

**USCG Marine Safety Center
Inland Tank Barge
Tank Group Characteristics Loading Form**

1. Vessel Information

Vessel Name: _____ Official Number: _____
 Shipyard: _____ Hull Number: _____
 Operating Subchapter (D, O, etc.): _____

2. Bulk Liquid Cargo Authority

(MSC-3 use only)

46 CFR Subchapter D Authority: _____ Highest Grade: _____ Capacity: _____ (bbls)
 46 CFR Subchapter O Authority: _____ Part 151: _____ Part 153: _____ Part 154: _____

3. Bulk Liquid Cargo Conditions of Carriage

(applies only to Subchapter O Cargoes - 46 CFR 151)

(MSC-3 use only)

Loading Constraints - Structural

Tank(s)	Tank Capacity (bbls)	Max Cargo Weight/Tank (Short Tons)	Max Density (lbs/gal)

Loading Constraints - Stability

Hull Type(s)	Route(s)	Max Load (Short Tons)	Max Draft (ft. in.)	Max Density (lbs/gal)

4. Cargo Tank Group Characteristics

(complete the following section for each tank group by filling in the requested information or choosing the appropriate characteristics)

4.a. Tank Group Designation (A, B, etc.): _____

4.b. Tanks in tank group (#1P, #2S, etc.): _____

4.c. Flammability Grade: A B C D E none

(46 CFR 30.10-15 and 30.10-22)

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4. Cargo Tank Group Characteristics (continued)

(complete the following section for each tank group by filling in the requested information or choosing the appropriate characteristics)

4.d. Cargo Identification - Pressure: <small>(46 CFR 151.05-1(b))</small>	Pressurized	Atmospheric		
4.e. Cargo Identification - Temperature: <small>(46 CFR 151.05-1(c))</small>	Ambient	Low	Elevated	
4.f. Maximum Cargo Density:	_____ (lbs/gal)			
4.g. Hull Type: <small>(46 CFR 151.10 and 46 CFR 32.63)</small>	I	I-L	II	III
4.h. Cargo Segregation - Tanks: <small>(46 CFR 151.13)</small>	1i	1ii	2i	2ii
4.i. Tanks - Type: <small>(46 CFR 151.15-1)</small>	Integral	Independent	Gravity	Pressure
4.j. Tanks - Venting <small>(46 CFR 151.15-5)</small>	Open	Pressure/Vacuum	Safety Relief	Rupture Disk
	PV valve setting (psig):		SR valve setting (psig):	
4.k. Height of Vent Header above deck at centerline: <small>(46 CFR 32.55)</small>	_____ (feet)			
4.l. Tanks - Gauging Devices: <small>(46 CFR 151.15-10)</small>	Open	Restricted	Closed	Isolated or Indirect
4.m. Cargo Transfer - Piping: <small>(46 CFR 32.50; Table 56.04-2; and 151.20)</small>	I	I-L	II	II-L
4.n. Cargo Transfer - Control: <small>(46 CFR 151.20-5)</small>	G-1	G-2	P-1	P-2
4.o. Environmental Control - Cargo Tanks: <small>(46 CFR 151.25-1)</small>	Inerted Padded Ventilated-natural		Inert Dry Water Pad Ventilated-forced	Dry Not Required
4.p. Environmental Control - Cargo Handling Space: <small>(46 CFR 151.25-2)</small>	Ventilated-natural	Ventilated-forced	Not Required	NA
4.q. Fire Protection Provided: <small>(46 CFR 151.30-1)</small>	No	Yes	Type: _____	
4.r. Is there any electrical equipment located in a hazardous location inside this tank group? <small>(46 CFR 111.105-1)</small>			Yes	No
	If yes, what electrical hazard groups:			
4.s. Does the tank group have some form of cargo temperature control? <small>(46 CFR 151.40)</small>			Yes	No

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4. Cargo Tank Group Characteristics (continued)

(complete the following section for each tank group by filling in the requested information or choosing the appropriate characteristics)

4.t. Special 46 CFR 151 Design and Material Requirements

(check those requirements that the tank group meets)

151.40- Temperature or Pressure Control Installations

- 1(a) Cargo Boiloff
- 1(b)(1) External cargo cooling - vapor compression
- 1(c) Internal heat exchange
- 1(f)(1) Tank heating

151.50- Special Requirements

- 5 Toxic cargoes
- 5(d) Independent piping
- 6(a) Motor fuel antiknock compounds
- 10 Alkylene oxides
- 12 Ethylene oxide
- 13 Propylene oxide
- 20 Inorganic acids
- 21 Sulfuric acid
- 22 Hydrochloric acid
- 23 Phosphoric acid
- 30 Compressed gases
- 31 Chlorine
- 32 Ammonia, Anhydrous
- 34 Vinyl chloride (VCM)
- 35 Sulfur dioxide
- 36 Argon or Nitrogen
- 40 Carbon disulfide/bisulfide and ethyl ether
- 41 Carbon disulfide/bisulfide

151.50- Special Requirements (cont'd)

- 42 Ethyl ether
- 50 Elemental phosphorus in water
- 55 Sulfur, molten
- 60 Benzene
- 70(a) Cargoes requiring inhibition
- 70(b) Cargoes requiring stabilization
- 73 Chemical protective clothing
- 74 Ethylene nobornene
- 75 Ferric chloride solution
- 76 Hydrochloric acid, spent (NTE 15%)
- 77 Fluorosilicic acid (30% or less)
- 79 Methyl acetylene-propadiene mixture
- 80 Nitric acid (70% or less)
- 81 Special op req. - heat sensitive cargoes
- 81(a) No heating coils or coils blanked off
- 81(b) Not next to an elevated cargo
- 84 Sulfur dioxide
- 86 Octyl nitrates

151.55- Special Material Requirements

- 1(b) Cu, Cu alloys, Zn, Al prohibited
- 1(c) Cu, Cu alloys, Zn, galv steel, Hg prohibited
- 1(e) Cu, Cu alloys prohibited
- 1(f) Cu, Cu alloys, Al, Al alloys prohibited
- 1(g) Al, SS, steel w/protective coating req'd
- 1(h) Do not contam w/alkaline or acidic mat'ls
- 1(i) ≥ 98%, Al or SS req.; < 98%, 304L/316 SS req
- 1(j) Zn, alloy with > 10 wt% Zn, Al prohibited

151.56- Prohibited Mat'ls of Construction

- 1(a) Al or Al alloys
- 1(b) Cu or Cu alloys
- 1(c) Zn, galv steel, alloy with > 10wt% Zn
- 1(d) Magnesium
- 1(e) Lead
- 1(f) Silver or Silver alloys
- 1(g) Mercury

151.58- Required Materials of Construction

- 1(a) Al, SS, or steel w/protective lining or coating
- 1(d) Solid austenitic SS
- 1(e) SS or w/protective lining or coating