



**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT No. 97903**

I. INTRODUCTION

This Class II renewal permit is for the continued operation of Musket Corporation's Winslow Terminal. Permit No. 97903 renews and supersedes Permit No. 71416.

A Class II permit is required for this facility in accordance with Arizona Administrative Code (A.A.C.) R18-2-302.B.2.a. This is because the facility's controlled emissions are greater than permitting exemption thresholds, but lower than major source thresholds.

A. Company Information

Facility Name: Musket - Winslow Terminal
Mailing Address: P.O. Box 26210, Oklahoma City, OK 73126
Facility Location: 1620 Coopertown Road, Winslow, AZ 86047

B. Attainment Classification

This facility is located in Navajo County which is an area that is in attainment for all criteria pollutants.

II. PROCESS DESCRIPTION

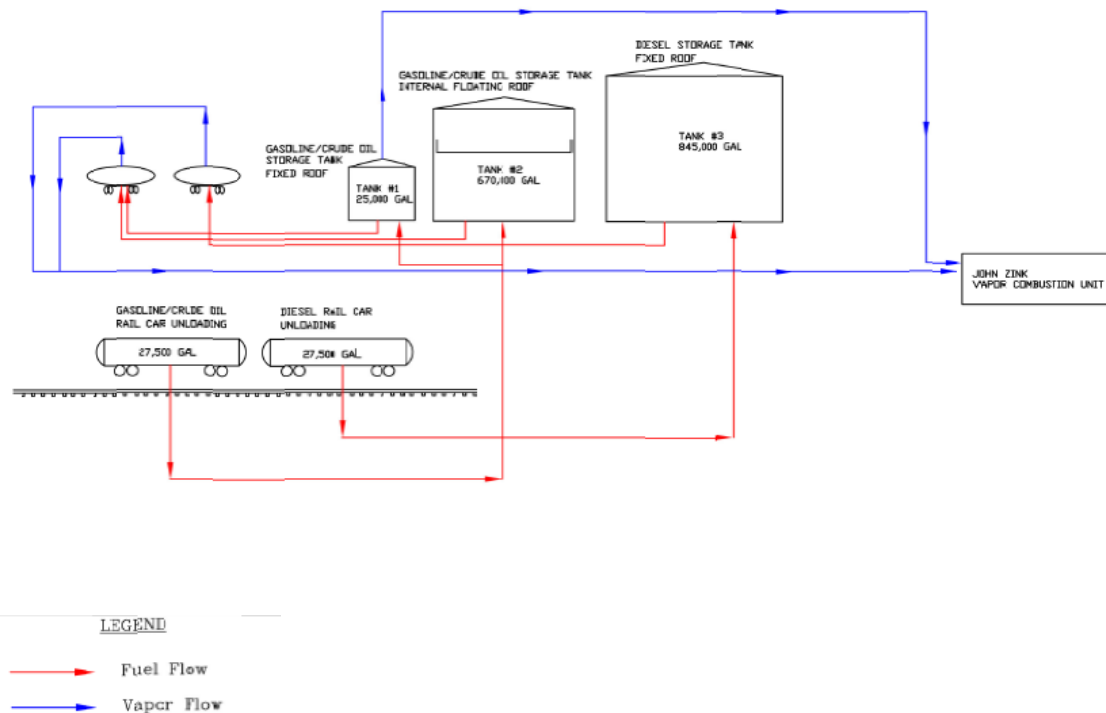
A. Process Equipment

The facility has three fuel storage tanks for storage of gasoline, crude oil, and diesel fuel, as well as a tanker loading facility and vapor combustion unit for destruction of vapors during loading operations. The facility is designed to receive, store, and load 300,000,000 gallons of product per year, including 100,000,000 gallons of gasoline and crude oil combined, and 200,000,000 gallons of diesel fuel. The facility receives products by railcar, each with a capacity of 27,500 gallons. Products are unloaded by 6 pumps at 300 gallons per minute each. The unloaded products are pumped to one of three storage tanks. Tank #1 is a 25,000-gallon tank with a closed vent system that is connected to a vapor combustion unit. Tank #2 is a 670,000-gallon tank equipped with an internal floating roof. Tank #3 is an 845,000-gallon tank with a fixed roof. Four pumps transfer product from the tanks to the trucks for delivery to offsite locations. Vapors displaced from truck loading are collected and piped to the vapor combustion unit. The facility is authorized to operate 24 hours per day, 365 days per year.

B. Control Devices

The facility utilizes a vapor combustion unit flare with a combustion efficiency of 98% to destroy the vapors that escape during the loading of gasoline into the trucks.

C. Process Flow Diagram



III. COMPLIANCE HISTORY

No reporting or compliance deficiencies were noted for this facility since the issuance of Permit No. 70416. The facility has not operated since 2012.

IV. EMISSIONS

Emissions from the storage tanks were calculated using TanksESP. The associated loading volatile organic compound (VOC) emissions were calculated using the TankESP parameter. Loading hazardous air pollutant (HAP) emissions were calculated using TankESP generated vapor mass fractions. The HAP loading losses were calculated using the equation from AP-42: 4-1 (6/20), Chapter 7, Organic Liquid Storage Tanks. The gasoline and diesel loading losses were calculated using the equation from AP-42: 5.2 (6/08), Transportation and Marketing of Petroleum Liquids.

The facility's potential to emit (PTE) is provided in Table 2 below:

Table 1: Potential to Emit (tpy)

Pollutant	Previous PTE	Change in PTE	Current PTE	Permitting Exemption Threshold	Minor NSR Triggered?
NO _x	1.95	0.00	1.95	20	No
PM	0.20	0.00	0.20	N/A	N/A
PM ₁₀	0.20	0.00	0.20	7.5	No
PM _{2.5}	0.13	0.00	0.13	5	No
CO	1.13	0.00	1.13	50	No
SO ₂	0.0008	0.00	0.0008	20	No
VOCs	20.09	+17.76	37.85	20	No
HAPs	1.72	-1.12	0.60	N/A	N/A

V. APPLICABLE REGULATIONS

Table 3 identifies applicable regulations and verification as to why that standard applies. The table also contains a discussion of any regulations the emission unit is exempt from.

Table 2: Applicable Regulations

Unit (Year)	Control Device	Rule	Discussion
Gasoline/Crude oil Storage Tank #1 (2003)	Flare	40 CFR 60 Subpart Kb	This standard is applicable to storage tanks meeting the capacity and vapor pressure applicability requirements.
Gasoline/Crude Oil Storage Tank #2 (2002)	Internal Floating Roof	40 CFR 60 Subpart Kb	This standard is applicable to storage tanks meeting the capacity and vapor pressure applicability requirements.
Gasoline 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	These standards are applicable to existing bulk terminals (gasoline storage tanks, loading racks, and vapor collection-equipped gasoline cargo tanks).
Diesel Storage Tank Tank #3 (2002)	N/A	A.A.C. R18-2-730	These requirements for unclassified sources are applicable to the diesel storage tank.
Flare System (2001)	N/A	A.A.C. R18-2-730	These requirements for unclassified sources are applicable to the flare system.

Unit (Year)	Control Device	Rule	Discussion
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.
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	These standards are applicable to any spray painting operation.
Demolition / Renovation	N/A	A.A.C. R18-2-1101. A.12	This standard is applicable to any asbestos related demolition or renovation operations.

VI. PREVIOUS PERMIT REVISIONS AND CONDITIONS

A. Previous Permit Revisions

Permit No. 71416 was issued on August 28, 2018. No revisions were made during the previous term.

B. Changes to Current Renewal

Table 4 addresses the changes made to the sections and conditions from Permit No. 71416:

Table 4: Previous Permit Conditions

Section No.	Determination			Comments
	Added	Revised	Deleted	
Att. "A"		X		General Provisions: Revised to represent the most recent template language.
Att. "B" Section I		X		Facility-Wide Requirements: Revised to represent the most recent template language.
Att. "B" Section V		X		Fugitive Dust Requirements: Revised to represent the most recent template language.
Att. "B" Section VI			X	Mobile Sources Removed
Att. "C"		X		Equipment List: Revised to reflect the most recent equipment operating at the facility and to include equipment information provided.

VII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

Table 5 contains an inclusive but not an exhaustive list of the monitoring, recordkeeping and reporting requirements prescribed by the air quality permit. The table below is intended to provide insight to the public for how the facility is required to demonstrate compliance with the emission limits in the permit. Records are required be kept for a minimum of 5 years as outlined in Section XII of Attachment “A” of the permit.

Table 5: Permit No. 97903

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Gasoline/Crude Oil Storage Tanks (Tank #2)	VOCs		Inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with volatile organic liquid. 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.	Keep readily accessible records showing the dimension of the storage tank and an analysis showing the capacity of the storage vessel.	Submit a report within 30 days of an inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
Diesel Storage Tank and Loading Racks	PM, VOCs	20% Opacity	A Method 9 observer is required to conduct a monthly survey of visible emissions.	Keep records of the type of observation performed, emission unit, name of observer, date, time of observation, location and	Report each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection. Each report

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
			Design and operate the vapor collection system to prevent any VOC vapors collected at one loading rack from passing to another loading rack. Limit the loading of gasoline/crude oil into only vapor-tight trucks.	the results of the observation.	shall identify the date on which the leak was detected, the date of each attempt to repair the leak, the reasons for the delay of repair and date of successful repair.
Fugitive Dust	PM	40% Opacity	A Method 9 observer is required to conduct a monthly survey of visible emissions.	Record the dates and types of dust control measures employed, and if applicable, the results of any Method 9 observations, and any corrective action taken to lower the opacity of any excess emissions.	
Abrasive Blasting	PM	20% Opacity		Record the date, duration and pollution control measures of any abrasive blasting project.	
Spray Painting	VOC	20% Opacity Control 96% of the Overspray		Maintain records of the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.	

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Demolition / Renovation	Asbestos			Maintain records of all asbestos related demolition or renovation projects including the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents.	

VIII. ENVIRONMENTAL JUSTICE ANALYSIS

The Environmental Protection Agency (EPA) defines Environmental Justice (EJ) to include the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The goal of completing an EJ assessment in permitting is to provide an opportunity for overburdened populations or communities to allow for meaningful participation in the permitting process. Overburdened is used to describe the minority, low-income, tribal and indigenous populations or communities that potentially experience disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards. This renewal does not approve any significant increases in emissions and thus, it will not result in any additional impacts.

IX. LEARNING SITE EVALUATION

In accordance with ADEQ’s Environmental Permits and Approvals near Learning Sites Policy, the Department is required to conduct 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 is issued by ADEQ.

The increase in emissions during this renewal is attributed to the use of TankESP. In addition, the facility’s combustion efficiency was reassessed during the loading and unloading process. Given that there were no changes to any equipment or processes and the fact that the facility has not operated since 2012, a learning site evaluation was not conducted.

X. LIST OF ABBREVIATIONS

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
AERMOD	AMS/EPA Regulatory Model
AERMET	AERMOD Meteorological Preprocessor
AMS	American Meteorological Society
AQD	Air Quality Division
AQRV	Air Quality Related Values
ARM	Ambient Ratio Method
A.R.S.	Arizona Revised Statutes
BACT	Best Available Control Technology
Btu/ft ³	British Thermal Units per Cubic Foot
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	CO ₂ equivalent basis
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
FLM	Federal Land Manager

°F.....	degrees Fahrenheit
ft.....	Feet
g.....	Gram
GHG.....	Greenhouse Gases
HAP.....	Hazardous Air Pollutant
HHV.....	Higher Heating Value
hp.....	Horsepower
hr.....	Hour
IC.....	Internal Combustion
kW.....	Kilowatt
MW.....	Megawatts
MSDS.....	Material Safety Data Sheets
NAAQS.....	National Ambient Air Quality Standard
NESHAP.....	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NO ₂	Nitrogen Dioxide
N ₂ O.....	Nitrous Oxide
NSPS.....	New Source Performance Standards
O ₃	Ozone
Pb.....	Lead
PM.....	Particulate Matter
PM ₁₀	Particulate Matter less than 10 µm nominal aerodynamic diameter
PM _{2.5}	Particulate Matter less than 2.5 µm nominal aerodynamic diameter
PSD.....	Prevention of Significant Deterioration
psia.....	Pounds per square Inch (absolute)
PTE.....	Potential to Emit
sec.....	Seconds
SF ₆	Sulfur Hexafluoride
SIA.....	Significant Impact Area
SIL.....	Significant Impact Level
SO ₂	Sulfur Dioxide Significant Impact Levels
tpy.....	Tons per Year
VOC.....	Volatile Organic Compound
yr.....	Year