Title V Air Operation Permit Revision
Permit No. 0110051-023-AV

APPLICANT

The applicant for this project is Motiva Enterprises LLC. The applicant's responsible official and mailing address is: Mr. Jason Burnett, Regional Terminal Operations Manager, P.O. Box 4540 Houston, Texas 77210-4540.

FACILITY DESCRIPTION

Motiva Port Everglades West facility is a bulk petroleum and denatured ethanol products storage and distribution terminal located at 1180 Spangler Boulevard, Fort Lauderdale, Broward County, Florida. The total storage capacity is approximately 592,857 barrels (24,899,994 gallons). The terminal receives refined petroleum products (gasoline, gasoline/ethanol blends, ethanol, distillate fuels and additives) by way of marine vessel and tank truck. Fuel additives are sometimes received by way of tote or drum. These products are stored onsite in internal floating roof, vertical fixed roof, and horizontal fixed roof tanks and are distributed via tank truck. The gasoline/ethanol blend is produced in an enclosed system, located in each loading bay of the truck loading rack, that mixes denatured ethanol and gasoline into an E10 blend (90% gasoline and 10% denatured ethanol), or other gasoline/denatured ethanol blends depending on market conditions.

The truck loading rack which consists of four bays with 17 loading arms, for gasoline, distillate products, additive and denatured ethanol, is equipped with two VRUs for processing vapor emissions generated during loading. The loading rack is subject to 40 CFR 60, Subpart XX – Standards of Performance for Bulk Gasoline Terminals.

Vapor emissions (Volatile Organic Chemicals (VOC) and Hazardous Air Pollutants (HAPs), generated during bottom loading operations at the loading rack, are controlled by two vapor recovery units (VRUs).

A continuous emissions monitoring system (CEMS) that is installed on the VRUs to demonstrate compliance with 40 CFR 63 – Subpart BBBBBB (GACT) - Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. The terminal operates 24 hours per day, 365 days per year for a total of 8,760 hours per year. Storage Tank Nos. 10, 11, 12 and 13 are subject to 40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984. Tanks 7, 8, 9, 10, 11, 12 that internal floating roof tanks are subject to Rule 62-296.508, F.A.C. - Petroleum Liquid Storage. In order to keep the facility below 250 tons per year (TPY) to avoid Prevention of Significant Deterioration (PSD) Rule 62-212.400 F.A.C. requirements, Motiva limits the potential emissions, at the loading rack, by limiting the petroleum products and distillate fuel throughput to 750 million gallons per year.

The facility is a major source of VOC with a facility-wide VOC potential to emit (PTE) of 178.2 TPY and a synthetic minor source for HAP emissions. (below 10 TPY for single HAP and below 25 TPY for total HAPs). This project will increase the VOC potential emissions to 182.5 TPY. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities, which are listed in Attachment I-1, List of Insignificant Emissions Units and/or Activities.

The figure on the next page represents the general process flow diagram for the terminal.

REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
001	Loading Rack with Two VRUs for Petroleum Products, Gasoline/Ethanol and Denatured Ethanol
013	Piping and Equipment consisting of valves, fittings, and other equipment associated with petroleum products and ethanol loading or unloading operations
014	Internal Floating Roof Storage Tanks. Nos.: 7, 8, 9,10,11,12 and 13 for Petroleum Products and Denatured Ethanol.
015	Fixed Roof Storage Tanks for Additive, Diesel and Petroleum Contact Water (PCW).
016	Emergency Generators and Fire Pump Diesel Engines consisting of two 250 KW emergency generators and one 123 Hp fire pump. The three units are diesel –fired engines.

The following activities/equipment are considered insignificant emissions units: Paved roadways and parking areas, routine maintenance and repair activities (piping changes, filter changes/replacements, tank painting, etc.), truck loading rack pour-back drains. tank degassing and cleanings, chemical /solvent/waste storage drums, compressors, one emergency generator, welding activities and portable pumps, fugitives from spills and leaks, unloading operations from marine vessels and tank trucks, four 80 gallons surge tanks.

APPLICABLE REGULATIONS

Based on a review of the Title V air operation permit revision application received on May 26, 2017, it was concluded that the facility is not a major source of hazardous air pollutants (HAP). The terminal is a synthetic minor source of HAPs, therefore, the NESHAP -40 CFR 63- Subpart R-National Emission Standards for Gasoline Terminals and Pipeline Breakout Stations does not apply. The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA). The facility is a major Title V source of air pollution, for VOC, in accordance with Chapter 62-213, F.A.C. The facility is not a major source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. VOC emissions are 182.5 tons per year which is below the PSD threshold of 250 tons per year. Please note that per EPA's February 18, 1998 letter to Mecklenburg County, Department of Environmental Protection, Charlotte, North Carolina, Applicability Determination Request, Definition of a Major Source under 40 CFR 70.2, bulk petroleum terminals that handles refined petroleum products (e.g., gasoline) EPA determined that the PSD major source classification of bulk petroleum terminals with a potential to emit 100 TPY only applies to those terminals that handle crude oil. Therefore, Motiva's terminal is not a PSD facility as crude oil is not part of its loading operation.

A summary of applicable regulations is shown in the following table:

Regulation	EU No(s).
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	EU 001, 013, 014
40 CFR 60, Subpart XX	EU 001
40 CFR 63, Subpart BBBBBB	EU 001, 015
40 CFR 60, Subpart Kb	EU 001, 013, 014
40 CFR 64, Compliance Assurance Monitoring (CAM)	EU 001
40 CFR 60, Subpart IIII	EU 016
40 CFR 63, Subpart ZZZZ	EU 016
40 CFR 63, Subpart A, General Provisions	EU 001, 013, 014
State Rule Citations	
Rule 62-296.510 F.A.C. – Reasonable Available Control Technology	EU 001
Rule 62-296.508 F.A.C. – Reasonable Available Control Technology	EU 014
Rule 62-296.320(1) (a) F.A.C. - VOC or Organic Solvent Emissions	EU 001, 013, 014, 015, 016
Rule 62-296.320(2) F.A.C. - Objectionable Odor	EU 001, 013, 014, 015,016
Rule 62-210-650 F.A.C. Circumvention of air pollution control equipment	EU 001
County Rule Citations	
Broward County Chapter 27 Air Pollution Control, Article IV, Sec. 27-175(b) & (d) **	EU 001

****** Not Federally Enforceable

PROJECT DESCRIPTION

This project is to issue a construction permit concurrently with revision of the Title V operating permit 0110051-019-AV, issued June 30, 2014, to replace the domed external floating roof (DEFR) on storage tank 8 (EU 014) by an aluminum internal floating roof (IFR) with different fittings than the existing roof. Potential VOC

emissions from the loading rack (EU001) are expected to increase 4.3 tons per year (182.5 TPY -178.2 TPY). . The vapors from the loading rack are directed to the VRUs. Details of the potential emissions are addressed in Section 4.0 of the Technical Evaluation and Preliminary Determination (TEPD). This project does not alter the regulatory and permitting requirements or the regulatory classification of the terminal as a major source (Title V) source. No additional changes are requested at this time.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Revision received on May 26, 2017.

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 5171- Petroleum Bulk Stations and Terminals (except petroleum sold via retail method) North American Industry Classification System (NAICS): 424710 - Petroleum Bulk Stations and Terminals

HAP: The facility is not identified as a major source of hazardous air pollutants (HAP). The terminal is a synthetic minor source of HAPs, therefore, the NESHAP -40 CFR 63- Subpart R-National Emission Standards for Gasoline Terminals and Pipeline Breakout Stations does not apply.

Title IV: The facility does not operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is not a major source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. VOC emissions are 215 tons per year which is below 250 tons per year. Per EPA letter dated February 18, 1998 to Mecklenburg County, Department of Environmental Protection, Charlotte, North Carolina, Applicability Determination Request, Definition of a Major Source under 40 CFR 70.2, bulk petroleum terminals that handles refined petroleum products (e.g., gasoline) are not subject to 100 tons per year. EPA determined that the 100 tons per year PSD applicability only applies to bulk petroleum terminals that handle crude oil. Crude oil is not part of Motiva's loading operation.

NESHAP -40 CFR 63, Subpart BBBBBB. (GACT) Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. Emission units 001 and 015 are subject to GACT that establishes emission limitations and management practices for HAPs that are emitted from area sources (potential emissions do not exceed 10 tons per year of an individual HAP and 25 tons per year of Total HAP). This subpart also establishes requirements to demonstrate compliance with emission limitations and management practices. EU 001 has a continuous emissions monitoring system (CEMS) capable of measuring organic compound concentrations at the VRU outlet for compliance with 40 CFR 63, Subpart BBBBBB.

NSPS - 40 CFR 60, Subpart XX, Standards of Performance for Bulk Gasoline Terminals. It is adopted and incorporated by reference in Rule 62-204.800(7) (b) 53 F.A.C.; Emission unit 001 is regulated under this rule because the terminal commenced operation before November 5, 1990. It establishes that loading rack emissions shall not exceed 35 milligrams per liter of gasoline loaded.

Rule 62-296.510 F.A.C. – Reasonable Available Control Technology (RACT) Bulk Petroleum Terminals. EU 001 is subject to this rule. It establishes that loading rack emissions shall not exceed 80 milligrams per liter of gasoline loaded. The terminal opted to comply with the most stringent limit (35 milligrams per liter), while at the same time, it is in compliance with the upper limit (80 milligrams per liter).

EU-015 Petroleum Product Storage Tanks - Internal Floating Roofs (IFR). This emission unit is regulated under Rule 62-296.508 F.A.C., Reasonably Available Control Technology - Petroleum Liquid Storage Tanks equipped with IFR. In addition, Tanks No. 10, 11, 12 and 13 were installed after July 23, 1984 and are subject to NSPS- 40 CFR 60, Subpart Kb. Tanks 7, 8, 9, 10, 11, 12 and 13 are subject to Rule 62-296.508 F.A.C. which applies to all

fixed roof storage vessels with capacities equal to or greater than 42,000 gallons containing petroleum liquids whose true vapor pressure is greater than 1.50 psia but shall not be used if the petroleum liquid has a true vapor pressure of 11.0 psia or greater under actual storage conditions.

Motiva is complying with the Control Technology provisions of Rule 62-296.508 F.A.C by implementing the following:

1. Tanks are retrofitted with an internal floating roof equipped with a closure seal or seals to close the space between the roof edge and tank wall.
2. Tanks are maintained in such a way that there are no visible holes, tears, or other opening in the seal or seal fabric materials.
3. All openings, except stub drains, must be equipped with covers, lids or seals such that the cover, seal or lid is in the closed position at all times except on demand for sampling, maintenance, repair or operational practices.
4. Automatic bleeder vents must be closed at all times when the roof is floated off or landed on the roof leg supports.
5. Rim vents, if applicable, must be set to open when the roof is being floated off the roof leg support or at the manufacturer's recommended setting.
6. Internal floating roof tank inspections must be done in accordance with page 6-2 of EPA 450/2-77-036.

NSPS-40 CFR 60, Subpart A General Provisions. Since Motiva is subject to NSPS- 40 CR 60, Subparts Kb and XX, it is also subject to 40 CFR 60, Subpart A monitoring, recordkeeping and reporting requirements.

NESHAP-40 CFR 63, Subpart A General Provisions. As Motiva is subject to NESHAP- 40 CFR 63, Subpart BBBBBB, it is also subject to 40 CFR 60, Subpart A monitoring, recordkeeping and reporting requirements

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) applies to emissions unit 001 for VOC. VOC emissions are controlled by a VRU and a VCU at the loading rack. EU 001 meets the applicability requirements of this regulation, which are the following:

1. EU 001 pre-controlled potential VOC emissions exceed the major source threshold (100 tpy)
2. EU 001 is subject to an emission limitation.
3. EU 001 uses an emissions control device (VRU and VCU) to achieve compliance with the emissions limitation. The storage tanks are not subject to CAM.

GHG: The facility is not identified as a major source of greenhouse gas (GHG) pollutant.

NSPS-40 CFR 60, Subpart IIII- Standards of performance for Stationary Compression Ignition internal Combustion Engines (CI ICE). Engine No.1 and Engine No. 3 (EU 016) are subject to this rule because they are CI ICE and were manufactured after July 11, 2005. Engine No.2 (EU 016) is not subject to this rule.

NESHAP – 40 CFR 63, Subpart ZZZZ-National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). Engine No.2 (EU 016) is subject to this subpart, because it is an existing engine located in an area source of HAP (potential emissions of a single HAP less than 10 ton per year, total HAP less than 25 tons per year), site rating is less than 500 HP and were manufactured before June 12, 2006.

Table A below summarizes 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ applicability to EU 016.

TABLE A

CI ICE	Description	Regulation
Engine No. 1	Emergency Generator - 250 KW unit (476 hp), 1.5 liters/cylinder, Cummins QSL9-G3 NR3, Manufactured on 8/17/2010.	NSPS Subpart IIII
Engine No. 2	Emergency Generator - 475 hp (250 KW), 2.5 liters/cylinder, Cummins QSX 15 engine, ordered on 2005.	NESHAP Subpart ZZZZ
Engine No. 3	Fire Pump – 123 bhp (64 KW) Clarke JUAR-UF49 engine 1.1 liters/cylinder. Manufactured on 2007, ordered on 2009.	NSPS Subpart IIII

PROJECT REVIEW

The project consists in the replacement of the domed external floating roof (DEFR) on storage tank 8 (EU 014) by an aluminum internal floating roof (IFR) with different fittings than the existing roof. Changes to the permit made as part of this revision are shown in ~~strike through~~ format for deletions and in double underline format for additions. For ease of identification, all changes have also been highlighted in yellow within the permit document.

Permit to be revised: 0110051-019-AV, Section III, Subsection A, Specific Condition A.1.

A.1. (a) Capacity. The tanks listed below have the following safe fill capacities:

Tank No.		Capacity Gallons (cubic meters)	Primary Seal	Secondary Seal
7	IFR	2,097,295(7,939)	Mechanical	Rim-mounted
8	~~DEFR~~	3,787,399(14,337)	Shoe	Rim-mounted
	IFR	1,680,656(6,362)	Mechanical	None
9	IFR	3,107,757 (11,764)	Shoe	Rim-mounted
10	IFR	3,781,477(14,314)	Mechanical	Rim-mounted
11	IFR	3,781,477(14,314)	Shoe	Rim-mounted
12	IFR	6,663,944(25,226)	Mechanical	Rim-mounted

~~DEFR: Domed external floating roof tanks~~.
IFR: Internal floating roof tanks.

(b) Throughput. The throughput shall not exceed 750,000,000 gallons per year of petroleum products and denatured ethanol, calculated on a twelve-month rolling total basis.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

CONCLUSION

This project revises the Title V air operation permit No. 0110051-019-AV, which was effective on June 30, 2014. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.