



State of Utah

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Governor

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Department of Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
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Director

DAQE-IN143260010-24

November 21, 2024

Jonathan Lovell
Sawtooth Caverns, LLC
6965 South Union Park Center #270
Midvale, UT 84047
Jonathan.Lovell@sawtoothcaverns.com

Dear Mr. Lovell:

Re: Intent to Approve: Modification to Approval Order to DAQE-AN143260009-23 to Update
Equipment List and Increase Throughput
Project Number: N143260010

The attached document is the Intent to Approve (ITA) for the above-referenced project. The ITA is subject to public review. Any comments received shall be considered before an Approval Order (AO) is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Future correspondence on this ITA should include the engineer's name, **Dylan Frederick**, as well as the DAQE number as shown on the upper right-hand corner of this letter. Dylan Frederick, can be reached at (385) 306-6529 or dfrederick@utah.gov, if you have any questions.

Sincerely,

Alan D. Humpherys, Manager
New Source Review Section

ADH:DF:jg

cc: Central Utah Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

INTENT TO APPROVE
DAQE-IN143260010-24
Modification to Approval Order to DAQE-AN143260009-23 to
Update Equipment List and Increase Throughput

Prepared By
Dylan Frederick, Engineer
(385) 306-6529
dfrederick@utah.gov

Issued to
Sawtooth Caverns, LLC - Sawtooth NGL Storage Facility

Issued On
November 21, 2024

A handwritten signature in black ink, appearing to read "Alan D. Humpherys".

New Source Review Section Manager
Alan D. Humpherys

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GENERAL INFORMATION**CONTACT/LOCATION INFORMATION****Owner Name**

Sawtooth Caverns, LLC

Source Name

Sawtooth Caverns, LLC - Sawtooth NGL Storage Facility

Mailing Address6965 South Union Park Center #270
Midvale, UT 84047**Physical Address**9650 North 540 East
Delta, UT 84624**Source Contact**Name: Jonathan Lovell
Phone: (435) 979-2599
Email: Jonathan.Lovell@sawtoothcaverns.com**UTM Coordinates**365,044 m Easting
4,372,053 m Northing
Datum NAD83
UTM Zone 12**SIC code** 4226 (Special Warehousing & Storage, NEC)**SOURCE INFORMATION****General Description**

Sawtooth Caverns, LLC (Sawtooth) operates the Sawtooth Storage Facility near Delta, Utah. The Sawtooth Storage Facility receives refined products from trucks and railcars and stores refined products in multiple underground salt caverns. Equipment includes pipelines, four refined products storage vessels (tanks), and four additive and waste tanks. The Sawtooth Storage Facility allows refined products to be stored in the salt caverns. The products will be moved only by pipeline, truck, and railcar.

NSR Classification

Minor Modification at Minor Source

Source ClassificationLocated in Attainment Area
Millard County
Airs Source Size: B**Applicable Federal Standards**

NSPS (Part 60), A: General Provisions
NSPS (Part 60), Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
NSPS (Part 60), XX: Standards of Performance for Bulk Gasoline Terminals
NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
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), BBBB: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities

Project Description

Sawtooth has requested to add two 2,000-bbl ethanol or refined products storage tanks and four 50,000-bbl refined products storage tanks. The application included the fugitive emissions from the new tanks. Sawtooth has also requested to increase the loading rack throughput from 10,000 bbls/day to 60,000 bbls/day. This limit will be updated as an annual limit on gallons of fuel loaded. The limit for gasoline, additive, and diesel fuel loading has been requested to be combined into one limit. Emissions for fuel loading were calculated using the most volatile material (gasoline) to allow for the limits for each fuel type to be combined. Finally, the fugitive PM emissions have been updated for increased haul road traffic.

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	4917	7752.00
Carbon Monoxide	13.63	18.09
Nitrogen Oxides	1.80	3.98
Particulate Matter - PM ₁₀	1.87	4.59
Particulate Matter - PM _{2.5}	0.16	0.54
Sulfur Dioxide	-0.04	0.01
Volatile Organic Compounds	38.48	69.56

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
2,2,4-Trimethylpentane (CAS #540841)	1905	2365
Benzene (Including Benzene From Gasoline) (CAS #71432)	586	666
Ethyl Benzene (CAS #100414)	1140	1300
Generic HAPs (CAS #GHAPS)	-1900	280
Hexane (CAS #110543)	936	1056
Toluene (CAS #108883)	5731	6531
Xylenes (Isomers And Mixture) (CAS #1330207)	5687	6487
	Change (TPY)	Total (TPY)
Total HAPs	7.04	9.34

PUBLIC NOTICE STATEMENT

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Director.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Millard County Chronicle Progress on November 27, 2024. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

SECTION I: GENERAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

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 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]
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SECTION II: PERMITTED EQUIPMENT

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.A THE APPROVED EQUIPMENT

II.A.1	Sawtooth NGL Storage Facility
II.A.2	Emergency Generator Engine Rating: 144 hp Fuel: Diesel Manufacturer Date: 2016 Installation Date: 2016 NSPS Applicability: 40 CFR 60 Subpart IIII MACT Applicability: 40 CFR 63 Subpart ZZZZ
II.A.3	Evaporation Ponds
II.A.4	Degassifier Vessel used to degas brine. Released gases controlled by integrated enclosed combustor.
II.A.5	Rail/Truck Loading and Unloading Equipment
II.A.6	Piping Fugitives Gasoline and diesel pipeline fugitive emission points, including: electric product pumps, pipeline connectors (flanges, valves, connectors), and ancillary equipment (pig launching and receiving equipment)
II.A.7	One Refined Fuel Loading Rack Capacity: 60,000 bbls per day Control: Vapor Combustion Unit MACT Applicability: Subpart BBBB NSPS Applicability: Subpart XX
II.A.8	Vapor Combustion Unit Rating: 40 MMBtu/hr Supplemental Fuel: Propane Controls: Refined Fuel/Ethanol Loading Racks NSPS Applicability: Subpart XX
II.A.9	Four Refined Product Storage Tanks RP T-004, RP T-005, RP T-006, RP T-007 Capacity: 1,000 bbls each Control: Internal floating roof NSPS Applicability: Subpart Kb

II.A.10	Two Ethanol/Gasoline/Diesel Tanks (NEW) RP T-008 and RP T-009 Capacity: 1,000 bbl each Controls: Internal Floating Roof NSPS Applicability: Subpart Kb
II.A.11	Four Refined Products Tanks (NEW) RP T-010, RP T-011, RP T-012, RP T-013 Capacity: 50,000 bbl each Controls: Internal Floating Roof NSPS Applicability: Subpart Kb
II.A.12	One Butane Vaporizer Rating: 2.53 MMbtu/hr Fuel: Propane
II.A.13	Four Ethanol Railcar Unloading Points Control: Vapor Combustion Unit
II.A.14	Miscellaneous Storage Tanks One fixed roof tank for storage of tank bottoms Three fixed roof tanks for storage of fuel additives Seventeen pressurized storage tanks One wastewater tank

SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	Site-wide Requirements
II.B.1.a	Unless otherwise specified in this AO, the owner/operator shall not allow visible emissions to exceed the following opacity limits: A. Diesel-fired emergency generators and fire pump engine - 20% B. Haul roads - 20% C. Degassifier combustor and the vapor combustion unit shall operate with no visible emissions D. All other points - 10%. [R307-401-8]
II.B.1.a.1	Unless otherwise specified in this AO, opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-401-8]

II.B.1.a.2	Visible fugitive dust emission determinations 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. Visible emissions shall be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle. [R307-401-8]
II.B.1.a.3	Visual determination of emissions from the combustor and vapor combustion unit shall be conducted according to 40 CFR 60, Appendix A, Method 22. [R307-401-8]
II.B.1.b	The owner/operator shall conduct visual inspections of each internal floating roof storage tank according to the methods and procedures specified in 40 CFR 60.113b(a). [40 CFR 60 Subpart Kb]
II.B.1.b.1	The owner/operator shall keep and maintain records of initial visual inspections of each internal floating roof storage tank for the life of the equipment. [40 CFR 60 Subpart Kb]
II.B.2	Loading Requirements
II.B.2.a	The owner/operator shall not load more than 922,861,668 gallons of refined fuel per rolling 12-month period. Refined fuel means gasoline, jet fuel, diesel fuel, or fuel additives. [R307-401-8]
II.B.2.a.1	The owner/operator shall: A. Determine fuel loading volume by examination of company and/or customer billing records B. Record fuel loading on a daily basis C. Use the fuel loading record to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months. [R307-401-8]
II.B.2.b	The owner/operator shall route all vapors from the refined fuel/ethanol loading racks through the vapor combustion unit prior to venting to the atmosphere. [R307-401-8]
II.B.2.c	The owner/operator shall route all gasoline vapors displaced from tank trucks and railcars during product loading through the vapor combustion unit before venting to the atmosphere. [40 CFR 60 Subpart XX, R307-401-8]
II.B.3	Brine Ponds Requirements
II.B.3.a	The owner/operator shall not extract more than 16,000,000 bbls of brine from the caverns per rolling 12-month period. [R307-401-8]

II.B.3.a.1	To determine compliance with a rolling 12-month total, the owner/operator shall: A. Calculate a new 12-month total using data from the previous 12 months B. Determine the volume of extracted brine using monthly NGL throughput data C. Keep records of extracted brine for all periods when the plant is in operation D. Record volume of extracted brine on a monthly basis. [R307-401-8]
II.B.4	Combustor and Vapor Combustion Unit Requirements
II.B.4.a	The degassifier combustor and the vapor combustion unit shall be equipped with an operational auto-igniter. [R307-401-8]
II.B.4.b	The degassifier combustor shall be limited to 500 hours of downtime per rolling 12-month period for inspection, maintenance, and repair. No fluids shall be present in the degassifier during periods of flare downtime. [R307-401-8]
II.B.4.b.1	The owner/operator shall: A. Determine hours of downtime by monitoring and maintaining an operation log B. Record downtime in a monthly operator log C. Use records to calculate a new rolling 12-month total each month using data from the previous 12 months. [R307-401-8]
II.B.5	Engine Requirements
II.B.5.a	The owner/operator shall not operate each emergency engine on site for more than 100 hours per rolling 12-month period during non-emergency situations. There is no time limit on the use of the emergency generator engines during emergencies. [R307-401-8]
II.B.5.a.1	To determine compliance with the calendar year engine requirement, the owner/operator shall calculate total yearly use by the 20th day of January using data from the previous 12 months. To determine compliance with the rolling 12-month total, the owner/operator shall calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months. Records documenting the operation of the engines shall be kept in a log and shall include the following: A. The date the engines were used; B. The duration of operation each day in hours; and C. The reason for the emergency generator engine usage. [R307-401-8]
II.B.5.b	Records of hours of operation shall be determined by installing a non-resettable hour meter for the engines. [R307-401-8]

II.B.5.c	The owner/operator shall only use diesel fuel (fuel oil #1, #2, or diesel fuel oil additives) in the emergency generator engines and the fire pump engine. All diesel burned shall meet the requirements of 40 CFR 80.510(c). [40 CFR 60 Subpart IIII]
II.B.5.c.1	To demonstrate compliance with the fuel oil requirements, the owner/operator shall keep and maintain fuel purchase invoices. The fuel purchase invoices shall indicate that the diesel fuel meets the ultra-low sulfur diesel requirements, or the owner/operator shall obtain certification of sulfur content from the fuel supplier. [40 CFR 60 Subpart IIII]
II.B.6	Monitoring Requirements of Fugitive Emissions (Leak Detection and Repair)
II.B.6.a	The owner/operator shall develop a fugitive emissions monitoring plan. At a minimum, the plan shall include: A. Monitoring frequency. For equipment in gasoline service, the monitoring frequency shall be no less than monthly as per 40 CFR 63 Subpart BBBB B. Monitoring technique and equipment C. Monitoring for "difficult-to-monitor" and "unsafe-to-monitor" components D. Procedures and time frames for identifying and repairing leaks E. Record keeping practices F. Calibration and maintenance procedures. [40 CFR 63 Subpart BBBB, R307-401-8]
II.B.6.a.1	Monitoring shall be conducted according to the following schedule: A. No later than 60 days from the date of the final installation B. Annually after the initial monitoring survey C. Monthly for equipment in gasoline service D. As required by the owner/operator's monitoring plan for "unsafe-to-monitor" components. [40 CFR 63 Subpart BBBB, R307-401-8]
II.B.6.b	If fugitive emissions are detected at any time, the owner/operator shall repair the fugitive emissions component as soon as possible but no later than 30 calendar days after detection (15 days for equipment in gasoline service). If the repair or replacement is technically infeasible without a process unit shutdown, the repair or replacement must be completed after an unscheduled, planned, or emergency unit shutdown or within 24 months, whichever is earlier. [40 CFR 63 Subpart BBBB, R307-401-8]
II.B.6.b.1	The owner/operator shall resurvey the repaired or replaced fugitive emissions component no later than 30 calendar days after the fugitive emissions component was repaired. [R307-401-8]
II.B.6.c	The owner/operator shall maintain records of the fugitive emissions monitoring plan, monitoring surveys, repairs, and resurveys. [R307-401-8]

II.B.7	Haul Road and Fugitive Dust Requirements
II.B.7.a	All unpaved roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust when the ambient temperature is above freezing. Treatments shall be of sufficient frequency and quantity to meet the opacity limits listed in this AO, or as determined necessary by the Director. [R307-401-8]
II.B.7.a.1	Records of water/chemical treatment shall be kept for all periods when the facility is in operation. The records shall include the following items: A. Date of treatment; B. Number of treatments made; and C. Records of temperature if the temperature is below freezing. [R307-401-8]
II.B.7.b	Water/chemical treatment and opacity requirements for haul roads only apply to roads exclusive to and located within the Sawtooth NGL Storage Facility leased property. Roads located on SITLA or Magnum easements are not subject to the requirements of this AO. [R307-401-8]

PERMIT HISTORY

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

Supersedes	AO DAQE-AN143260009-23 dated March 10, 2023
Is Derived From	NOI dated April 2, 2024
Incorporates	Additional Information dated June 27, 2024
Incorporates	Additional Information dated September 20, 2024
Incorporates	Additional Information dated September 26, 2024
Incorporates	Additional Information dated October 8, 2024

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 ₂ e	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