State of Utah

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Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-AN117930011-22

August 17, 2022

Bill Kaiser
Savage Services Corporation
2025 East 5000 South
P.O. Box 1001
Price, UT 84501
WilliamKaiser@savageservices.com

Dear Mr. Kaiser:

Re: Approval Order:
Modification to Approval Order DAQE-AN117930009-17 to Allow for Petroleum Products and Magnesium Hydroxide Transloading Operations
Project Number: N117930011

The attached Approval Order (AO) is issued pursuant to the Notice of Intent (NOI) received on July 28, 2021. Savage Services Corporation must comply with the requirements of this AO, all applicable state requirements (R307), and Federal Standards.

The project engineer for this action is **Mr. Enqiang He**, who can be contacted at (801) 556-1580 or ehe@utah.gov. Future correspondence on this AO should include the engineer's name as well as the DAQE number shown on the upper right-hand corner of this letter. No public comments were received on this action.

Sincerely,

Bryce C. Bird
Director

BCB:EH:jg

cc: Southeastern Utah District Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

APPROVAL ORDER
DAQE-AN117930011-22 Modification to Approval Order DAQE-AN117930009-17 to Allow for Petroleum Products and Magnesium Hydroxide Transloading Operations

Prepared By
Mr. Enqiang He, Engineer
(801) 556-1580
ehe@utah.gov

Issued to
Savage Services Corporation - Savage Energy Terminal

Issued On
August 17, 2022

Issued By

Bryce C. Bird
Director
Division of Air Quality

TABLE OF CONTENTS

GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
Savage Services Corporation

Source Name
Savage Services Corporation - Savage Energy Terminal

Mailing Address
2025 East 5000 South
P.O. Box 1001
Price, UT 84501

Physical Address
2025 East 5000 South
Price, UT 84501

Source Contact
Name Bill Kaiser
Phone (801) 424-7272
Email WilliamKaiser@savageservices.com

UTM Coordinates
519,150 m Easting
4,375,880 m Northing
Datum NAD83
UTM Zone 12

SIC code 5171 (Petroleum Bulk Stations & Terminals)

SOURCE INFORMATION

General Description
Savage Services Corporation (Savage) operates the Savage Energy Terminal located in Price in Carbon County. Savage operates terminals to transload coal and crude oil. Coal is trucked in, crushed, screened, stored in piles and transloaded to railcars. Crude oil is transloaded via submerged loading with a vapor balance line using mobile transfer racks that pump crude oil between trucks and railcars. Annual coal and crude oil transloaded are 7 million tons and 4.38 million bbls, respectively.

NSR Classification
Minor Modification at Minor Source

Source Classification
Located in Attainment Area
Carbon County
Airs Source Size: B

Applicable Federal Standards
NSPS (Part 60), A: General Provisions
NSPS (Part 60), Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
NSPS (Part 60), Y: Standards of Performance for Coal Preparation and Processing Plants
MACT (Part 63), A: General Provisions
MACT (Part 63), ZZZZ: National Emissions Standards for Hazardous Air Pollutants for

Stationary Reciprocating Internal Combustion Engines
MACT (Part 63), CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
Title V (Part 70) Area Source

Project Description
Savage has requested a modification to allow petroleum products transloading on site. Vapor pressures for the petroleum products transloaded shall be limited to 2 psia. Throughput shall remain unchanged at 4,380,000 bbls as previously permitted exclusively for crude oil loading. The existing vapor filtration system and loading racks will be used for the petroleum products loading operations. Savage has also requested an additional service to pneumatically load magnesium hydroxide at 12,000 tpy. This new service shall include a baghouse to control emissions from the operations and an electric blower to blow the product. In addition, Savage will reduce throughput for coal loading from 9,500,000 to 7,000,000 tpy, and remove potash transloading operations.

SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
CO_2 Equivalent	0	6386.00
Carbon Monoxide	0	4.35
Nitrogen Oxides	0	9.24
Particulate Matter - PM_{10}	2.76	45.15
Particulate Matter - $PM_{2.5}$	-0.38	5.82
Sulfur Dioxide	0	0.28
Volatile Organic Compounds	63.13	70.41

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Benzene (Including Benzene From Gasoline) (CAS #71432)	380	580
Hexane (CAS #110543)	9220	10120
Toluene (CAS #108883)	120	200
Xylenes (Isomers And Mixture) (CAS #1330207)	-10	50
	Change (TPY)	**Total (TPY)**
Total HAPs	4.69	5.48

SECTION I: GENERAL PROVISIONS

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]

I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]
I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]
I.8	The owner/operator shall submit documentation of the status of construction or modification to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

SECTION II: PERMITTED EQUIPMENT

II.A THE APPROVED EQUIPMENT

II.A.1	**Savage Energy Terminal**
II.A.2	**Four (4) Coal Truck Unloading Facilities** Control: Enclosed receiving hoppers equipped with water sprays
II.A.3	**Five (5) Stacking Tubes** With associated coal stockpiles
II.A.4	**Two (2) Radial Stackers** Control: Covered
II.A.5	**One (1) Sampling Crusher** Capacity: 2 tph Control: Enclosed in building
II.A.6	**Two (2) Underpile Reclaim Systems**
II.A.7	**One (1) Underground Reclaim**

II.A.8	**One (1) Wash Plant** With associated conveyor
II.A.9	**One (1) Radial Conveyor** 36" X 100' Radial stock conveyor Control: Covered
II.A.10	**One (1) Belt Conveyor** 36" X 150' conveyor to load out belt Control: Covered
II.A.11	**One (1) Silo** Capacity: 10,000 tons Control: Enclosed extendable chute for railcar loading
II.A.12	**Three (3) Diesel Fuel Tanks** Capacity: Less than 42,000 gallons each
II.A.13	**Three (3) Storage Tanks** Capacity: One (1) 10,000 gal; Two (2) 20,000 gal Contents: Antifreeze -Listed for informational purposes only-
II.A.14	**One (1) Gasoline Fuel Dispensing Station** Gravity Fed Capacity: 500 gallons MACT Applicability: Subpart CCCCCC
II.A.15	**Four (4) Oil Transloading Racks** Rating: 260 bbl/hr
II.A.16	**Four (4) Condensate Collectors** Capacity: 5 gal (each)
II.A.17	**Four (4) Vapor Capture Systems** Activated-Carbon (55 gal each)
II.A.18	**One (1) Generator** Rating: 350 hp Fuel: Diesel MACT Applicability: Subpart ZZZZ
II.A.19	**One (1) Boiler** Capacity: 10.5 MMBtu/hr Fuel: Natural Gas NSPS Applicability: Subpart Dc
II.A.20	**Haul Roads** Control: Water sprayed and chemically treated
II.A.21	**Mobile Loading Conveyors** *Listed for informational purposes
II.A.22	**Magnesium Hydroxide Pneumatic Transloading** One (1) electric blower (for information only) and (1) baghouse

SECTION II: SPECIAL PROVISIONS

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**Site-Wide Requirements**
II.B.1.a	The owner/operator shall not allow visible emissions from the following emission points to exceed the following values: A. All crushers - 15% opacity B. All screens - 10% opacity C. All conveyor transfer points - 10% opacity D. All diesel engines - 20% opacity E. Conveyor drop points - 10% opacity F. Silo - 10% opacity G. All baghouses - 10% opacity H. All other points - 20% opacity [R307-401]
II.B.1.b	Opacity observations of emissions from stationary sources shall be conducted while in operation in accordance with 40 CFR 60, Appendix A, Method 9. [R307-401-8]
II.B.2	**Coal Transloading Requirements**
II.B.2.a	The owner/operator shall not produce more than the following: A 7,000,000 tons of total coal throughput per rolling 12-month period B 1,000,000 tons of coal processed (crushed and screened) per rolling 12-month period. [R307-401]
II.B.2.a.1	The owner/operator shall: A. Determine the coal throughput with truck scales B. Determine the coal processed (crushed and screened) by supervisor monitoring of an operations log C. Record the coal throughput and coal processed (crushed and screened) each day D. Calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months E. Keep all the records for all periods when the plant is in operation. [R307-401-8]

II.B.3	**Coal Transfer and Crushing Requirements**
II.B.3.a	The owner/operator shall enclose the following transfer points: A. Each conveyor transfer or drop point B. Reclaim conveyor from the primary coal stockpile to the stacking tube C. All wash plant with associated screens, crushers and conveyors [R307-401]
II.B.3.b	The owner/operator shall cover all above-ground conveyors. All reclaim points for the primary coal storage shall be beneath the stockpile. [R307-401]
II.B.3.c	The owner/operator shall operate water sprays and/or chemical treatment to control fugitive dust emissions from storage piles. Water sprays and/or chemical treatment shall operate as necessary to prevent visible emissions from exceeding the opacity limits listed in this AO. [R307-401]
II.B.3.c.1	Records of water or chemical treatment shall be kept for all periods when the plant is in operation. [R307-401-8]
II.B.3.d	The owner/operator shall install and operate water sprays or chemical dust suppression sprays at the following points to control fugitive emissions: A. All crushers B. All screens The sprays shall operate as necessary to prevent visible emissions from exceeding the opacity limits listed in this AO. [R307-401]
II.B.3.e	The owner/operator shall control the disturbed or stripped areas at all times (24 hours per day every day) for the duration of the project/operation until the area is reclaimed. Areas disturbed during construction of the facility and not subjected to repeated disturbance shall be revegetated. Repeatedly disturbed areas shall be chemically treated or water sprayed as necessary to prevent visible emissions from exceeding the opacity limits listed in this AO. [R307-401]
II.B.3.f	In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18 and Subpart Y, 40 CFR 60.250 to 60.254 (Standards of Performance for Coal Preparation Plants) apply to this installation. The owner/operator must operate in accordance with the most current version of 40 CFR 60 applicable to this source. The following emission points are subject to Subpart Y: A. All crushers (above ground) B. All screens (above ground) C. All conveyors (above ground) D. Storage silo stack. [40 CFR 6060.250 to 60.254]

II.B.4	**Petroleum Products Transloading Requirements**
II.B.4.a	The owner/operator shall not transload more than 4,380,000 barrels of all petroleum products combined per rolling 12-month period. [R307-401]
II.B.4.a.1	The owner/operator shall: A. Determine the petroleum products throughput with truck scales B. Record the throughput of petroleum products each day C. Calculate a new 12-month total by the 20th day of each month using data from the previous 12 months D. Keep the petroleum products throughput records for all periods when the facility is in operation. [R307-401-8]
II.B.4.b	The owner/operator shall not transload any petroleum products with a true vapor pressure greater than 2.0 psia. [R307-401-8]
II.B.4.b.1	The owner/operator shall keep and maintain records of true vapor pressures of all petroleum products transloaded on site. The records shall be kept for all periods when the facility is in operation. [R307-401-8]
II.B.5	**Vapor Balance and Carbon Capture Requirements**
II.B.5.a	During rail car loading of petroleum products, the owner/operator shall rout vapors from the pressure balance lines to the vapor capture systems equipped with carbon capture barrels prior to venting to the atmosphere. [R307-401-8]
II.B.5.b	The owner/operator shall maintain the carbon canisters per the manufacture specifications and replace the carbon canisters using the colorimetric breakthrough detector in accordance with the manufacturer's recommendations. [R307-401-8]
II.B.5.b.1	Records of each carbon canister replacement shall be kept on site for all times the plant is in operation. Canister replacement records shall record the date of replacement and the reason, and shall be kept in an operations log maintained by the operator. [R307-401-8]
II.B.6	**Magnesium Hydroxide Transloading Requirements**
II.B.6.a	The owner/operator shall not transload more than 12,000 tons of magnesium hydroxide per rolling 12-month period. [R307-401-8]
II.B.6.a.1	The owner/operator shall: A. Determine amount of magnesium hydroxide transloaded with truck scales B. Record amount of magnesium hydroxide transloaded each day C. Calculate a new 12-month total by the 20th day of each month using data from the previous 12 months D. Keep all records when the plant is in operation. [R307-401-8]

II.B.6.b	The owner/operator shall use a baghouse to control air streams from the magnesium hydroxide transloading process. All air streams from the process shall vent to the baghouse before being vented to the atmosphere. [R307-401-8]
II.B.7	**Haul Road Requirements**
II.B.7.a	The owner/operator shall prevent visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas from exceeding 20% opacity. [R307-205]
II.B.7.a.1	Visible emissions determinations for fugitive sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Director or the Director's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made at a point not less than one half the vehicle length behind the vehicle and not less than one half the height of the vehicle. The accumulated six readings shall be averaged for the compliance value. [R307-205]
II.B.7.b	The owner/operator shall water flush or broom sweep the paved haul roads as necessary to prevent visible emissions from exceeding the opacity limits listed in this AO. [R307-401-8]
II.B.7.b.1	Records of water flushing and/or sweeping shall be kept for all periods when the plant is in operation. The records shall include the following items: A. Date of water flushing and/or sweeping B. Number of sweeping and quantity of water used C. Rainfall received, if any, and approximate amount D. Time of day water flushing and/or sweeping were made E. Records of temperature if the temperature is below freezing. [R307-401-8]
II.B.7.c	The owner/operator shall water spray or chemically treat all unpaved roads and other unpaved operational areas that are used by mobile equipment to control fugitive dust. Water spray and chemical treatment shall be of sufficient frequency and quantity to prevent visible emissions from exceeding the opacity limits in this AO unless it is below freezing (32 degrees F). [R307-401]
II.B.7.c.1	Records of water or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items: A. Date of treatment B. Number of treatments made, dilution ratio, and quantity C. Rainfall received, if any, and approximate amount D. Time of day treatments were made E. Records of temperature if the temperature is below freezing. [R307-401-8]

II.B.8	**Generator Engine Requirements**
II.B.8.a	The owner/operator shall use only diesel as a fuel source in the generator. [R307-401-8]
II.B.8.b	The owner/operator shall not operate the generator engine for more than 500 hours per rolling 12-month period. [R307-401-8]
II.B.8.b.1	Records documenting generator usage shall be kept in a log for each usage, showing the following: A. Date of use B. The duration in hours C. Reason for use [R307-401-8]
II.B.8.b.2	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. [R307-401-8]

PERMIT HISTORY

This Approval Order shall supersede (if a modification) or will be based on the following documents:

Supersedes	AO DAQE-AN117930009-17 dated June 21, 2017
Incorporates	NOI dated July 28, 2021
Incorporates	Additional information dated September 7, 2021
Incorporates	Additional information dated September 10, 2021
Incorporates	Additional information dated November 18, 2021
Incorporates	Additional information dated February 8, 2022
Incorporates	Additional information dated April 19, 2022

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by Environmental Protection Agency to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - Title 40 of the Code of Federal Regulations Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal Division of Air Quality use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - Title 40 of the Code of Federal Regulations 52.21 (b)(49)(i)
GWP	Global Warming Potential - Title 40 of the Code of Federal Regulations Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds