**TECHNICAL REVIEW AND EVALUATION**
**OF APPLICATION FOR ENTERPRISE PRODUCTS OPERATING LLC**
**AIR QUALITY PERMIT NO. 73431**

**ENTERPRISE PRODUCTS OPERATING LLC**

## I. INTRODUCTION

This Class II air quality synthetic minor renewal permit is issued to Enterprise Products Operating LLC, the Permittee, for continued operation of the Adamana LPG Terminal located at 113 County Road 7156, Holbrook, AZ 86025.

**A.** Company Information

1. Facility Name: Enterprise Products - Adamana LPG Terminal
2. Facility Location: 113 County Road 7156, Holbrook, AZ 86025
3. Mailing Address: P.O. Box 4324, Houston, TX 77210

**B.** Attainment Classification

The facility is located in an attainment area with respect to all the criteria pollutants.

## II. PROCESS DESCRIPTION

**A.** The Adamana LPG Terminal is a storage facility which manages liquid propane and butane products (referred to as liquefied petroleum gas (LPG)). The facility has a throughput of approximately two million barrels per year. During the spring/summer "In-Haul" season (from April through September), LPG is received via rail and trucks, unloaded to pressurized tanks (bullets) by using electric compressors, and then pumped by product injection pumps into underground salt caverns for storage.

During the Fall/Winter Out-Haul season (October through March) LPG from the caverns is loaded into rail cars and trucks. The LPG product is displaced from the caverns by injecting brine. The facility has ponds which are used for storing brine when it is not in caverns. Brine removed from the caverns goes through a physical degasification process in which any entrained product vaporizes out of the water and is sent to brine degasser flare. After degasification, the brine is sent to holding ponds.

As LPG comes out of caverns, it is passed through coalescers is to separate water from the product gas, and then passed through a desiccant bed to remove trace amounts of water. The dried product is then loaded into railcars and/or tank trucks for transport offsite. Once the loading is completed, desiccant bed is flushed with the pressurized product to remove water.

Process emissions from the desiccant dryer are sent to facility flare. Also, the process emissions during blowdown from compressors and coalescers are sent to the facility flare for minimizing VOC emissions.

**B.** Control Devices

DRAFT

This facility has two air-assisted flares for control of VOC emissions:

1. Degasser flare is utilized for control of VOC emissions from brine degasser with 98% control efficiency.

2. Facility flare is utilized for control emissions during blowdown from desiccant dryer, electric compressors and coalescers with 98% control efficiency.

## III. EMISSIONS

**Table 1: Potential Emissions***

| Pollutant | Emissions (tons per year) |
|---|---|
| **$NO_x$** | 1.459 |
| **CO** | 5.812 |
| **VOC** | 16.790 |

*Potential Emissions are calculated based on the control efficiency of 98%.

## IV. MINOR NEW SOURCE REVIEW

This is not a new source and does not have new emissions. Minor NSR is not triggered.

## V. APPLICABLE REGULATIONS

Table 2 displays the applicable requirements for each permitted piece of equipment along with a explanation of why the requirement is applicable.

**Table 2: Verification of Applicable Regulations**

| Unit | Control Device | Rule | Discussion |
|---|---|---|---|
| Degasser | Degasser flare | A.A.C R18-2-730 | Standards of Performance for Unclassified Sources |
| Desiccant Dryer, Coalescers, Electric Compressors | Facility flare | A.A.C R18-2-730 | Standards of Performance for Unclassified Sources |
| Gasoline Storage Tank | Submerged filling | A.A.C. R18-2-710 | Standards of Performance for Existing Storage Vessels for Petroleum Liquids |
| Gasoline Dispensing Facility | N/A | 40 CFR 63, Subpart CCCCCC | National Emission Standards for Hazardous Air Pollutants (NESHAP) for Gasoline Dispensing Facilities |

DRAFT

| Unit | Control Device | Rule | Discussion |
|---|---|---|---|
| Fugitive dust sources | Water Trucks Dust Suppressants | A.A.C. R18-2 Article 6<br>A.A.C. R18-2-702 | These standards are applicable to all fugitive dust sources at the facility. |
| Abrasive Blasting | Wet blasting; Dust collecting equipment; Other approved methods | A.A.C. R-18-2-702<br>A.A.C. R-18-2-726 | These standards are applicable to any abrasive blasting operation. |
| Spray Painting | Enclosures | A.A.C. R18-2-702<br>A.A.C. R-18-2-727 | This standard is applicable to any spray painting operation. |
| Demolition/renovation operations | N/A | A.A.C. R18-2-1101.A.8 | This standard is applicable to any asbestos related demolition or renovation operations. |

## VI. PREVIOUS PERMIT CONDITIONS

Permit No. 58903 was issued on March 17, 2014, for the continued operation of this facility. Table 3 below illustrates if a section in Permit No. 58903 was revised or deleted.

**Table 3: Permit No. 73431**

| Section No. | Determination | | Comments |
|---|---|---|---|
| | Revised | Delete | |
| Att. A. | X | | General Provisions - Revised to represent most recent template language. |
| Att. B. Condition II.B.4.f | X | | Monitoring, Recordkeeping and Reporting Requirements for Volatile Organic Compounds at the inlet and outlet of the degasser – changed from "… based on a destruction efficiency of no greater than 98%" into "… based on a destruction efficiency of no lower than 98%". |
| Att. B. Condition V and VI | X | | Fugitive Dust Requirements and Other Periodic Activities - Revised to represent most recent template language. |

## VII. MONITORING REQUIREMENTS

**A.** Facility Wide

At the frequency specified in the following sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources.

**B.** Brine degasser, Desiccant Dryers, Coalescers and Compressors, and Associated Flares

1. The Permittee is required to monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame.

2. The Permittee is required to conduct quarterly survey of visible emissions emanating from the flare when in operation using EPA Reference Method 22.

**C.** Gasoline Storage Tank

The Permittee shall, for the gasoline storage tank, maintain a file, of the typical Reid vapor pressure of gasoline stored and of dates of storage.

**D.** Fugitive Dust

1. The Permittee is required to keep record of the dates and types of dust control measures employed.

2. The Permittee is required to show compliance with the opacity standards by having a Method 9 certified observer perform quarterly survey of visible emission from fugitive dust sources. The observer is required to conduct a 6-minute Method 9 observation if the results of the initial survey appear on an instantaneous basis to exceed the applicable standard.

3. The Permittee is required to keep records of the name of the observer, the time, date, and location of the observation and the results of all surveys and observations.

4. The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.

**E.** Periodic Activities

1. The Permittee is required to record the date, duration and pollution control measures of any abrasive blasting project.

2. The Permittee is required to record the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.

3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

## VIII. TESTING REQUIREMENTS

In the second year of permit term, the Permittee is required to conduct a performance test for VOC concentration at the inlet and outlet of the degasser. The Permittee is required to calculate the VOC emissions routed to the flare and demonstrate compliance with VOC limit in the permit based on destruction efficiency of no lower than 98%. The Permittee is required to record and report the results of the performance test for VOC emissions.

## IX. COMPLIANCE HISTORY

This facility received five air quality inspections during the 5-year term of the previous permit (Permit # 58903). One violation was identified on August 10, 2016 and NOC was issued with Case ID # 164428. For this violation it was stated that this facility did not use any controls for the dust emissions, or make any project record with the required information, during an abrasive blast and spray paint project in October 2015. To return to compliance they submitted to ADEQ

DRAFT

an example project record for abrasive blasting projects, which closed this case on September 12, 2016.

## X. LIST OF ABBREVIATIONS

A.A.C. ..... Arizona Administrative Code
ADEQ ..... Arizona Department of Environmental Quality
CO ..... Carbon Monoxide
$NO_x$ ..... Nitrogen Oxide
PTE ..... Potential-to-Emit
TPY ..... Tons per Year
VOC ..... Volatile Organic Compound
yr ..... Year

DRAFT