BAY AREA AIR QUALITY MANAGEMENT DISTRICT
BAAQMD
Engineering Division
375 Beale Street, Suite 600
San Francisco, CA 94105

Instructions: Organic Liquid Storage Tank Form

Introduction

Use the following instructions to help guide you through the ***Organic Liquid Storage Tank form.***

Who should use this form?

This form should be submitted with new permit applications and applications to modify or alter existing sources. One form should be submitted for each storage tank being permitted.

The Organic Liquid Storage Tank form is for tanks that store material containing organics. Do not use this form for inorganic materials or for Gasoline Dispensing Facilities.

Facility Information

- **BAAQMD Facility ID –** The facility ID number is available on any permit or invoice issued by BAAQMD. This can be found in the upper right of the permit or the invoice.
  - If this application is for a new facility (not currently permitted by BAAQMD), you must also submit *Facility Creation Form* and *Facility Contacts Form.*

General Information

- **BAAQMD Device ID –** For existing facilities, the device ID number can be found on the Permit to Operate to the left of the device name (for example: **S1** Organic Liquid Storage Tank).
- **Device/Operation Name –** This is the name you associate with this operation.
- **Initial/Proposed Date of Operation:**
  - For new construction, enter the date that you propose will be the initial date of operation.
  - For a modification of an existing permitted operation, enter the date that you propose the changes to occur.
  - For an existing operation that is not currently permitted by BAAQMD, enter the date for which the facility initially operated.
- **Device/Operation Description –** This is your description of the device or operation. This field can be used to distinguish it from other similar devices (e.g. ID numbers, location, make, model, etc.)

Tank Information

Several questions or even full sections only need to be filled out if applicable to the tank identified in section 3. Not everything on this form will be completed.

Section 10 applies to Floating Roof Tanks only and requests information on the deck fitting types used. See Table A for a list of options for Fitting Type and Fitting Construction Detail. If more than 2 fitting types are used, submit the additional information on a separate sheet of paper.

Required Documents

Please attach a copy of detailed results from TANKS Emissions Estimation Software.

Material Usage

See Tables B and C for lists of emission factor basis codes and material codes.

Still need help?

Contact the Engineering Division: (415) 749-4990
permits@baaqmd.gov

An electronic version of this form and instructions can be found at www.baaqmd.gov.

Revised 02/2025

Bay Area Air Quality Management District
ORGANIC LIQUID STORAGE TANK FORM

Use one form for each storage tank. Do not combine multiple tanks on a single form.
All fields are required unless otherwise noted. Please type or print.

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Mail to: BAAQMD
Engineering Division
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1. Facility Information

Facility Name	BAAQMD Facility ID (Existing facilities only)
Facility Address (Street address and city)	

2. General Information

BAAQMD Device ID (If applicable)

Device/Operation Name	Initial/Proposed Date of Operation
Device/Operation Description	

3. Tank Type

Select the type of tank:

- ◯ Domed External Floating Roof Tank
- ◯ External Floating Roof Tank
- ◯ Fixed Roof Tank
- ◯ Internal Floating Roof Tank
- ◯ Pressure Tank
- ◯ Variable Vapor Space Tank

4. Tank Characteristics – Fill out any applicable sections

Is the orientation of this tank horizontal or vertical?: ◯ Horizontal ◯ Vertical

Is the tank underground or aboveground?: ◯ Underground ◯ Aboveground

Shell Length	Shell Diameter (Required for All Tanks)	Tank Volume (Required for All Tanks)
ft	ft	thou gal

Max Liquid Height (Fixed Roof Tanks only)	Average Liquid Height	Lowest Initial Boiling Point of all Materials Stored
ft	ft	°F

Is the tank heated?: ◯ Yes ◯ No

Is the tank insulated?: ◯ Yes ◯ No

Tank Fill Type: ◯ Bottom/submerged ◯ Part splash/part submerged ◯ Splash fill

Maximum Fill Rate	Maximum Withdrawal Rate	Turnovers Per Year
gal/hr	gal/hr	

Volume Expansion Capacity (Variable Vapor Space Tanks only)	Highest Head Space Reactivity (Fixed Roof Tanks only)
cu ft	%

Do all gauging/sampling devices have gas-tight covers?: ◯ Yes ◯ No

5. Roof Characteristics – Fill out any applicable sections

What is the tank roof color?: _____

Select the tank roof shade:

- ◯ Dark
- ◯ Diffuse
- ◯ Light
- ◯ Medium
- ◯ Primer
- ◯ Rust
- ◯ Specular
- ◯ Unpainted

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What condition is the roof paint in?: ◯ Good ◯ Poor

Select the Roof Type (Fixed or Floating Roof Tanks only):

◯ Fixed Roof - Cone ◯ Floating Roof - Buoyant Panel ◯ Floating Roof - Pontoon
◯ Fixed Roof - Dome ◯ Floating Roof - Pan Double Deck

Height (Fixed Roof Tanks only)	Radius (Dome-Shaped Fixed Roof Tanks only)
ft	ft

Is the emergency roof drain at least 90% covered? (Floating Roof Tanks only): ◯ Yes ◯ No

6. Shell Characteristics – Fill out any applicable sections

What is the tank shell color?: _____

Select the tank shell shade:

◯ Dark ◯ Light ◯ Primer ◯ Specular
◯ Diffuse ◯ Medium ◯ Rust ◯ Unpainted

What condition is the shell paint in?: ◯ Good ◯ Poor

Internal shell condition (Floating Roof Tanks only): ◯ Dense Rust ◯ Light Rust

Does the shell have a self-supporting roof? (Internal Floating Roof Tanks only): ◯ Yes ◯ No

Number of Columns for Tank Roof Support (Internal Floating Roof Tanks only): _____

Effective Column Diameter (Internal Floating Roof Tanks only): _____ ft

Shell Construction (Fixed or Floating Roof Tanks only): ◯ Gunited ◯ Riveted ◯ Welded

7. Rim Seal System – Floating Roof Tanks only

Select the primary seal type:

◯ Flexible Wiper ◯ Mechanical Shoe ◯ Other
◯ Liquid Mounted Resilient Filled ◯ Vapor Mounted Resilient Filled ◯ None

What condition is the primary seal in?: ◯ Good ◯ Poor

Select the secondary seal type:

◯ Flexible Wiper ◯ Rim Mounted ◯ Weather Shield, Shoe Mounted
◯ Flexible Wiper, Rim Mounted ◯ Shoe Mounted ◯ Other
◯ Flexible Wiper, Shoe Mounted ◯ Weatherguard, Rim Mounted ◯ None
◯ Resiliant Filled, Rim Mounted ◯ Weather Shield
◯ Resiliant Filled, Shoe Mounted ◯ Weather Shield, Rim Mounted

What condition is the secondary seal in?: ◯ Good ◯ Poor

8. Breather Vent Settings – Fixed Roof Tanks only

Vacuum Setting	Pressure Setting
psig	psig

9. Deck Characteristics – Internal Floating Roof Tanks only

Select the deck type: ◯ Bolted ◯ Welded

Select the deck construction type: ◯ Continuous Sheet ◯ Panel

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Deck Material Width	Deck Material Length	Total Deck Seam Length
ft	ft	ft

10. Detailed Fitting List – Floating Roof Tanks only

Please add information for the deck fitting type used in this operation:

- See Table A for a list of options for Fitting Type and Fitting Construction Detail.
- If more than 2 deck fitting types are used, submit the additional information on a separate sheet of paper.

Fitting Type 1:	Quantity:
Fitting Construction Detail:	
Fitting Type 2:	Quantity:
Fitting Construction Detail:	

11. Material Usage

Fill out information on the material stored in this tank and submit a copy of the safety data sheet (SDS):

- See Tables B and C for lists of emission factor basis codes and material codes.

Material Name	Material Code	Maximum Annual Usage
		thou gal

Reid Vapor Pressure	True Vapor Pressure	Tank Material Temperature
psia	psia	
Average Liquid Density	Liquid Molecular Weight	Slope of ASTM Curve (Petroleum only)
lbs/gal	lb/lb-mole	degrees
Filling Saturation Factor	Maximum Liquid Height	Vapor Pressure Function
	ft	
Withdrawal Loss	Rim Seal Loss	Deck Fitting Loss

Standing Loss During Roof Landing	Max Standing Loss During Roof Landing

Filling Loss During Roof Landing	Total Loss During Roof Landing	Drain Loss

Material Emission Factors

Pollutant	Emission Factors (lb/unit)	Basis Code
Particulates		
Organics		
Nitrogen Oxides (NO_x)		
Sulfur Dioxide		
Carbon Monoxide		
Other:		
Other:		

12. Emission Train Information

With regard to emission flow, what abatement devices and/or emission points are *immediately* downstream of this source?

Abatement Devices A_____ A_____ A_____ Emission Points P_____ P_____ P_____

- Complete an Abatement Device Form and/or Emission Point Form for each connection.

Use one form for each storage tank. Do not combine multiple tanks on a single form.
All fields are required unless otherwise noted. Please type or print.

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13. **Certification/Signature** of person responsible for the information on this form

I hereby certify that I am authorized to complete this form for the facility and that all information contained herein is true and correct.

Name	Title	
Signature	Date	Phone (xxx-xxx-xxxx)

Table A. Detailed Fitting List Options

FITTING TYPE OPTIONS		
Access Hatch (24" diameter)	Rim Vent (6" diameter)	Sample Pipe/Well (24" diameter)
Automatic Gauge Float Well	Roof Drain (3" diameter)	Slotted Guide-Pole/Sample Well
Column Well (24" diameter)	Roof Leg (3" diameter)	Unslotted Guide-Pole Well
Gauge Hatch/Sample Well (8" diameter)	Roof Leg or Hanger Well	Vacuum Breaker
Ladder Well (36" diameter)		
FITTING CONSTRUCTION DETAIL OPTIONS		
90% Closed	Gasketed Sliding Cover, with Float	Sliding Cover, Gasketed
Adjustable	Gasketed Sliding Cover, with Float, Sleeve, Wiper	Sliding Cover, Ungasketed
Adjustable, Center Area, Gasketed	Gasketed Sliding Cover, with Float, Wiper	Slotted Pipe, Sliding Cover, Gasketed
Adjustable, Center Area, Sock	Gasketed Sliding Cover, with Pole Sleeve	Slotted Pipe, Sliding Cover, Ungasketed
Adjustable, Center Area, Ungasketed	Gasketed Sliding Cover, with Pole Sleeve, Wiper	Unbolted Cover, Gasketed
Adjustable, Double-Deck Roofs	Gasketed Sliding Cover, with Pole Wiper	Unbolted Cover, Ungasketed
Adjustable, Pontoon Area, Gasketed	Gasketed Sliding Cover, with Sleeve	Ungasketed Sliding Cover
Adjustable, Pontoon Area, Sock	Gasketed Sliding Cover, with Wiper	Ungasketed Sliding Cover, with Float
Adjustable, Pontoon Area, Ungasketed	Gasketed Sliding Cover, without Float	Ungasketed Sliding Cover, with Sleeve
Bolted Cover, Gasketed	Open	Ungasketed Sliding Cover, without Float
Built-up Column, Sliding Cover, Gasketed	Pipe Column, Flexible Fabric Sleeve Seal	Weighted Mechanical Actuation, Gasketed
Built-up Column, Sliding Cover, Ungasketed	Pipe Column, Sliding Cover, Gasketed	Weighted Mechanical Actuation, Ungasketed
Fitting Construction Detail	Pipe Column, Sliding Cover, Ungasketed	Weighted Mechanical Gasketed
Fixed	Sample Well-slit Fabric Seal 10% Open Area	Weighted Mechanical Ungasketed
Gasketed Sliding Cover		

Table B. Basis Codes – For Emission Factor Tables

CODE	BASIS	CODE	BASIS	CODE	BASIS
1	BAAQMD Regulation 9-7	5	EPA/CARB Certification	9	Other
2	CARB Certification	6	EPA Certification	10	Other Literature
3	CATEF	7	Manufacturer/Vendor Specification	11	Regulation
4	EPA AP-42	8	Material Balance	12	Source Test

Table C. Material Codes

CODE	MATERIAL NAME	CODE	MATERIAL NAME	CODE	MATERIAL NAME
294	1,1,1-trichloroethane (with dioxane)	359	1,4-dioxane	453	Acetate - other/not specified
387	1,3-dichloropropene	16	Acetate - alkyl	454	Acetic acid

CODE	MATERIAL NAME	CODE	MATERIAL NAME	CODE	MATERIAL NAME
455	Acetone	62	Cellosolve	105	Ethyl alcohol
456	Acetonitrile	63	Cellosolve acetate	106	Ethyl amine
353	Acrylonitrile	520	Chlorobenzene	555	Ethyl-3-ethoxy propionate
459	Adhesive - other/not specified	390	Chloroform	333	Ethylbenzene
13	Alcohol - amine	346	Coker fresh feed	420	Ethylene dibromide
228	Alcohol - pri-sec C2+, other/not specified	351	Cooking oil	561	Ethylene glycol
15	Aliphatic aldehydes	89	Crude oil	602	Ethylene glycol monobutyl ether acetate
389	Alkylate	340	Crude oil - Refinery Cap	808	Ethylenediamine
125	Amine - formin	379	Cut asphalt	344	FCC fresh feed, refinery
21	Amine - other/not specified	491	Cyclohexanone	124	Formaldehyde
813	Aqueous cleaning solution	92	Cycloparaffins - other/not specified	450	Formaldehyde/water mixture
26	Aromatic amines	96	Diacetone alcohol	392	Fuel oil #2
27	Aromatic hydrocarbons - other/not specified	98	Diesel fuel	211	Fully halogenated hydrocarbons
30	Asphalt	485	Diethanolamine	394	Gas oil
380	Asphalt emulsion	661	Diethylene glycol	128	Gasoline - Leaded
662	Avgas	578	Diethylene glycol monobutyl ether	682	Gasoline - oxygenated, ethanol additive
794	Basecoat	99	Dimethyl formamide	679	Gasoline - oxygenated, methanol additive
41	Benzene	546	Dimethyl Sulfoxide	680	Gasoline - oxygenated, MTBE additive
815	Biodiesel (B100)	804	Dipropylene glycol monomethyl ether	677	Gasoline - oxygenated, TAME additive
816	Biodiesel (B20-blend)	315	Distillate oil	551	Gasoline - Unleaded
44	Branched alkyl ketones - other/not specified	864	Distillers Corn Oil	530	Glycol ether - other/not specified
242	Bunker C fuel oil	463	Dowtherm heat exchange fluid	131	Glycols
416	Butane	101	Enamel - general	814	Halogenated hydrocarbon mixture - other not
48	Butyl acetate	440	Epoxy coating	147	Heptane
571	Butyl acrylate	574	Epoxy resin	148	Hexane
49	Butyl alcohol	102	Esters - other/not specified	318	Hydrocarbon - mixtures, other/not specified
522	Butyl cellosolve	664	Ethanolamine	152	Ink - general
866	Canola Oll	103	Ethers	604	Isobutyl acetate
60	Carbon tetrachloride	104	Ethyl acetate	700	Isobutyl isobutyrate
431	Caustic waste	348	Ethyl acrylate	154	Isooctane

CODE	MATERIAL NAME	CODE	MATERIAL NAME	CODE	MATERIAL NAME
686	Isopar H	188	Naphtha	842	Propylene tetramer
155	Isopentane	547	n-methyl-2-pyrrolidone	239	Refinery feedstock - other/not specified
156	Isopropyl acetate	312	n-methylpyrrolidine	347	Refinery sludge
157	Isopropyl alcohol	313	n-propyl alcohol	442	Refinery sour waste water
158	Jet A Fuel	352	Oil - non-fuel, other/not specified	398	Reformate
395	Jet Propellant 4 (JP-4)	503	Oil/water mixture	859	Renewable Diesel
492	Jet Propellant 5 (JP-5)	195	Olefinic hydrocarbons	867	Renewable feedstock- other/not specified
684	Jet Propellant 8 (JP-8)	461	Olefins - part halogenated, other/not specified	870	Renewable Naphtha
159	Kerosene	54	Organic acids - C3+	869	Renewable Propane
90	Ketone - other/not specified	201	Organic liquid - other/not specified	435	Resin - other/not spec
162	Lactol spirits	451	Other Halogenated Dry Cleaning Solvent	75	Soap
445	Latex paint	200	Other Liquid Fuel	865	Soybean Oil
570	Latex polymer coating	205	Paint - other/not specified	401	Stoddard solvent
160	LPG	52	Paraffins - C3+	263	Styrene
419	Lube oil	464	Partially chlorinated heterocyclics	317	Substituted aromatics
458	Methyl acrylate	209	Pentane	735	Surface coating - other/not specified
179	Methyl alcohol	465	Perchlorinated heterocyclics	366	Tall oil
169	Methyl ethyl ketone (MEK)	210	Perchloroethylene	290	Terpenic hydrocarbon
331	Methyl isoamyl ketone	213	Pesticides	548	Tetrahydrofuran
170	Methyl isobutyl ketone (MIBK)	321	Petroleum products - other/not specified	293	Toluene
397	Methyl methacrylate	214	Phenol	295	Trichloroethylene
729	Methyl n-amyl ketone	667	Photoresist stripper	298	Varnish - other/not specified
725	Methyl propyl ketone	219	Phthalic anhydride	299	Varsol
628	Methyl tertiary-butyl ether	438	Polymerizing catalyst - other/not specified	399	Vinyl acetate
802	Methyldiethanolamine	675	Polyvinyl acetate emulsion	549	Waste oil
396	Methylene chloride	229	Primer - general	300	Waste water - refin, other/not specified
573	Methylenedianiline (MDA)	417	Propane	443	Waste water - other/not specified
184	Mineral spirits	579	Propylene glycol monomethyl ether	502	Water/organics mixture
310	n,n-dimethyl acetamide	601	Propylene glycol monomethyl ether acetate	432	Wax
311	n-alkyl ketones	690	Propylene glycol, 1,2-	307	Xylene