



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



This form applies to any vessel operating on INLAND routes desiring to carry D/O or O cargoes

1. Vessel Information

Vessel Name(s): _____
 Official Number(s): _____
 Hull Number(s): _____
 Shipyard: _____
 Date: _____ / Revision: _____

2. Bulk Liquid Cargo Authority Summary

Maximum Cargo Density: _____ (lbs/gal)
 Does the Vessel have a VCS onboard? (If so, note Vapor/Air Density & VCS Category below.) No Yes
 Maximum Vapor/Air Mix Density (as applicable): _____ (lbs/ft³)
 Desired VCS Categories Requested (as applicable): Cat 1 Cat 2 Cat 3 Cat 4 Cat 5 Cat 6 Cat 7

3. Supplemental Information for Cargo Authority

3.a. Do you want cargoes with reduced tank inspection intervals be added to the CAA?
 Yes (include 2yr and 3yr intervals) No

3.b. List Serial Numbers for all prior Vapor Control System, Cargo Authority, and P&A Manual Approval Letters:

3.c. Notes Section:

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 Designations Requested (A, B, etc.): _____
 4.b Tanks in Tank Group (#1P,#2C,etc.): _____
 4.c Flammability Grades Desired: _____
 (46 CFR 30.10-15 and 30.10-22)

- 4.d Cargo Identification Pressure: Pressurized Atmospheric
(46 CFR 151.05-1(b))
- 4.e Cargo Identification Temperature: Ambient Low Elevated
(46 CFR 151.05-1(c))
- 4.f Maximum Cargo Density: _____ (lbs/gal)
- 4.g Hull Type (Most Stringent Only): I I-S II III
(46 CFR 151.10-1(b) and 46 CFR 32.63-5)
- 4.h Cargo Segregation – Tanks (2 May Apply): 1i 1ii NA 2i 2ii
(46 CFR 151.13-5)
- 4.i Tanks – Type (2 May Apply): Integral Independent Gravity Pressure
(46 CFR 151.15-1)
- 4.j Tanks – Venting (Most Stringent Only): Open P/V Safety Relief Rupture Disk
(46 CFR 151.15-5)
- 4.k Height of Vent Header above deck at centerline: _____ (Feet)
(46 CFR 32.55-20)
- 4.l Tanks – Gauging Devices (Most Stringent Only): Closed Restricted Open Isolated/Indirect
(46 CFR 151.15-10)
- 4.m Cargo Transfer – Piping: I I-L II II-L
(46 CFR Table 56.04-2, 46 CFR 32.50, 46 CFR 151.20)
- 4.n Cargo Transfer – Valves: G-1 G-2 P-1 P-2
(46 CFR 151.20-5)
- 4.o Environmental Control – Cargo Tanks: Inerted Dry Padded
(46 CFR 151.25-1)
Ventilated-Natural Ventilated-Forced NR
- 4.p Environmental Control – Cargo Handling Space: Ventilated-Natural Ventilated-Forced
(46 CFR 151.25-2)
NR NA
- 4.q Fire Protection Provided: Yes No Type: _____
(46 CFR 151.30-1)
- 4.r Is there any electrical equipment located within the hazardous location? Yes No
(46 CFR 111.105-1/ National Electric Code/ IEC 60079-1)
If yes: Electrical hazard group (I-A, I-B, I-C, I-D) _____
- 4.s Cargo Temperature Control Provided: Yes No
(46 CFR 151.40)

**** NR – Not Required**
**** NA – Not Applicable**

4.t Special 46 CFR 151 Design and Material Requirements (check requirements that the tank group meets)

46 CFR 151.40- Temperature or Pressure Control Installations

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

NOTE: Per 2019 Version of 46 CFR, reqs 1(b)2, 1(d), 1(e), and 1(f)2 are not noted as a requirement for Cargoes in 46 CFR Table 151.05

46 CFR 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)
- 36 Argon or Nitrogen
- 40 Carbon disulfide/bisulfide and ethylether
- 41 Carbon disulfide/bisulfide
- 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

46 CFR 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 contaminate w/alkaline or acidic mat'ls
- 1(i) $\geq 98\%$, Al or SS req'd.; $< 98\%$, 304L/316 SS req'd
- 1(j) Zn, alloy with > 10 wt% Zn, Al prohibited

46 CFR 151.58- Required Materials of Construction

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

46 CFR 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 > 10 wt%Zn
- 1(d) Magnesium
- 1(e) Lead
- 1(f) Silver or Silver alloys
- 1(g) Mercury
- 1(d) Solid austenitic SS