FLARE2	5%	Rule 18.501	Daily observation, when operating

20. DELETED CONDITIONS:

Former SC	Justification for removal
PWC 8	Completed: incorporation of the requirements of 40 C.F.R. Part 63, Subpart BBBB. Application submitted July 1, 2009 and implemented in 1611-AOP-R4.

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Pump Seal Vent Emissions	A-13	-	-	4.23	-	-	-	-

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1611-AOP-R9

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Enterprise Refined Products Company
 LLC (El Dorado Terminal)
 Permit Number: 1611-AOP-R10
 AFIN: 70-00400

\$/ton factor	28.14	Annual Chargeable Emissions (tpy)	<u>140.6</u>
Permit Type	Modification	Permit Fee \$	<u>1000</u>

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	-66.7
Initial Title V Permit Fee Chargeable Emissions (tpy)	

HAPs not included in VOC or PM:

Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants:

All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		0.2	0.2	0		
PM ₁₀		0.2	0.2	0	0	0.2
PM _{2.5}		0	0	0		
SO ₂		0.2	0.3	0.1	0.1	0.3
VOC		206.1	139.4	-66.7	-66.7	139.4
CO		2.4	2.5	0.1		
NO _x		0.8	0.7	-0.1	-0.1	0.7

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total HAPs**	<input type="checkbox"/>	7.39	5.32	-2.07		
H2S	<input type="checkbox"/>	0.01	0.01	0		