



**CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
AIR MANAGEMENT SERVICES**

**RACT PLAN APPROVAL (IP16-000233)**

Effective Date: April 20, 2020

Expiration Date: None

Replaces Permit No.: PA-5003 effective on 2/9/2016

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and after due consideration of a Reasonably Available Control Technology (RACT) proposal received under the Pennsylvania Code, Title 25, Chapter 129.96 thru 129.100, of the rules and regulations of the Pennsylvania Department of Environmental Protection (PADEP), Air Management Services (AMS) approved the RACT II proposal of the Facility below for the source(s) listed in section 1.A. Emission Sources of the attached RACT II Plan Approval.

Facility: Kinder Morgan Liquid Terminals, LLC – Philadelphia Terminal

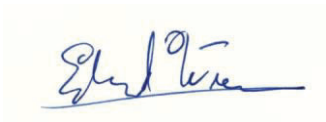
Owner: Kinder Morgan Liquid Terminals, LLC  
 Location: 3300 North Delaware Ave., Philadelphia, PA 19134  
 Mailing Address: 3300 North Delaware Ave., Philadelphia, PA 19134

SIC Code(s): 4226  
 Plant ID: 05003

Facility Contact: Edward Wittenberg  
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Responsible Official: Edward Wittenberg  
 Title: Terminal Manager



4/20/20

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**Edward Wiener, Chief of Source Registration**

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**Date**

**The RACT plan approval is subject to the following conditions:**

1. The purpose of this Plan Approval is to establish Volatile Organic Compound (VOC) Reasonably Available Control Technology (RACT) for Kinder Morgan Liquid Terminals, LLC. This includes the following emission sources and control equipment:
  - A. Emission Sources:
    1. Controlled tank car/truck loading rack positions. Each controlled rack loading position is connected to the NAO Thermal Oxidation Unit. An alternative control device may be used that meets the requirements of Section 2.A. Plan Approval Application shall be submitted and approved by AMS prior to installation and shall include an anti-backsliding analysis.
    2. Uncontrolled tank car /truck loading positions. Each uncontrolled rack loading position is not connected to a control device.
    3. Marine vessel loading operations, two loading berths.
    4. Fugitive emissions.
  - B. Control Equipment:
    1. NAO Thermal Oxidation Unit-This unit is associated with controlled tank car/truck loading positions. This unit captures VOC emissions from controlled car/truck loading positions.
    2. Marine Vapor Combustion Unit. This unit captures vapors from cumene loading at the marine vessel loading operations. In the future, the MVCU may be modified through a Plan Approval to allow it to control VOCs from truck loading operations meeting the requirements of Conditions 1.A.1 and 2.A.
2. This approval authorizes:
  - A. Volatile Organic Compounds (VOC) liquids with a Reid Vapor Pressure (RVP) greater than or equal to 4.0 pounds per square inch (psi) shall only be loaded into tank car/truck loading positions connected to the NAO Thermal Oxidation Unit or an alternative control device complying with 0.0668 pounds (30.3 grams) of organic liquids (measured as propane) are emitted to the atmosphere for every 100 gallons (380 liters) of liquids loaded.
  - B. Each uncontrolled tank car/truck loading position shall be limited to processing organic liquid with an RVP less than 4.0 pounds per square inch (psi).
  - C. Marine vessel loading operations shall not process petroleum distillate with a vapor pressure of 4.0 RVP or greater.

### 3. Emission Limitations

- A. Controlled tank car/truck loading positions at the facility shall comply with the following:
  - 1. The total combined VOC emissions from all controlled tank car/truck loading rack positions at the facility shall be less than 57.0 pounds per hour.
- B. Loading operations at “uncontrolled tank car/truck loading positions” shall comply with the following:
  - 1. Total combined emissions from all “uncontrolled tank car/truck loading positions” at the facility combined shall be limited to 129 tons of VOC per 12 month rolling period;
  - 2. Emissions from each “uncontrolled tank car/truck loading position” shall not exceed 9.0 tons of VOC per 12 month rolling period;
  - 3. Emissions from each “uncontrolled tank car/truck loading position” shall not exceed 18.1 pounds of VOC per hour.
- C. Marine loading operations at the facility shall comply with the following:
  - 1. Marine vessel loading operations (including both controlled and uncontrolled loading) shall not exceed 29 tons of VOC per 12-month rolling period.
- D. Fugitive emissions shall comply with the requirements of AMR V Section XIII.

### 4. Testing Requirements

- A. For controlled truck loading operations, Kinder Morgan shall conduct stack testing per AMS approved protocol on the NAO Thermal Oxidation Unit or alternative control device at least every five (5) years to determine compliance with Condition 2.A. No test is required if the NAO Thermal Oxidation is relegated to back up service and operated less than 500 hours per year and an alternative control device becomes the primary control device. Testing of the alternative control device to demonstrate compliance with Condition 2.A shall be conducted within 180 days of installation.

### 5. Monitoring Requirements

- A. Kinder Morgan shall monitor throughput of material processed and vapor pressures for all tanks, marine loading, and tank car/truck loading racks daily.

### 6. Recordkeeping and Reporting Requirements

- A. For controlled and uncontrolled loading tank car/truck operations, Kinder Morgan Liquid Terminals, LLC shall keep records of the following:
  - 1. Which rack is being used for loading.

2. Which position at each rack is being used for loading.
  3. Whether the position being used for loading is controlled or uncontrolled.
  4. The name of material loaded per position.
  5. Throughputs of each material loaded per position.
  6. The corresponding vapor pressures of the material loaded per position.
  7. Emissions calculations from all controlled loading rack positions to demonstrate compliance with the lb/hour limit of Condition 3.A.1.
  8. Emissions calculations from all uncontrolled loading rack positions on a monthly and rolling 12-month period to demonstrate compliance with Condition 3.B.1.
  9. Emissions calculations per uncontrolled loading rack position on an hourly, monthly, and rolling 12-month period to demonstrate compliance with Conditions 3.B.2 and 3.B.3.
- B. For marine vessel loading operations, Kinder Morgan Liquid Terminals, LLC shall keep records of the following:
1. The name of material loaded.
  2. Whether the loading is controlled or uncontrolled.
  3. Throughputs of each material loaded.
  4. Vapor pressure (psia @ 20°C) of all commodities loaded into marine vessels and the temperature during loading operations.
  5. Emission calculations on a monthly and rolling 12-month period to demonstrate compliance with Condition 3.C.1.
- C. Kinder Morgan Liquid Terminals, LLC shall monitor and maintain a file containing all the records and other data that are required to be collected to demonstrate compliance with VOC RACT requirements.
- D. The records shall provide sufficient data and calculations to clearly demonstrate that the VOC RACT requirements are met.
- E. Data of information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.
- F. Records shall be kept for at least five (5) years and shall be made available to AMS on request.

7. RACT Implementation Schedule

- A. Upon issuance of this approval, Kinder Morgan Liquid Terminals, LLC shall begin immediate implementation of the measures necessary to comply with the approved RACT plan approval.
8. Revisions to any emission limitations incorporated in this RACT Approval will require resubmission as revision to the PA State Implementation Plan. The applicant shall bear the cost of public hearing and notification required for EPA approval as stipulated in 25 PA Code 129.91(h).