ADEQ Arizona Department of Environmental Quality

DRAFT TECHNICAL SUPPORT DOCUMENT

TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 63257

MUSKET CORPORATION-KINGMAN

I. INTRODUCTION

This Class II renewal permit is issued to Musket Corporation, the Permittee, for the continued operation of a Bulk Fuel Transfer Terminal located in Kingman, Arizona. This permit renews and supersedes Permit No. 52676.

A. Company Information

1.	Facility Name:	Musket Corporation
2.	Facility Location:	4420 Industrial Blvd. Kingman, Mohave County, AZ 86401
3.	Mailing Address:	P.O. Box 26210 Oklahoma City, OK 73126

B. Attainment Classification

The facility is located in an attainment area for all criteria pollutants.

II. FACILITY DESCRIPTION

A. Process Description

The facility stores, and handles diesel, biodiesel, Jet-A fuel and denatured ethanol products received by rail tank cars. Each 30,000 gallon tank car delivers approximately 27,500 gallons of product. The facility handles 76.7 million gallons per year of biodiesel. Biodiesel is unloaded into a 30,000 barrel fixed roof storage tank and then loaded to trucks for distribution. The facility handles 200 million gallons per year of denatured ethanol. Denatured ethanol is unloaded into a 20,000 barrel internal floating roof tank and then loaded to trucks for distribution. Biodiesel and denatured ethanol are pumped from storage tanks to bulk loading rack, and loaded into bulk tank vehicles for delivery to dispensing stations. For operational flexibility, the facility is permitted to use the internal floating roof storage tank for storing diesel, if required.

The facility also transloads 450 million gallons of diesel and 76.7 million gallons of Jet A fuel per year, among railroad tanker cars and tanker trucks without storing in the tanks, using a 75-HP diesel powered transloader.

The facility is operated 24 hours per day, 365 days per year.

B. Air Pollution Controls

Facility uses air assisted flare while loading denatured ethanol into the trucks to minimize VOC emissions.

III. EMISSIONS

A. Potential to Emit

Facility-wide emission, with use of flare during denatured ethanol loading operations are provided in the table below.

Table 1: Potential Emissions

Pollutant	Storage Tanks	Loading/ Transloding	Flare	Transloader	**Total**
	(tons per year)				
PM	-	-	0.03	0.32	0.35
PM_{10}	-	-	0.03	0.32	0.35
$PM_{2.5}$	-	-	0.03	0.32	0.35
NO_x	-	-	3.86	4.05	7.91
CO	-	-	8.65	2.97	11.62
SO_2	-	-	0.06	0.003	0.06
VOC	1.28	7.83	0.04	0.81	9.96
HAPs	0.002	2.32	0	0.01	2.33

B. Minor NSR Applicability

To determine minor NSR Applicability, Table 2 compares the new PTE with the PTE for current permit (Permit No. 52676).

Table 2 – Comparison of PTE with the previous permit

Pollutant	Previous Permit Emission	New PTE	Change in Emissions
PM	0.07	0.35	0.28
PM_{10}	0.07	0.35	0.28
$PM_{2.5}$	0.07	0.35	0.28
NO_x	28.13	7.91	-20.22
CO	11.07	11.62	0.55
SO_2	0.07	0.06	-0.01
VOC	42.38	9.96	-32.42
HAPs	1.39	2.33	0.94

Permit No. 52676 permitted the facility to build 3 more above ground storage tanks (one 30,000 barrel tank for gasoline and two 20,000 barrel each for diesel). The facility no longer intends to build these tanks and thus these tanks are deleted from the permit. As a result of this change, and change in the product mix, the facility-wide potential to emit

for all the minor NSR pollutants except particulate matter is less than the previous permit. The increase in PTE for particulate matter is less than the permitting exemption threshold, and increase in HAPs emissions is less than the significant threshold. Hence the permit is not subject to minor NSR requirements.

IV. APPLICABLE REGULATIONS

Table 2 displays the applicable requirements

Table 3: Verification of Applicable Regulations

Unit	Control Device	Rule	Verification
Denatured Ethanol Storage Tank	Internal Floating roof	40 CFR 60 Subpart Kb	New Source Performance Standards (NSPS) 40 CFR 60 Subpart Kb is applicable to denatured ethanol storage tanks.
Denatured Ethanol Distribution Bulk Terminal	Flare	40 CFR 63 Subpart BBBBBB 40 CFR 63.11(b) 40 CFR 63 Subpart A 40 CFR 60.502 and 60.503	This National Emission Standards for Hazardous Air Pollutants (NESHAP) for gasoline bulk distribution terminals, 40 CFR 63 Subpart BBBBBB is applicable to the facility when the IFR storage tank and loading racks are used for handling denatured ethanol.
Biodiesel Storage Tank, Transloading operations for Biodiesel, Diesel and Jet A fuel.	N/A	A.A.C. R18-2-730	These requirements for unclassified sources are applicable to biodiesel storage tank, and transloading operations for biodiesel, diesel and Jet A fuel.
Diesel-fired transloader	N/A	A.A.C. R18-2-719 40 CFR 63 Subpart ZZZZ	Existing stationary rotating machinery is subject to requirements under A.A.C. R18-2-719. Existing stationary RICE are also subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) requirements under 40 CFR 63 Subpart ZZZZ.

Unit	Control Device	Rule	Verification
Fugitive dust sources	Water Trucks Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources at the facility.
Mobile Sources	Water Sprays/Water Truck for dust control	A.A.C. R18-2, Article 8	This Article is applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 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 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.
Mobile sources	None	A.A.C. R18-2-801	These are applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization.

V. PREVIOUS PERMIT CONDITIONS

Permit No. 52676 was issued on April 22, 2011, for the continued operation of this facility. Table 4 below illustrates if a section in Permit No. 52676 was revised, kept, or deleted.

Table 4

Condition # in Permit No. 52676	Determination			Comments
	Revised	Keep	Delete	
Attachment "A"	X			General Provisions - Revised to represent most recent template language.

Attachment "B"				
Condition 1.A.1	X			This Condition is revised to include Alternative Method-082 (Digital Camera Operating Technique) for opacity monitoring.
Conditions I.A.2	X			The general operating requirement for operation of all equipment in accordance with vendor-supplied operations and maintenance instructions is retained.
Conditions I.B.1 &2		X		These general monitoring, recordkeeping and reporting requirements are retained.
Section II		X		The requirements for internal floating roof (IFR) storage tank, when used for storing denatured ethanol, are retained.
Section III	X			This Section is revised to delete loading rack and flare requirements as these are addressed in the NESHAP requirements for denatured ethanol storage and loading racks requirements in Section IV of Permit No. 63527.
Section IV		X		This Section for the NESHAP requirements for denatured ethanol storage tanks, loading racks, vapor collection-equipped denatured ethanol cargo tanks (denatured ethanol tank trucks), and flare system for the denatured ethanol loading racks is retained.
Section V		X		Fugitive dust requirements are retained.
Section VI		X		The requirements applicable to mobile sources are retained.
Section VII		X		The requirements for other periodic activities (abrasive blasting, painting and demolition/renovation activities) are retained.

VI. MONITORING AND TESTING REQUIREMENTS

A. The Permittee is required visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with volatile organic liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

B. The Permittee is required to perform inspections on internal floating roof storage tank as required by 40 CFR 60.113b(a). The Permittee is required to keep records of all

inspections performed on the internal floating roof equipped storage tank related to seals, floating roof, fittings etc. If any defects are found during the inspections, the Permittee must report to the Director within 30 days of inspection about the nature of defects, the reasons why it did not meet the specification, and the repairs made.

C. The Permittee shall perform a monthly leak inspection of all equipment in the terminal including vapor collection system, the vapor processing system, and each loading rack handling denatured ethanol for total organic compounds liquid or vapor leaks.

D. The Permittee is required to operate the flare at all times during denatured ethanol loading/transloading operations. The flare pilot flame must be monitored using a thermocouple or an ultraviolet beam sensor, installed in close proximity to the pilot flame. EPA Reference Method 22 shall be used to determine the compliance of flare with the visible emission provisions in the permit. The Permittee is required to conduct a quarterly survey of visible emissions emanating from the flare when in operation. The observation period is 2 hours.. The Permittee is required to keep records of the name of observer, date and time of observation. The results of the observation must be logged every five minutes. If visible emissions exceeding 5-minutes are noted during a 2-hr observation period, the Permittee is required to take immediate corrective actions and log all such actions.

E. For the diesel-operated transloader pump, the Permittee is required to

1. change oil and filter every 1,000 hours of operation or annually, whichever comes first;

2. inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and

3. inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

F. Opacity Monitoring for fugitive dust sources

1. The Permittee is required to show compliance with the opacity standards by having a Method 9 certified observer perform monthly 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.

2. 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 and any corrective action taken to lower the opacity of any emission point and any excess emission reports.

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

G. 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.

H. Mobile Sources

The Permittee is required to keep records of all emission related maintenance performed on the mobile sources.

VII. COMPLIANCE HISTORY

The Facility had 8 inspections including report reviews since the issuance of Permit No. 52676. No case of violation was generated as result of these inspections/report reviews.

VIII. LIST OF ABBREVIATIONS

A.A.C. ..... Arizona Administrative Code
ADEQ ..... Arizona Department of Environmental Quality
CO ..... Carbon Monoxide
HAP ..... Hazardous Air Pollutant
hp ..... Horsepower
IC ..... Internal Combustion
lb ..... Pound
NO_x ..... Nitrogen Oxide
NESHAP ..... National Emission Standards for Hazardous Air Pollutants
NSPS ..... New Source Performance Standards
PM ..... Particulate Matter
PM_{10} ..... Particulate Matter Nominally less than 10 Micrometers
PTE ..... Potential-to-Emit
SO_2 ..... Sulfur Dioxide
TPY ..... Tons per Year
TSP ..... Total Suspended Particulate
USEPA ..... United States Environmental Protection Agency
VCU ..... Vapor Combustion Unit
VOC ..... Volatile Organic Compound
yr ..... Year