Marine Safety Center Form for Tank Vessels Installing a Vapor Control System

1. Vessel Name		Shipyard	
Official Number		Hull #	

2. **Purpose:** This form consolidates the information required for VCS approval. Entering the requested information will expedite your approval and significantly decrease the probability the MSC will return the submission for revision.

3. **Tank Design:** Raised Trunk ☐ Maximum Design Working Pressure: _____ psig

Flush Deck ☐ Existing Raised Trunk Barges need MSC approval letter serial number and date which approved its MDWP: _____

4. Requested Maximum Cargo Transfer Rates

_____ bbl/hr loading

_____ bbl/hr discharging

5. Requested Maximum Cargo-Air Mixture Vapor Density:

List the requested cargoes with the (a) highest vapor density and (b) highest pressure drop. They are not always the same cargo.

a. Cargo Name _____ _____ lbm/ft3

b. Cargo Name _____ _____ lbm/ft3

6. VCS Categories Requested (list): _____

7. Pressure Drop for the cargo(es) from Section 5 for the following scenarios:

	Cargo A psi	Cargo B psi
a. Most Remote Cargo Tank to P/V valve		
b. Most Remote Cargo Tank to VCS Facility Connection		
c. ΔP across P/V valve @ cargoes' Maximum Transfer Rate		
d. ΔP across Vacuum P/V @ MTR or Max. Discharge Rate		
e. ΔP across Spill Valve for Max. Density Cargo at MTR		

8. Pressure Vacuum Valve:

Manufacturer	
Model/Size	
CG Approval Number	

Settings in psig:

Pressure-side	
Vacuum-side	

Include the Manufacturer's ΔP versus Flow for both parts of P/V & **Spill Valve:** ☐

9. VCS Pipe Sizes:

Longitudinal Header _____ **Inches** Transverse Headers _____ **Inches**

10. Closed Gauging ☐

Check the box to signify the vessel will have closed gauging meeting 46 CFR 151.151-10(c). MSC Electrical Branch and the OCMI will verify the closed gauging meets these requirements.

11. Tank Overfill Protection System (check appropriate box or boxes and list make/model)

a. High Level/Tank Overfill Alarm	☐		**Setting in psig**
b. Overfill Control Shutdown	☐		
c. Spill Valve	☐		Meets ASTM F1271 ☐
d. Rupture Disk	☐		

If applicalble, Calculations demonstrate compliance with 39.20-9(b)(2). ☐

12. Submittal Includes a Graph or Table showing the ΔP through the VCS piping from the most remote cargo tank to the facility connection as a function of liquid transfer rate for **both** cargoes in Section 5. ☐

13. Submittal Includes a Graph or Table showing the Facility Pressure @ the vessel's vapor connect versus allowable transfer rate. This graph demonstrates the barge can satisfy 46 CFR 39.30-1(d)(3). See MSC "Guidelines" at www.msc.uscg\hq\msc for an example. ☐

14. Previous VCS approval letters**:** _____ _____

Reset Form