

Application Review

Issue Date: July ##, 2018

Region: Winston-Salem Regional Office
County: Guilford
NC Facility ID: 4100295
Inspector's Name: Maria Aloyo
Date of Last Inspection: 03/08/2018
Compliance Code: 3 / Compliance - inspection

Facility Data Applicant (Facility's Name): Kinder Morgan Southeast Terminals LLC- Greensboro 1 Terminal Facility Address: Kinder Morgan Southeast Terminals LLC- Greensboro 1 Terminal 6907 West Market Street Greensboro, NC 27409 SIC: 4226 / Special Warehousing and Storage NAICS: 493190 / Other Warehousing Storage Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			Permit Applicability (this application only) SIP: 15A NCAC 02Q .0501(c)(1) NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: 15A NCAC 2Q .0317 of 02D .0530 NC Toxics: N/A 112(r): N/A Other: N/A				
Contact Data			Application Data				
Facility Contact Barry Furr Terminal Manager (336) 855-4460 6907 West Market Street Greensboro, NC 27409	Authorized Contact Wes Melton Director of Operations (770) 751-4142 1000 Windward Concourse, Suite 450 Alpharetta, GA 30005	Technical Contact Johnny Tapia Senior EHS Specialist (704) 249-9936 502 Tom Sadler Road Charlotte, NC 28214	Application Number: 4100295.17C Date Received: 08/31/2017 Application Type: Modification Application Schedule: TV-1st Time Existing Permit Data Existing Permit Number: 04739/R20 Existing Permit Issue Date: 11/09/2017 Existing Permit Expiration Date: 06/30/2024				
Total Actual emissions in TONS/YEAR:							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2015	0.0300	4.62	21.31	3.88	0.3500	0.9701	0.2349 [Xylene (mixed isomers)]
2010	0.0300	4.64	43.83	3.90	0.3500	1.29	0.2485 [Hexane, n-]
2005	---	---	68.99	---	---	3.32	0.9592 [Xylene (mixed isomers)]
Review Engineer: Richard Simpson							
Review Engineer's Signature:				Comments / Recommendations: Issue: 04739/T21 Permit Issue Date: July ##, 2018 Permit Expiration Date: June 30, 2023			
Date: July ##, 2018							

I. Introduction:

Kinder Morgan Southeast Terminals LLC- Greensboro 1 Terminal currently holds Synthetic Minor Permit No. 04739R20 with an expiration date of June 30, 2024 for a bulk gasoline and diesel fuel terminal in Greensboro, Guilford County, North Carolina.

The purpose of this application is to request the change in the status of the terminal from a synthetic minor facility to a Title V. Application No. 4100295.17C was received on August 31, 2017 and it was considered complete on that date. This application will be processed in accordance with 15A NCAC 2Q .0501(c)(1) and will go through a 30 day public notice and a 45 day EPA review at this time.

II. Description of Facility:

Kinder Morgan Southeast Terminals LLC- Greensboro 1 Terminal is a bulk gasoline and diesel fuel terminal that operates 24 hours a day, 7 days per week, and 52 weeks per year. This facility is a fuel distribution terminal that receives gasoline and diesel through two incoming pipelines. The products are stored in tanks to be loaded onto trucks for distribution to gasoline dispensing facilities (GDFs). Ethanol is offloaded from trucks at this site for storage, and blending into existing product tanks.

Products are pumped from the large storage tanks to a loading rack. During truck loading, vapor hoses are connected to the tank trucks to recover any displaced gasoline vapors. The vapors are displaced to a vapor recovery unit. This unit consists of a 2-bed carbon adsorber system and a vacuum condenser. The unit has a 16 minute cycle time and continuously monitors both vacuum pressure on the condenser and outlet VOC concentration as propane.

III. History/Background/Application Chronology

June 23, 2017 - Permit **04739R19** was submitted to the facility for an administrative amendment.

August 31, 2017 - Permit application **4100295.17B** was received for a minor modification and a permit was sent November 9, 2017.

August 31, 2017 - Permit application **4100295.17C** was received for a 1st Time Title V source. A comprehensive acknowledgement letter was sent to the facility.

November 9, 2017 – Permit **04739R20** was submitted as 1st Time Title V facility and with a minor modification.

April 5-May 25, 2018 – By phone conversation, emails, and facility site visit between facility engineer Johnny Tapia and permit engineer Richard Simpson, updates and suggestions were discussed.

April 24 – May 25, 2018 – The facility, Winston-Salem Regional Office, and Stationary Compliance Section were requested by the Permitting Section to comment on the draft permit and review. Comments were received and included in the permit.

May ##, 2018 – The initial Title V proposed permit was posted for public comment and EPA review.

June ##, 2018 – TVEE changes were approved by Ms. Jenny Sheppard TVEE Coordinator.

June ##, 2018 – The 30-day public notice ended.

July ##, 2018 –EPA 45 day review period ended.

July ##, 2018 – Permit 04739T21 was issued as a 1st Time Title V source.

IV. Permit Modifications/Changes and ESM Discussion

The following table describes all changes made from previous permit as part of the initial Title V application.

Page(s)	Section	Description of Change(s)
Cover and throughout	Throughout	Updated all tables, dates, and permit revision numbers.
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Attachment	Insignificant Activities	Changed the status of tank ID No. ITK-24 to GACT BBBBBB since applicable.
Attachment	Insignificant Activities	Changed tank ID No. to ITK-26 from IKK-0026.
Attachment	Insignificant Activities	Deleted the NSPS Dc status of ID No. ITPH-1 since the unit is a process heater.
3	Section 1	Deleted the temporary portable vapor combustion unit (I.D No. VCU-1) since it has been removed from the facility.
3	Section 1	Deleted the GACT BBBBBB requirement for I.D. No. TK-11 that stores transmix since transmix does not meet the definition of gasoline.
4	Section A 3.	Moved 40 CFR 60 Subpart XX to Section 2.1 A.1. and updated to the most current regulations. Included the definition of gasoline for clarity since <u>Subpart XX does not apply to distillates fuels such as diesel, jet fuel, etc.</u>
4	Section A 3.	Moved 40 CFR 60 Subpart Kb to Section 2.1 B.1. and updated to the most current regulations.
4-5	Section A. 2, 4, 5, and 7	Sections are in the General Conditions in Section 3.
5	Section A 6.	Removed 15A NCAC 02D .0903 rule from the permit since the facility is subject to other sections of .0900 rules, all of which already have their own recordkeeping requirements clearly outlined in their respective permit conditions.
6	Section A 8.	Removed 15 A NCAC 02D .0912 rule from the permit since this rule requires the owner or operators of VOC sources subject to other 15 A NCAC 02D .0900 rules to demonstrate compliance by the methods described in NCAC 02D .2600 when the director requests such a demonstration. The terminals are required to test using the methods described in 40 CFR Part 60 Subpart XX which is also required by NCAC 15A 02D .2613.
6	Section A. 9.	15A NCAC 02D .0925 was moved to Section 2.1 B.2. and updated to the most current regulations.
7	Section A. 10.	15A NCAC 02D .0927 was moved to Section 2.1 A.2. and updated to the most current regulations.
9	Section A. 11.	15A NCAC 02D .0932 was moved to Section 2.1 A.3. and updated to the most current regulations.
11	Section A. 12.	40 CFR 63 Subpart BBBBBB was moved to Section 2.2 A.2.
17	Section A. 13.	15A NCAC 02D .1806 was moved to Section 2.2 A.3.
18	Section A. 14.	Removed 15A NCAC 02D .2613 rule from the permit for bulk gasoline terminals. This rule requires bulk gasoline terminal VOC emission to be determined through the procedures set forth in 40 CFR Part 60 Subpart XX. This permit already has a condition requiring compliance with this subpart.

Page(s)	Section	Description of Change(s)
18	Section A. 15.	Removed 15A NCAC 02D .2614 rule from the permit since 40 CFR Part 60 Subpart XX uses a different methodology to determine control efficiency. This condition was inadvertently introduced in a previous permit
18	Section A. 16.	15A NCAC 02D .2615 was moved to Section 2.1 A.4.
19	Section A. 17	40 CFR Part 68 Section 112(r) was moved to Section 2.3 and updated to the most current regulations and date requirements.
19	Section A. 18	15A NCAC 02Q .0317 of 02D .0530 (PSD Avoidance) was moved to Section 2.2 A.1. Any language for the temporary portable vapor combustion unit (I.D No. VCU-1) was deleted since it has been removed from the facility.
20	Section A. 18.v.	Since the facility monitors the vapor recovery unit (I.D. No. VRU-1) with a continuous emissions monitor, the requirement for using the vacuum on the regeneration side of the carbon beds was deleted.
19	Section A. 18	In Section 2.2 A.1.b.iii., included annual inspection for all VOC sources listed in the permit. In Section 2.2 A.1.c.-d., included vapor recovery unit testing requirements.
19	Section A. 18	In Section 2.2 A.1.e., inserted the monitoring and recordkeeping requirements which includes the calculations of VOC emission sources facility-wide.
22-24	Section 3.	The General Conditions were updated to updated to latest version of DAQ shell version 5.2 04/03/2018.

There were changes made to the Title V Equipment Editor (TVEE) under this permit modification.

V. Regulatory Review/Equipment Changes

The facility is currently subject to the following regulations:

- 15A NCAC 02D .0524, "New Source Performance Standards (40 CFR 60, Subpart Kb)"
- 15A NCAC 02D .0524, "New Source Performance Standards (40 CFR 60, Subpart XX)"
- 15A NCAC 02D .0925, "Petroleum Liquid Storage in Fixed Roof Tanks"
- 15A NCAC 02D .0927, "Bulk Gasoline Terminals"
- 15A NCAC 02D .0932, "Gasoline Truck Tanks and Vapor Collection Systems"
- 15A NCAC 02D .1111, "Maximum Achievable Control Technology (40 CFR 63, Subpart BBBBBB)"
- 15A NCAC 02D .1806, "Control and Prohibition of Odorous Emissions"
- 15A NCAC 02D .2615, "Determination of Leak Tightness and Vapor Leaks"
- 15A NCAC 02Q .0317, "Avoidance Conditions" (for 15A NCAC 2D .0530, Prevention of Significant Deterioration)

An extensive review for each applicable regulation is not included in this document. The facility's status with respect to all regulations has not changed. For a discussion of MACT, CAM, and PSD requirements, see Section VI. The permit will be updated to reflect the most current stipulations for all applicable regulations. Detailed changes are noted in the above Table of Changes.

For this 1st Time Title V application, the facility removed the temporary portable vapor combustion unit (**ID No. VCU-1**) which is no longer in service. (**ID No. VRU-1**) has had maintenance and has been upgraded to a dry vacuum technology.

VI. NSPS, NESHAPS/MACT/GACT, PSD, 112(r), CAM

NSPS – The facility is required to comply with New Source Performance Standards (NSPS) that were promulgated in 40 CFR Part 60 by the EPA. The facility is subject to Subpart XX for “Bulk Gasoline Terminals” due to the loading rack (LR-1). The source is limited to 35 milligrams of VOC per liter of gasoline loaded. In order to ensure compliance with the VOC emission limit, the loading rack shall be equipped with a vapor recovery unit (VRU-1) that must be operated whenever gasoline is being loaded. Gasoline, defined as any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kPa or greater, is used as a fuel for internal combustion engines. 40 CFR 60 Subpart XX definition of gasoline does not apply to distillates fuels such as diesel, jet fuel, etc. Testing was performed on VRU-1 on October 18, 2017 for changing to a non-methane analyzer. A performance test on VRU-1 was performed on May 23, 2018 to test for the lower VOC emission limit of 10 mg/L of gasoline loaded.

To ensure that optimum control efficiency is maintained, the facility shall establish an inspection and maintenance schedule/checklist based on manufacturer's recommendations. An inspection of the structural integrity and the ductwork leading to the VRU-1 shall be performed annually. A VRU-1 logbook shall be kept on site and made available to DAQ personnel upon request. Any variance from the VRU-1 manufacturer's recommendations shall be investigated with corrections made and date of actions recorded in the logbook.

The facility has a source which is subject to Subpart Kb “Standards of Performance for Volatile Organic Liquid Storage Vessels.” due to a tank with internal floating roof, storing gasoline, ethanol, or diesel (81,000 barrel capacity, ID No. TK-15). This tank was previously modified after July 23, 1984 for the storage of gasoline, ethanol, or diesel. TK-15 also has a storage capacity greater than 75 cubic meters. This 1st Time Title V permit does not affect this status.

NESHAPS/MACT/GACT – The Permittee is currently subject to the General Achievable Control Technology Standards 40 CFR 63 Subpart BBBB, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities," including Subpart A "General Provisions." The permit currently includes references to the requirements in each of the paragraphs of this Subpart. This 1st Time Title V application does not affect this status.

PSD – The facility is a PSD minor facility for VOC emissions. The Permittee is subject to the following Prevention of Significant Deterioration avoidance permit conditions 15A NCAC 02Q .0317, Avoidance Conditions (for 15A NCAC 2D .0530, Prevention of Significant Deterioration). Based on the attached EPA memo dated February 18, 1998, EPA determined that the (xxii) source category described as “Petroleum storage and transfer units with a total of 300,000 barrels” does not extend to gasoline/fuel terminals. Therefore, gasoline storage facilities are not among the 28 industrial source categories listed in 40 CFR 51.166(b)(1)(i)(a) (See attached letter). This 1st Time Title V facility-wide PSD limitation for VOCs is 249 tons per consecutive 12-month period. The allowable mission limits for the vapor recovery unit (VRU-1) has been reduced from 35 mg of VOC/liter to 10 mg VOC/liter of gasoline unloaded and will be used to calculate the emissions for the facility-wide VOC avoidance limit.

112(r) – This facility is subject to the RMP requirements of Section 112(r) of the Clean Air Act under §68.10(a) because they store more than 10,000 pounds of butane, one of the 63 flammable substances listed in §68.130. The pressurized butane storage tank (60,000-gallon capacity; IBU-01), which became operational on May 8, 2013, equates to roughly 287,146 pounds using a liquid butane density of 35.8 pounds/cubic feet. The facility is subject to Program Level 3 requirements under §68.10(d)(2) because

they are subject to the OSHA process safety management standard under §1910.119(a)(ii). Butane has the potential to be stored in a quantity of 10,000 pounds or more, its flashpoint (-76°F) is less than 73.4°F, and its boiling point (31.1°F) is less than 95°F, so that it is considered a Category 1 flammable liquid as it is defined at §1910.106(a)(19)(i). This permit's 1st Time Title V permit does not affect this status.

CAM – 40 CFR 64 requires that a compliance assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. CAM is not applicable for this facility.

VII. Facility Wide Air Toxics (State Enforceable Only)

The facility has not previously triggered a toxics review, and a toxics review will not be triggered with this 1st Time Title V application. The facility is subject to GACT 40 CFR Part 63 Subpart BBBBBB and does not require a permit to emit toxics. The facility is currently exempt from toxics regulations per 15A NCAC 02Q .0702 (a) and (c). Per 15A NCAC 02Q .0702(c), “The addition or modification of an activity identified in Paragraph (a) of this Rule shall not cause the source or facility to be evaluated for emissions of toxic air pollutants.” This modification does not present an unsafe health risk from the facility.

VIII. Facility Emissions Review

The actual emissions of the last five years are listed in the first page of this review. After the additional VOC concentration restrictions on VRU-1 of 10 mg VOC/liter, the estimated potential VOC emissions from this facility are being reduced. There were no changes to the 1st Time Title V potential emissions.

Actual emissions from previous years are listed on Page 1.

IX. Compliance Status

Five year compliance history

On January 27, 2017 Kinder Morgan submitted a Semiannual Compliance Certificate to this office in accordance with 40 CFR Part 63 Subpart BBBBBB. The report revealed the facility staff accidentally left one of the internal floating roof support legs on tank 4 in the higher maintenance position, rather than the lower operational position, resulting in two unplanned floating roof landings. Landing the floating roof when the tank was not being emptied or refilled, constituted a deficiency in fulfilling the requirements 40 CFR Part 63 Subpart BBBBBB, as referenced by Condition A.12.a.i.B.II of Air Quality Permit 04739R18. A Notice of Deficiency was sent to this facility on February 23, 2017.

On February 8, 2017, Davis Murphy of the WSRO office conducted a full compliance evaluation of the facility. The conclusion from his inspection noted; “Based on review of records and visual observation, this facility appeared to be operating in compliance with Air Quality rules and regulations at the time of this inspection.”

On March 8, 2018, Davis Maria Aloyo of the WSRO office conducted a full compliance evaluation of the facility. The conclusion from his inspection noted; “Based on a review of records and visual observations, Kinder Morgan Southeast Terminals, LLC – Greensboro 1 Terminal appeared to be operating in compliance with Air Quality rules and regulations at the time of this inspection.”

X. Public Notice/EPA and Affected State(s) Review

EPA's 45 Day Review period

Ms. Heather Ceron (U.S. EPA, Region IV) was provided a PROPOSED permit for review on May XX, 2018. EPA 45 day review period ended on July ##, 2018. No comments were offered or received.

Public Notice

The 30-day public notice of the proposed permit was posted on the NCDAQ website on May ##, 2018. No comments were offered or received.

XI. Other Regulatory Considerations

- P.E. Seal was received with this application from Mr. Joe W. Sullivan who is registered in the State of North Carolina.
- A zoning consistency determination was received on August 31, 2017 with this application.
- An application fee was required for this 1st Time application and was received on August 31, 2017.
- Guilford County has triggered increment tracking under PSD for PM10 and SO₂. However, this permit for an 1st Time Title V application does not consume or expand increments for any pollutants.

XII. Recommendations

The permit 1st Time Title V application for Kinder Morgan Southeast Terminals LLC- Greensboro 1 Terminal in Greensboro, Guilford County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 04739T21.

February 18 , 1998

4APT-ARB

Ms. Chun-chi S. Liu
Mecklenburg County
Department of Environmental Protection
700 N. Tryon Street, suite 205
Charlotte, North Carolina 28202-2236

Subject: Applicability Determination Request ;
Definition of a "Major Source" under 40 CFR 70.2

Dear Ms. Liu:

Thank you for your letter of December 22, 1997 (enclosed for reference) in which you requested a written applicability determination from the Environmental Protection Agency (EPA) regarding the 40 CFR 70.2 definition of a "major source". Specifically, you asked if gasoline should be considered as petroleum in determining whether or not a source is "major" if the source is a bulk gasoline terminal .

As referenced in your letter, under the definition of "major source" in section 40 CFR 70.2, EPA lists 27 categories of sources which must aggregate their fugitive emissions toward title V applicability. For the most part, the listed categories are consistent with the named category list presented at 40 CFR 52 .21 (b) (1) (i) (a) under the Prevention of Significant Deterioration (PSD) program. This letter will address gasoline/ fuel terminals as they may apply to the " (xxii) Petroleum storage and transfer units with a total storage capacity exceeding 300, 000 barrels " and 'I (xxvii) All other stationary source categories regulated by a standard promulgated under section 111 or 112 of the Act, but only with respect to those air pollutants that have been regulated for that category" source categories as listed under the major source definition in 40 CFR Part 70.

EPA has determined that the "xxii " source category, as listed under the major source definition in 40 CFR Part 70, does not extend to gasoline/ fuel terminals. Upon review of the term "petroleum" as defined in 40 CFR 60, Subparts J, K, Ka, and Kb, it is our determination that the named category was limited to crude oil and not its refined products (e.g. , gasoline) . With respect to the "xxvii " source category, the Region has determined that fugitive emissions do not have to be aggregated toward title V applicability since the applicable regulation (40 CFR Part 60, subpart XX-Standards

of Performance for Bulk Gasoline terminals) was promulgated after August 7 , 1980. As you know, your agency or any permitting authority may apply a stricter interpretation of the (xxii) source category and require that gasoline be considered toward the capacity limitation in order to determine whether fugitive emissions from gasoline should be aggregated in determining title V applicability.

Thank you for the opportunity to clarify this matter . If you have any further questions please contact Doug Deakin of my staff at (404) 562-9114.

Sincerely yours ,

R. Douglas Neeley
Chief
Air & Radiation Technology Branch
Air, Pesticides & Toxics
Management Division

Enclosures