

**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT NO. 49846**

**I. INTRODUCTION**

This Class II renewal permit is issued to Paramount Petroleum Corporation of Arizona, Inc. for the continued operation of an asphalt base storage and blending facility. This permit is a renewal of permit #37643. This facility is located in Fredonia, Arizona.

**Company Information**

Facility Name: Paramount Petroleum Corporation of Arizona, Inc. - Fredonia Asphalt Terminal

Mailing Address: 1346 HWY 89A, Fredonia, AZ 86022

Facility Location: 1346 HWY 89A, Fredonia, AZ 86022

**II. FACILITY DESCRIPTION**

**Process Description**

Base asphalt stocks are trucked to the facility. The main three products are: paving grade asphalt, emulsified asphalts, and cutback asphalts. Paving grades of asphalt are sold to hot mix asphalt manufacturers, who mix the oil with the aggregate to build roads. Emulsified asphalts are made by 'milling' asphalt, an emulsifying agent, and water. The result is an emulsion of the asphalt (oil) in water that can be sprayed on to road surfaces. Cutback asphalts are made by blending of asphalt with diesel. This enables the material to be shipped at low temperatures and sprayed onto roadways where the diesel evaporates and leaves a continuous layer of asphalt. Products are shipped by loading the asphalt onto trucks at one of the two truck loading racks. This process is supported by four oil heaters rated at 2.12 MMBtu/hr (one) and 2.82 MMBtu/hr (for the other three). The facility has capability to operate for 8,760 hours per year to maintain the stored asphalt at an elevated temperature to ensure pumping capabilities. Two of the oil heaters use propane, one oil heater has the capability of using either propane or diesel, and the fourth oil heater uses only diesel. Besides these oil heaters, there are storage tanks which store asphalt and diesel.

**III. EMISSIONS**

The facility is classified as a 'minor source' pursuant to A.A.C. R18-2-302.B.2. The potential emission rates of the criteria pollutants are not greater than major source thresholds. Table 1 lists the facility wide potential emissions.

**Table 1: Facility-wide Potential Emissions of Regulated Air Pollutants**

<b>Pollutant</b>	<b>Tons per Year</b>
NO <sub>x</sub>	8.94
CO	1.65
SO <sub>2</sub>	10.24
VOC	2.92
PM <sub>10</sub>	0.52

**IV. LEARNING SITES IN VICINITY**

In accordance with ADEQ's Environmental Permits and Approvals Near Learning Sites Policy, the Department conducted an evaluation to determine if any nearby learning sites would be adversely impacted by the facility. Learning sites consist of all existing public schools, charter schools and private schools the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

The Department identified 2 learning sites within a two mile radius of the Paramount Petroleum Corporation of Arizona, Inc. located at 1346 Hwy 89A, Fredonia, AZ 86022.

The Department has reviewed the emission sources at the facility and has determined that the operation of the facility will not adversely affect the learning sites.

**V. COMPLIANCE HISTORY**

No Inspection has been conducted for this facility.

**VI. APPLICABLE REGULATIONS**

The Permittee has identified the applicable regulations that apply to each unit in its permit application. The following Table 2 summarizes the findings of the Department with respect to the regulations that are applicable to each emissions unit.

**Table 2: Applicable Regulations**

<b>Unit ID</b>	<b>Control Equipment</b>	<b>Applicable Regulations</b>	<b>Verification</b>
Oil Heaters	None	<u>A.A.C.</u> R18-2-724.C.1 R18-2-724.B R18-2-724.J	This rule applies to all indirect fire furnaces
Storage Tanks	None	<u>A.A.C.</u> R18-2-730.D R18-2-730.F R18-2-730.G	This rule applies to all storage tanks.
Fugitive Dust sources	Water and other reasonable precautions	<u>A.A.C.</u> R18-2-602 R18-2-604.A & B R18-2-605 R18-2-606 R18-2-607 R18-2-614 R18-2-702.B	The regulations listed are applicable to non point sources.
Abrasive Blasting	Water and enclosure	A.A.C. R-18-2-726	This standard is applicable to any abrasive blasting operation.
Spray painting operations	Enclosed area	A.A.C. R-18-2-727	This standard is applicable to any spray painting operation.
Demolition/renovation operations	-	A.A.C. R18-2-1101.A.8, Subpart M	This standard is applicable to any asbestos related demolition or renovation operations.
Mobile Sources	None	<u>A.A.C.</u> R18-2-801 R18-2-802 R18-2-804	These regulations are applicable to all mobile sources.

## VII. PREVIOUS PERMIT

General Permit #37643 (Boilers) issued to Intermountain Refining Co, Inc was transferred to Paramount Petroleum Corporation of Arizona, Inc.- Fredonia Asphalt through Administrative Amendment #49773. Since there were storage tanks besides the oil heaters, Paramount Petroleum Corporation of Arizona, Inc. was requested to apply for an individual permit for covering the equipment at the facility.

## VIII. PERIODIC MONITORING

### Opacity

#### a. Oil Heaters

The oil heaters are subject to a 15 percent opacity standard. A certified EPA Reference Method 9 observer must conduct a quarterly survey of visible emissions from the stack of the oil heaters. If the opacity appears to be greater than 15 percent the observer must conduct a certified EPA Reference Method 9 observation. The Permittee is required to keep records of the initial observation and any EPA Reference Method 9 observation performed. These records must include the type of observation performed, emission point observed, name of observer, date and time of observation and the result of the observation.

#### b. Fugitive Dust Sources

The fugitive dust and mobile sources are subject to a 40 percent opacity standard. A certified EPA Reference Method 9 observer must conduct a quarterly survey of visible emissions from the fugitive dust sources. The Permittee must keep records of the initial observation and any EPA Reference Method 9 observation performed. These records must include the method used to perform the observation, the name of the observer, date and time of observation and the results of the observation.

## IX. LIST OF ABBREVIATIONS

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
MM Btu/hr	Million British Thermal Units per Hour
CO	Carbon Monoxide
EPA	Environmental Protection Agency
HP	Horse Power
lb/hr	Pound per Hour
NO <sub>x</sub>	Nitrogen Oxides
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Nominally less than 10 Micrometers
SO <sub>2</sub>	Sulfur Dioxide
VOC	Volatile Organic Compound