United States of America
Department of Homeland Security
United States Coast Guard

| | |
|---|---|
| Certification Date: | 28 Jun 2020 |
| Expiration Date: | 28 Jun 2021 |

# Temporary Certificate of Inspection

For ships on international voyages this certificate fulfills the requirements of SOLAS 74 as amended, regulation V/14, for a SAFE MANNING DOCUMENT.

This Temporary Certificate of Inspection is issued under the provision of Title 46 United States Code, Section 399, in lieu of the regular certificate of inspection, and shall be in force only until the receipt on board said vessel of the original certificate of inspection, this certificate in no case to be valid after one year from the date of inspection.

| Vessel Name | Official Number | IMO Number | Call Sign | Service |
|---|---|---|---|---|
| MMI 2804 | 1167652 | | | Tank Barge |

| Hailing Port | Hull Material | Horsepower | Propulsion |
|---|---|---|---|
| HOUSTON, TX<br>UNITED STATES | Steel | | |

| Place Built | Delivery Date | Keel Laid Date | Gross Tons | Net Tons | DWT | Length |
|---|---|---|---|---|---|---|
| JEFFERSONVILLE, IN<br>UNITED STATES | 20May2005 | 22Mar2005 | R-1754<br>I- | R-1754<br>I- | | R-297.5<br>I-0 |

Owner
HIGMAN BARGE LINES INC
55 WAUGH DR STE 1000
HOUSTON, TX 77007
UNITED STATES

Operator
HIGMAN BARGE LINES INC
1980 POST OAK BLVD - SUITE 1101
HOUSTON, TX 77056
UNITED STATES

This vessel must be manned with the following licensed and unlicensed Personnel. Included in which there must be 0 Certified Lifeboatmen, 0 Certified Tankermen, 0 HSC Type Rating, and 0 GMDSS Operators.

| | | | |
|---|---|---|---|
| 0 Masters | 0 Licensed Mates | 0 Chief Engineers | 0 Oilers |
| 0 Chief Mates | 0 First Class Pilots | 0 First Assistant Engineers | |
| 0 Second Mates | 0 Radio Officers | 0 Second Assistant Engineers | |
| 0 Third Mates | 0 Able Seamen | 0 Third Assistant Engineers | |
| 0 Master First Class Pilot | 0 Ordinary Seamen | 0 Licensed Engineers | |
| 0 Mate First Class Pilots | 0 Deckhands | 0 Qualified Member Engineer | |

In addition, this vessel may carry 0 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. Total Persons allowed: 0

Route Permitted And Conditions Of Operation:

**---Lakes, Bays, and Sounds---**

Also, in fair weather only, coastwise, not more than twelve (12) miles from shore between St. Marks and Carrabelle, Florida.

This vessel has been granted a fresh water service examination interval in accordance with 46 CFR 31.10-21(a)(2). If this vessel is operated in salt water more than 6 months in any 12 month period, the vessel must be inspected using salt water intervals per 46 CFR 31.10-21(a)(1) and the cognizant OCMI must be notified in writing as soon as this change in status occurs.

***SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION***

With this Inspection for Certification having been completed at UNITED STATES, the Officer in Charge, Marine Inspection, Sector New Orleans certified the vessel, in all respects, is in conformity with the applicable vessel inspection laws and the rules and regulations prescribed thereunder.

Annual/Periodic/Re-Inspection

| Date | Zone | A/P/R | Signature |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

This certificate issued by:
M.N. COCHRAN COMMANDER, by direction
Officer in Charge, Marine Inspection
Sector New Orleans
Inspection Zone

United States of America
Department of Homeland Security
United States Coast Guard

| | |
|---|---|
| Certification Date: | 28 Jun 2020 |
| Expiration Date: | 28 Jun 2021 |

# Temporary Certificate of Inspection

Vessel Name: MMI 2804

This tank barge is participating in the Eighth and Ninth Coast Guard District's Tank Barge Streamlined Inspection Program (TBSIP). Inspection activities aboard this barge shall be conducted in accordance with its Tank Barge Action Plan (TAP). Inspection issues concerning this barge should be directed to OCMI - Sector Houston-Galveston

## ---Hull Exams---

| Exam Type | Next Exam | Last Exam | Prior Exam |
|---|---|---|---|
| DryDock | 27May2025 | 27May2015 | 20May2005 |
| Internal Structure | 31May2025 | 12Jun2020 | 27May2015 |

## --- Liquid/Gas/Solid Cargo Authority/Conditions ---

Authorization: GRADE "A" AND LOWER AND SPECIFIED HAZARDOUS CARGOES.

| Total Capacity | Units | Highest Grade Type | Part151 Regulated | Part153 Regulated | Part154 Regulated |
|---|---|---|---|---|---|
| 27736 | Barrels | A | Yes | No | No |

***Hazardous Bulk Solids Authority***

Not Authorized

***Loading Constraints - Structural***

| Tank Number | Max Cargo Weight per Tank (short tons) | Maximum Density (lbs/gal) |
|---|---|---|
| 1 P / S | 726 | 13.6 |
| 2 P / S | 850 | 13.6 |
| 3 P / S | 809 | 13.6 |
| Port Slop | | |
| Stbd Slop | | |

***Loading Constraints - Stability***

| Hull Type | Maximum Load (short tons) | Maximum Draft (ft/in) | Max Density (lbs/gal) | Route Description |
|---|---|---|---|---|
| III | 4544 | 11ft 6in | 13.6 | R, LBS |
| II | 3677 | 9ft 9in | 13.6 | R, LBS |
| II | 3677 | 9ft 9in | 13.6 | R, LBS |
| III | 4544 | 11ft 6in | 13.6 | R, LBS |

***Conditions Of Carriage***

Only Grade A and lower cargoes and specified hazardous cargoes named in the vessel's Cargo Authority Attachment (CAA), serial #C1-0500003, dated January 04, 2005, may be carried. The specified hazardous cargoes may be carried only in the tanks indicated.

Per 46 CFR 150.130, the Person in Charge of the barge is responsible for ensuring that the compatibility requirements of 46 CFR 150 are met. Cargoes must be checked for compatibility using the figures, tables and appendices of 46 CFR 150 in conjunction with the reactive group numbers from the "COMPAT GROUP NO" column listed in the vessel's Cargo Authority Attachment.

The maximum design density of cargo which may be filled to the tank top is 8.745 lbs/gal. Cargoes with higher densities, up to 13.6 lbs/gal, may be carried as slack loads, but shall not exceed the tank weight limits as listed.

Per 46 CFR 151.10-15 (c) (2) the maximum tank weights listed above reflect uniform (within 5%) loading at the deepest draft

allowed. When carrying Subchapter "O" cargoes at shallower drafts, the barge should always be loaded uniformly.

Cargo tank maximum design working pressure: 3.40 psig

*Vapor Control Authorization*

In accordance with 46 CFR Part 39, excluding part 39.4000, this vessel's vapor recovery system has been inspected to the plans approved by Marine Safety Center letter Serial #C2-0404852 dated November 22, 2004, and has been found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the VCS column of the vessel's Cargo Authority Attachment.

When the vessel is carrying cargoes containing greater than 0.5% benzene, the person in charge is responsible for ensuring the provisions of 46 CFR part 197, Subpart C are applied.

## --- Inspection Status ---

***Fuel Tanks***

| | Internal Examinations | | |
|---|---|---|---|
| Tank ID | Previous | Last | Next |
| Main Deck Aft | - | 20May2005 | - |

***Cargo Tanks***

| | Internal Exam | | | External Exam | | |
|---|---|---|---|---|---|---|
| Tank Id | Previous | Last | Next | Previous | Last | Next |
| 1 P / S | 20May2005 | 27May2015 | 27May2025 | - | - | - |
| 2 P / S | 20May2005 | 27May2015 | 27May2025 | - | - | - |
| 3 P / S | 20May2005 | 27May2015 | 27May2025 | - | - | - |

| | | Hydro Test | | |
|---|---|---|---|---|
| Tank Id | Safety Valves | Previous | Last | Next |
| 1 P / S | - | - | - | - |
| 2 P / S | - | - | - | - |
| 3 P / S | - | - | - | - |

## ---Conditional Portable Fire Extinguisher Requirements---

Required Only During Transfer of Cargo or Operation of Barge Machinery

## --- Fire Fighting Equipment ---

***Fire Extinguishers - Hand portable and semi-portable***

| Quantity | Class Type |
|---|---|
| 2 | B-II |

***END***

Department of Homeland Security
**United States Coast Guard**

Serial #: *C1-0500003*
Generated: *04-Jan-05*

# *Certificate of Inspection*

## *Cargo Authority Attachment*

Vessel Name: **MMI 2804**
Official #: 1167652

Shipyard: Jeffboat
Hull #: 04-2246

### 46 CFR 151 Tank Group Characteristics

| Tank Group Information | | Cargo Identification | | | Hull Typ | Cargo Seg Tank | Tanks | | | Cargo Transfer | | Environmental Control | | Fire Protection Provided | Special Requirements | | Elec Haz | Temp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tnk Grp | Tanks in Group | Density | Press. | Temp. | | | Type | Vent | Gauge | Pipe Class | Cont | Tanks | Handling Space | | General | Materials of Construction | | |
| A | #1 - #3 P/S | 13.6 | Atmos. | Amb. | II | 1ii 2ii | Integral Gravity | PV | Closed | II | G-1 | NR | NA | Portable | .50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50-81(b), | 55-1(b), (c), (e), (f), (h), (j), 56-1(a), (b), (c), (d), (e), (f), (g), | NR | No |

Notes: 1. Under Environmental Control, Tanks, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo tanks.

2. Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.

3. Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.

## List of Authorized Cargoes

| Cargo Identification | | | | | | Conditions of Carriage | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Vapor Recovery* | | |
| Name | Chem Code | Compat Group | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction |
| **Authorized Subchapter O Cargoes** | | | | | | | | | |
| Acetonitrile | ATN | 37 | O | C | III | A | Yes | 3 | No |
| Acrylonitrile | ACN | 15 [2] | O | C | II | A | Yes | 4 | .50-70(a), .55-1(e) |
| Adiponitrile | ADN | 37 | O | E | II | A | Yes | 1 | No |
| Alkyl(C7-C9) nitrates | AKN | 34 [2] | O | NA | III | A | No | N/A | .50-81, .50-86 |
| Aminoethylethanolamine | AEE | 8 | O | E | III | A | Yes | 1 | .55-1(b) |
| Ammonium bisulfite solution (70% or less) | ABX | 43 [2] | O | NA | III | A | No | N/A | .50-73, .56-1(a), (b), (c) |
| Ammonium hydroxide (28% or less NH3) | AMH | 6 | O | NA | III | A | No | N/A | .56-1(a), (b), (c), (f), (g) |
| Anthracene oil (Coal tar fraction) | AHO | 33 | O | NA | II | A | No | N/A | No |
| Benzene | BNZ | 32 | O | C | III | A | Yes | 1 | .50-60 |
| Benzene or hydrocarbon mixtures (having 10% Benzene or more) | BHB | 32 [2] | O | C | III | A | Yes | 1 | .50-60 |
| Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more) | BHA | 32 [2] | O | C | III | A | Yes | 1 | .50-60, .56-1(b), (d), (f), (g) |
| Benzene, Toluene, Xylene mixtures (10% Benzene or more) | BTX | 32 | O | B/C | III | A | Yes | 1 | .50-60 |
| Butyl acrylate (all isomers) | BAR | 14 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| Butyl methacrylate | BMH | 14 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| Butyraldehyde (all isomers) | BAE | 19 | O | C | III | A | Yes | 1 | .55-1(h) |
| Camphor oil (light) | CPO | 18 | O | D | II | A | No | N/A | No |
| Carbon tetrachloride | CBT | 36 | O | NA | III | A | No | N/A | No |
| Caustic potash solution | CPS | 5 [2] | O | NA | III | A | No | N/A | .50-73, .55-1(j) |
| Caustic soda solution | CSS | 5 [2] | O | NA | III | A | No | N/A | .50-73, .55-1(j) |
| Chemical Oil (refined, containing phenolics) | COD | 21 | O | E | II | A | No | N/A | .50-73 |
| Chlorobenzene | CRB | 36 | O | D | III | A | Yes | 1 | No |
| Chloroform | CRF | 36 | O | E | III | A | Yes | 3 | No |
| Coal tar naphtha solvent | NCT | 33 | O | D | III | A | Yes | 1 | .50-73 |
| Creosote | CCW | 21 [2] | O | E | III | A | Yes | 1 | No |
| Cresols (all isomers) | CRS | 21 | O | E | III | A | Yes | 1 | No |
| Cresylate spent caustic | CSC | 5 | O | NA | III | A | No | N/A | .50-73, .55-1(b) |
| Cresylic acid tar | CRX | | O | E | III | A | Yes | 1 | .55-1(f) |
| Crotonaldehyde | CTA | 19 [2] | O | C | II | A | Yes | 4 | .55-1(h) |
| Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein) | CHG | | O | C | III | A | No | N/A | No |
| Cyclohexanone | CCH | 18 | O | D | III | A | Yes | 1 | .56-1(a), (b) |
| Cyclohexanone, Cyclohexanol mixture | CYX | 18 [2] | O | E | III | A | Yes | 1 | .56-1 (b) |
| Cyclohexylamine | CHA | 7 | O | D | III | A | Yes | 1 | .56-1(a), (b), (c), (g) |
| Cyclopentadiene, Styrene, Benzene mixture | CSB | 30 | O | D | III | A | Yes | 1 | .50-60, .56-1(b) |
| iso-Decyl acrylate | IAI | 14 | O | E | III | A | Yes | 2 | .50-70(a), .50-81(a), (b), .55-1(c) |
| Dichlorobenzene (all isomers) | DBX | 36 | O | E | III | A | Yes | 3 | .56-1(a), (b) |
| 1,1-Dichloroethane | DCH | 36 | O | C | III | A | Yes | 1 | No |

# *Certificate of Inspection*

## *Cargo Authority Attachment*

Vessel Name: **MMI 2804**
Official #: 1167652



Shipyard: Jeffboat
Hull #: 04-2246

| Cargo Identification | | | | | | Conditions of Carriage | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Vapor Recovery | | |
| Name | Chem Code | Compat Group | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction |
| 2,2'-Dichloroethyl ether | DEE | 41 | O | D | II | A | Yes | 1 | .55-1(f) |
| Dichloromethane | DCM | 36 | O | NA | III | A | No | N/A | No |
| 2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution | DDE | 43 | O | E | III | A | No | N/A | .56-1(a), (b), (c), (g) |
| 2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution | DAD | 0 [1,2] | O | A | III | A | No | N/A | .56-1(a), (b), (c), (g) |
| 2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less) | DDA | | O | LFG | III | A | No | N/A | .55-1(b) |
| 2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution | DTI | 43 [2] | O | E | III | A | No | N/A | .56-1(a), (b), (c), (g) |
| 1,1-Dichloropropane | DPB | 36 | O | C | III | A | Yes | 3 | No |
| 1,2-Dichloropropane | DPP | 36 | O | C | III | A | Yes | 3 | No |
| 1,3-Dichloropropane | DPC | 36 | O | C | III | A | Yes | 3 | No |
| 1,3-Dichloropropene | DPU | 15 | O | D | II | A | Yes | 4 | No |
| Dichloropropene, Dichloropropane mixtures | DMX | 15 | O | C | II | A | Yes | 1 | No |
| Diethanolamine | DEA | 8 | O | E | III | A | Yes | 1 | .55-1(c) |
| Diethylamine | DEN | 7 | O | C | III | A | Yes | 3 | .55-1(c) |
| Diethylenetriamine | DET | 7 [2] | O | E | III | A | Yes | 1 | .55-1(c) |
| Diisobutylamine | DBU | 7 | O | D | III | A | Yes | 3 | .55-1(c) |
| Diisopropanolamine | DIP | 8 | O | E | III | A | Yes | 1 | .55-1(c) |
| Diisopropylamine | DIA | 7 | O | C | II | A | Yes | 3 | .55-1(c) |
| N,N-Dimethylacetamide | DAC | 10 | O | E | III | A | Yes | 3 | .56-1(b) |
| Dimethylethanolamine | DMB | 8 | O | D | III | A | Yes | 1 | .56-1(b), (c) |
| Dimethylformamide | DMF | 10 | O | D | III | A | Yes | 1 | .55-1(e) |
| Di-n-propylamine | DNA | 7 | O | C | II | A | Yes | 3 | .55-1(c) |
| Dodecyldimethylamine, Tetradecyldimethylamine mixture | DOT | 7 | O | E | III | A | No | N/A | .56-1(b) |
| Ethanolamine | MEA | 8 | O | E | III | A | Yes | 1 | .55-1(c) |
| Ethyl acrylate | EAC | 14 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| Ethylamine solution (72% or less) | EAN | 7 | O | A | II | A | Yes | 6 | .55-1(b) |
| N-Ethylbutylamine | EBA | 7 | O | D | III | A | Yes | 3 | .55-1(b) |
| N-Ethylcyclohexylamine | ECC | 7 | O | D | III | A | Yes | 1 | .55-1(b) |
| Ethylene cyanohydrin | ETC | 20 | O | E | III | A | Yes | 1 | No |
| Ethylenediamine | EDA | 7 [2] | O | D | III | A | Yes | 1 | .55-1(c) |
| Ethylene dichloride | EDC | 36 [2] | O | C | III | A | Yes | 1 | No |
| Ethylene glycol hexyl ether | EGH | 40 | O | E | III | A | No | N/A | No |
| Ethylene glycol monoalkyl ethers | EGC | 40 | O | D/E | III | A | Yes | 1 | No |
| Ethylene glycol propyl ether | EGP | 40 | O | E | III | A | Yes | 1 | No |
| 2-Ethylhexyl acrylate | EAI | 14 | O | E | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| Ethyl methacrylate | ETM | 14 | O | D/E | III | A | Yes | 2 | .50-70(a) |
| 2-Ethyl-3-propylacrolein | EPA | 19 [2] | O | E | III | A | Yes | 1 | No |
| Formaldehyde solution (37% to 50%) | FMS | 19 [2] | O | D/E | III | A | Yes | 1 | .55-1(h) |
| Furfural | FFA | 19 | O | E | III | A | Yes | 1 | .55-1(h) |
| Glutaraldehyde solution (50% or less) | GTA | 19 | O | NA | III | A | No | N/A | No |
| Hexamethylenediamine solution | HMC | 7 | O | E | III | A | Yes | 1 | .55-1(c) |
| Hexamethyleneimine | HMI | 7 | O | C | II | A | Yes | 1 | .56-1(b), (c) |
| Hydrocarbon 5-9 | HFN | | O | C | III | A | Yes | 1 | .50-70(a), .50-81(a), (b) |
| Isoprene | IPR | 30 | O | A | III | A | No | N/A | .50-70(a), .50-81(a), (b) |
| Isoprene, Pentadiene mixture | IPN | | O | B | III | A | No | N/A | .50-70(a), .55-1(c) |
| Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor) | KPL | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (c), (g) |
| Mesityl oxide | MSO | 18 [2] | O | D | III | A | Yes | 1 | No |
| Methyl acrylate | MAM | 14 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| Methylcyclopentadiene dimer | MCK | 30 | O | C | III | A | Yes | 1 | No |
| Methyl diethanolamine | MDE | 8 | O | E | III | A | Yes | 1 | .56-1(b), (c) |
| 2-Methyl-5-ethylpyridine | MEP | 9 | O | E | III | A | Yes | 1 | .55-1(e) |
| Methyl methacrylate | MMM | 14 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| 2-Methylpyridine | MPR | 9 | O | D | III | A | Yes | 3 | .55-1(c) |

# *Certificate of Inspection*

## *Cargo Authority Attachment*

Vessel Name: **MMI 2804**
Official #: 1167652



Shipyard: Jeffboat
Hull #: 04-2246

| Cargo Identification | | | | | | Conditions of Carriage | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Vapor Recovery | | |
| Name | Chem Code | Compat Group | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction |
| alpha-Methylstyrene | MSR | 30 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| Morpholine | MPL | 7 [2] | O | D | III | A | Yes | 1 | .55-1(c) |
| 1- or 2-Nitropropane | NPM | 42 | O | D | III | A | Yes | 1 | .50-81 |
| 1,3-Pentadiene | PDE | 30 | O | A | III | A | Yes | 7 | .50-70(a), .50-81 |
| Perchloroethylene | PER | 36 | O | NA | III | A | No | N/A | No |
| Polyethylene polyamines | PEB | 7 [2] | O | E | III | A | Yes | 1 | .55-1(e) |
| iso-Propanolamine | MPA | 8 | O | E | III | A | Yes | 1 | .55-1(c) |
| Propanolamine (iso-, n-) | PAX | 8 | O | E | III | A | Yes | 1 | .56-1(b), (c) |
| iso-Propylamine | IPP | 7 | O | A | II | A | No | N/A | .55-1(c) |
| Pyridine | PRD | 9 | O | C | III | A | Yes | 1 | .55-1(e) |
| Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxide) | SAP | | O | | III | A | No | N/A | .50-73, .55-1(j) |
| Sodium aluminate solution (45% or less) | SAU | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (b), (c) |
| Sodium chlorate solution (50% or less) | SDD | 0 [1,2] | O | NA | III | A | No | N/A | .50-73 |
| Sodium hypochlorite solution (20% or less) | SHQ | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (b) |
| Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less) | SSH | 0 [1,2] | O | NA | III | A | Yes | 1 | .50-73, .55-1(b) |
| Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but less than 200 ppm) | SSI | 0 [1,2] | O | NA | III | A | No | N/A | .50-73, .55-1(b) |
| Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm) | SSJ | 0 [1,2] | O | NA | II | A | No | N/A | .50-73, .55-1(b) |
| Styrene (crude) | STX | | O | D | III | A | Yes | 2 | No |
| Styrene monomer | STY | 30 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| 1,1,2,2-Tetrachloroethane | TEC | 36 | O | NA | III | A | No | N/A | No |
| Tetraethylenepentamine | TTP | 7 | O | E | III | A | Yes | 1 | .55-1(c) |
| Tetrahydrofuran | THF | 41 | O | C | III | A | Yes | 1 | .50-70(b) |
| Toluenediamine | TDA | 9 | O | E | II | A | No | N/A | .50-73, .56-1(a), (b), (c), (g) |
| 1,2,4-Trichlorobenzene | TCB | 36 | O | E | III | A | Yes | 1 | No |
| 1,1,2-Trichloroethane | TCM | 36 | O | NA | III | A | Yes | 1 | .50-73, .56-1(a) |
| Trichloroethylene | TCL | 36 [2] | O | NA | III | A | Yes | 1 | No |
| 1,2,3-Trichloropropane | TCN | 36 | O | E | II | A | Yes | 3 | .50-73, .56-1(a) |
| Triethanolamine | TEA | 8 [2] | O | E | III | A | Yes | 1 | .55-1(b) |
| Triethylamine | TEN | 7 | O | C | II | A | Yes | 3 | .55-1(e) |
| Triethylenetetramine | TET | 7 [2] | O | E | III | A | Yes | 1 | .55-1(b) |
| Triphenylborane (10% or less), caustic soda solution | TPB | 5 | O | NA | III | A | No | N/A | .56-1(a), (b), (c) |
| Trisodium phosphate solution | TSP | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (c). |
| Urea, Ammonium nitrate solution (containing more than 2% NH3) | UAS | 6 | O | NA | III | A | No | N/A | .56-1(b) |
| Vanillin black liquor (free alkali content, 3% or more). | VBL | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (c), (g) |
| Vinyl acetate | VAM | 13 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) |
| Vinyl neodecanate | VND | 13 | O | E | III | A | No | N/A | .50-70(a), .50-81(a), (b) |
| Vinyltoluene | VNT | 13 | O | D | III | A | Yes | 2 | .50-70(a), .50-81, .56-1(a), (b), (c), (g) |

### Subchapter D Cargoes Authorized for Vapor Control

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Acetone | ACT | 18 [2] | D | C | | A | Yes | 1 |
| Acetophenone | ACP | 18 | D | E | | A | Yes | 1 |
| Alcohol(C12-C16) poly(1-6)ethoxylates | APU | 20 | D | E | | A | Yes | 1 |
| Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates | AEB | 20 | D | E | | A | Yes | 1 |
| Amyl acetate (all isomers) | AEC | 34 | D | D | | A | Yes | 1 |
| Amyl alcohol (iso-, n-, sec-, primary) | AAI | 20 | D | D | | A | Yes | 1 |
| Benzyl alcohol | BAL | 21 | D | E | | A | Yes | 1 |
| Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) | BFX | 20 | D | E | | A | Yes | 1 |
| Butyl acetate (all isomers) | BAX | 34 | D | D | | A | Yes | 1 |
| Butyl alcohol (iso-) | IAL | 20 [2] | D | D | | A | Yes | 1 |
| Butyl alcohol (n-) | BAN | | D | D | | A | Yes | 1 |

# *Certificate of Inspection*

## *Cargo Authority Attachment*

Vessel Name: **MMI 2804**
Official #: 1167652



Shipyard: Jeffboat
Hull #: 04-2246

| Cargo Identification | | | | | | Conditions of Carriage | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Vapor Recovery* | | |
| Name | Chem Code | Compat Group | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction |
| Butyl alcohol (sec-) | BAS | | D | C | | A | Yes | 1 | |
| Butyl alcohol (tert-) | BAT | | D | C | | A | Yes | 1 | |
| Butyl benzyl phthalate | BPH | 34 | D | E | | A | Yes | 1 | |
| Butyl toluene | BUE | 32 | D | D | | A | Yes | 1 | |
| Caprolactam solutions | CLS | 22 | D | E | | A | Yes | 1 | |
| Cyclohexane | CHX | 31 | D | C | | A | Yes | 1 | |
| Cyclohexanol | CHN | 20 | D | E | | A | Yes | 1 | |
| 1,3-Cyclopentadiene dimer (molten) | CPD | 30 | D | D/E | | A | Yes | 2 | |
| p-Cymene | CMP | 32 | D | D | | A | Yes | 1 | |
| iso-Decaldehyde | IDA | 19 | D | E | | A | Yes | 1 | |
| n-Decaldehyde | DAL | 19 | D | E | | A | Yes | 1 | |
| Decene | DCE | 30 | D | D | | A | Yes | 1 | |
| Decyl alcohol (all isomers) | DAX | 20 [2] | D | E | | A | Yes | 1 | |
| n-Decylbenzene, see Alkyl(C9+)benzenes | DBZ | 32 | D | E | | A | Yes | 1 | |
| Diacetone alcohol | DAA | 20 [2] | D | E | | A | Yes | 1 | |
| ortho-Dibutyl phthalate | DPA | 34 | D | E | | A | Yes | 1 | |
| Diethylbenzene | DEB | 32 | D | D | | A | Yes | 1 | |
| Diethylene glycol | DEG | 40 [2] | D | E | | A | Yes | 1 | |
| Diisobutylene | DBL | 30 | D | C | | A | Yes | 1 | |
| Diisobutyl ketone | DIK | 18 | D | D | | A | Yes | 1 | |
| Diisopropylbenzene (all isomers) | DIX | 32 | D | E | | A | Yes | 1 | |
| Dimethyl phthalate | DTL | 34 | D | E | | A | Yes | 1 | |
| Dioctyl phthalate | DOP | 34 | D | E | | A | Yes | 1 | |
| Dipentene | DPN | 30 | D | D | | A | Yes | 1 | |
| Diphenyl | DIL | 32 | D | D/E | | A | Yes | 1 | |
| Diphenyl, Diphenyl ether mixtures | DDO | 33 | D | E | | A | Yes | 1 | |
| Diphenyl ether | DPE | 41 | D | {E} | | A | Yes | 1 | |
| Dipropylene glycol | DPG | 40 | D | E | | A | Yes | 1 | |
| Distillates: Flashed feed stocks | DFF | 33 | D | E | | A | Yes | 1 | |
| Distillates: Straight run | DSR | 33 | D | E | | A | Yes | 1 | |
| Dodecene (all isomers) | DOZ | 30 | D | D | | A | Yes | 1 | |
| Dodecylbenzene, see Alkyl(C9+)benzenes | DDB | 32 | D | E | | A | Yes | 1 | |
| 2-Ethoxyethyl acetate | EEA | 34 | D | D | | A | Yes | 1 | |
| Ethoxy triglycol (crude) | ETG | 40 | D | E | | A | Yes | 1 | |
| Ethyl acetate | ETA | 34 | D | C | | A | Yes | 1 | |
| Ethyl acetoacetate | EAA | 34 | D | E | | A | Yes | 1 | |
| Ethyl alcohol | EAL | 20 [2] | D | C | | A | Yes | 1 | |
| Ethylbenzene | ETB | 32 | D | C | | A | Yes | 1 | |
| Ethyl butanol | EBT | 20 | D | D | | A | Yes | 1 | |
| Ethyl tert-butyl ether | EBE | 41 | D | C | | A | Yes | 1 | |
| Ethyl butyrate | EBR | 34 | D | D | | A | Yes | 1 | |
| Ethyl cyclohexane | ECY | 31 | D | D | | A | Yes | 1 | |
| Ethylene glycol | EGL | 20 [2] | D | E | | A | Yes | 1 | |
| Ethylene glycol butyl ether acetate | EMA | 34 | D | E | | A | Yes | 1 | |
| Ethylene glycol diacetate | EGY | 34 | D | E | | A | Yes | 1 | |
| Ethylene glycol phenyl ether | EPE | 40 | D | E | | A | Yes | 1 | |
| Ethyl-3-ethoxypropionate | EEP | 34 | D | E | | A | Yes | 1 | |
| 2-Ethylhexanol | EHX | 20 | D | E | | A | Yes | 1 | |
| Ethyl propionate | EPR | 34 | D | C | | A | Yes | 1 | |
| Ethyl toluene | ETE | 32 | D | E | | A | Yes | 1 | |
| Formamide | FAM | 10 | D | E | | A | Yes | 1 | |
| Furfuryl alcohol | FAL | 20 [2] | D | E | | A | Yes | 1 | |

# *Certificate of Inspection*

## *Cargo Authority Attachment*

Vessel Name: **MMI 2804**
Official #: 1167652



Shipyard: Jeffboat
Hull #: 04-2246

| Cargo Identification | | | | | | Conditions of Carriage | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Vapor Recovery | | |
| Name | Chem Code | Compat Group | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction |
| Gasoline blending stocks: Alkylates | GAK | 33 | D | A/C | | A | Yes | 1 | |
| Gasoline blending stocks: Reformates | GRF | 33 | D | A/C | | A | Yes | 1 | |
| Gasolines: Automotive (containing not over 4.23 grams lead per gallon) | GAT | 33 | D | C | | A | Yes | 1 | |
| Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) | GAV | 33 | D | C | | A | Yes | 1 | |
| Gasolines: Casinghead (natural) | GCS | 33 | D | A/C | | A | Yes | 1 | |
| Gasolines: Polymer | GPL | 33 | D | A/C | | A | Yes | 1 | |
| Gasolines: Straight run | GSR | 33 | D | A/C | | A | Yes | 1 | |
| Glycerine | GCR | 20 [2] | D | E | | A | Yes | 1 | |
| Heptane (all isomers), see Alkanes (C6-C9) (all isomers) | HMX | 31 | D | C | | A | Yes | 1 | |
| Heptanoic acid | HEP | 4 | D | E | | A | Yes | 1 | |
| Heptanol (all isomers) | HTX | 20 | D | D/E | | A | Yes | 1 | |
| Heptene (all isomers) | HPX | 30 | D | C | | A | Yes | 2 | |
| Heptyl acetate | HPE | 34 | D | D | | A | Yes | 1 | |
| Hexane (all isomers), see Alkanes (C6-C9) | HXS | 31 [2] | D | B/C | | A | Yes | 1 | |
| Hexanoic acid | HXO | 4 | D | E | | A | Yes | 1 | |
| Hexanol | HXN | 20 | D | D | | A | Yes | 1 | |
| Hexene (all isomers) | HEX | 30 | D | C | | A | Yes | 2 | |
| Hexylene glycol | HXG | 20 | D | E | | A | Yes | 1 | |
| Isophorone | IPH | 18 [2] | D | E | | A | Yes | 1 | |
| Jet fuel: JP-4 | JPF | 33 | D | E | | A | Yes | 1 | |
| Jet fuel: JP-5 (kerosene, heavy) | JPV | 33 | D | D | | A | Yes | 1 | |
| Kerosene | KRS | 33 | D | D | | A | Yes | 1 | |
| Methyl acetate | MTT | 34 | D | D | | A | Yes | 1 | |
| Methyl alcohol | MAL | 20 [2] | D | C | | A | Yes | 1 | |
| Methylamyl acetate | MAC | 34 | D | D | | A | Yes | 1 | |
| Methylamyl alcohol | MAA | 20 | D | D | | A | Yes | 1 | |
| Methyl amyl ketone | MAK | 18 | D | D | | A | Yes | 1 | |
| Methyl tert-butyl ether | MBE | 41 [2] | D | C | | A | Yes | 1 | |
| Methyl butyl ketone | MBK | 18 | D | C | | A | Yes | 1 | |
| Methyl butyrate | MBU | 34 | D | C | | A | Yes | 1 | |
| Methyl ethyl ketone | MEK | 18 [2] | D | C | | A | Yes | 1 | |
| Methyl heptyl ketone | MHK | 18 | D | D | | A | Yes | 1 | |
| Methyl isobutyl ketone | MIK | 18 [2] | D | C | | A | Yes | 1 | |
| Methyl naphthalene (molten) | MNA | 32 | D | E | | A | Yes | 1 | |
| Mineral spirits | MNS | 33 | D | D | | A | Yes | 1 | |
| Myrcene | MRE | 30 | D | D | | A | Yes | 1 | |
| Naphtha: Heavy | NAG | 33 | D | # | | A | Yes | 1 | |
| Naphtha: Petroleum | PTN | 33 | D | # | | A | Yes | 1 | |
| Naphtha: Solvent | NSV | 33 | D | D | | A | Yes | 1 | |
| Naphtha: Stoddard solvent | NSS | 33 | D | D | | A | Yes | 1 | |
| Naphtha: Varnish makers and painters (75%) | NVM | 33 | D | C | | A | Yes | 1 | |
| Nonane (all isomers), see Alkanes (C6-C9) | NAX | 31 | D | D | | A | Yes | 1 | |
| Nonene (all isomers) | NON | 30 | D | D | | A | Yes | 2 | |
| Nonyl alcohol (all isomers) | NNS | 20 [2] | D | E | | A | Yes | 1 | |
| Nonyl phenol | NNP | 21 | D | E | | A | Yes | 1 | |
| Nonyl phenol poly(4+)ethoxylates | NPE | 40 | D | E | | A | Yes | 1 | |
| Octane (all isomers), see Alkanes (C6-C9) | OAX | 31 | D | C | | A | Yes | 1 | |
| Octanoic acid (all isomers) | OAY | 4 | D | E | | A | Yes | 1 | |
| Octanol (all isomers) | OCX | 20 [2] | D | E | | A | Yes | 1 | |
| Octene (all isomers) | OTX | 30 | D | C | | A | Yes | 2 | |
| Oil, fuel: No. 2 | OTW | 33 | D | D/E | | A | Yes | 1 | |
| Oil, fuel: No. 2-D | OTD | 33 | D | D | | A | Yes | 1 | |

# *Certificate of Inspection*

## *Cargo Authority Attachment*

Vessel Name: **MMI 2804**
Official #: 1167652



Shipyard: Jeffboat
Hull #: 04-2246

| Cargo Identification | | | | | | Conditions of Carriage | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Vapor Recovery* | | |
| Name | Chem Code | Compat Group | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction |
| Oil, fuel: No. 4 | OFR | 33 | D | D/E | | A | Yes | 1 | |
| Oil, fuel: No. 5 | OFV | 33 | D | D/E | | A | Yes | 1 | |
| Oil, fuel: No. 6 | OSX | 33 | D | E | | A | Yes | 1 | |
| Oil, misc: Crude | OIL | 33 | D | C/D | | A | Yes | 1 | |
| Oil, misc: Diesel | ODS | 33 | D | D/E | | A | Yes | 1 | |
| Oil, misc: Lubricating | OLB | 33 | D | E | | A | Yes | 1 | |
| Oil, misc: Residual | ORL | 33 | D | E | | A | Yes | 1 | |
| Oil, misc: Turbine | OTB | 33 | D | E | | A | Yes | 1 | |
| alpha-Pinene | PIO | 30 | D | D | | A | Yes | 1 | |
| beta-Pinene | PIP | 30 | D | D | | A | Yes | 1 | |
| Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether | PAG | 40 | D | E | | A | Yes | 1 | |
| Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate | PAF | 34 | D | E | | A | Yes | 1 | |
| Polybutene | PLB | 30 | D | E | | A | Yes | 1 | |
| Polypropylene glycol | PGC | 40 | D | E | | A | Yes | 1 | |
| iso-Propyl acetate | IAC | 34 | D | C | | A | Yes | 1 | |
| n-Propyl acetate | PAT | 34 | D | C | | A | Yes | 1 | |
| iso-Propyl alcohol | IPA | 20 [2] | D | C | | A | Yes | 1 | |
| n-Propyl alcohol | PAL | 20 [2] | D | C | | A | Yes | 1 | |
| Propylbenzene (all isomers) | PBY | 32 | D | D | | A | Yes | 1 | |
| iso-Propylcyclohexane | IPX | 31 | D | D | | A | Yes | 1 | |
| Propylene glycol | PPG | 20 [2] | D | E | | A | Yes | 1 | |
| Propylene glycol methyl ether acetate | PGN | 34 | D | D | | A | Yes | 1 | |
| Propylene tetramer | PTT | 30 | D | D | | A | Yes | 1 | |
| Sulfolane | SFL | 39 | D | E | | A | Yes | 1 | |
| Tetraethylene glycol | TTG | 40 | D | E | | A | Yes | 1 | |
| Tetrahydronaphthalene | THN | 32 | D | E | | A | Yes | 1 | |
| Toluene | TOL | 32 | D | C | | A | Yes | 1 | |
| Tricresyl phosphate (less than 1% of the ortho isomer) | TCP | 34 | D | E | | A | Yes | 1 | |
| Triethylbenzene | TEB | 32 | D | E | | A | Yes | 1 | |
| Triethylene glycol | TEG | 40 | D | E | | A | Yes | 1 | |
| Triethyl phosphate | TPS | 34 | D | E | | A | Yes | 1 | |
| Trimethylbenzene (all isomers) | TRE | 32 | D | {D} | | A | Yes | 1 | |
| Trixylenyl phosphate | TRP | 34 | D | E | | A | Yes | 1 | |
| Undecene | UDC | 30 | D | D/E | | A | Yes | 1 | |
| 1-Undecyl alcohol | UND | 20 | D | E | | A | Yes | 1 | |
| Xylenes (ortho-, meta-, para-) | XLX | 32 | D | D | | A | Yes | 1 | |

# *Certificate of Inspection*

## *Cargo Authority Attachment*



### Explanation of terms & symbols used in the Table:

**Cargo Identificatio**

| | |
|---|---|
| Name | The proper shipping name as listed in 46 CFR Table 30.25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2. |
| Chem Code | The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual. |
| none | Certain mixtures of cargoes may not have a CHRIS Code assigned. |
| Compatability Group No. | The cargo reactive group number assigned for compatibility determinations in 46 CFR Part 150 Tables I and II. In accordance with 46 CFR 150.130, the Person-in-Charge of the barge is responsible for ensuring that the compatibility requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number. |
| Note 1 | Because of the very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (G-MSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. |
| Note 2 | Telephone (202) 267-1217. |
| | See Appendix I to 46 CFR Part 150 - exceptions to the compatability chart. |
| Subchapter | The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified. |
| Subchapter D | Those flammable and combustible liquids listed in 46 CFR Table 30.25-1. |
| Subchapter O | Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2. |
| Note 3 | Those cargoes listed in 46 CFR Part 153 Table 2 are non-regulated cargoes when carried in bulk on non-oceangoing barges. |
| Grade | The cargo classification assigned to each flammable or combustible liquid. Grades inside of "{ }" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo. |
| A, B, C | Flammable liquid cargoes, as defined in 46 CFR 30-10.22. |
| D, E | Combustible liquid cargoes, as defined in 46 CFR 30-10.15. |
| Note 4 | The flammability/combustibility grade of these cargoes may vary depending upon the flashpoint and Reid vapor pressure. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo. |
| NA | Those subchapter O cargoes which are not classified as a flammable or combustible liquid. |
| # | No flammability/combustibility grade has been assigned yet,as the necessary flash point/vapor pressure data for such assignments are presently not available. |
| Hull Type | The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1. |
| I | Designed to carry products which require the maximum preventive measures to preclude the uncontrolled release of the cargo. See 46 CFR 151.10-1(b)(1). |
| II | Designed to carry products which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3). |
| III | Designed to carry products of sufficeint hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4). |
| NA | Not applicable to barges certificated under Subchapter D. |

**Conditions of Carriag**

| | |
|---|---|
| Tank Group | The vessel's tank group (as defined in Section 4) which is authorized for carriage of the named cargo. |
| Vapor Recovery Approved (Y or N) | Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo.<br>No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. |

**Conditions of Carriag**

| | |
|---|---|
| Tank Group | The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. |
| Vapor Recovery Approved (Y or N) | Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo.<br>No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. |
| VCS Category: | The specified cargo's provisional classification for vapor control systems. |
| Category 1 | (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.20-11) and the pressure drop calculations (46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates. |
| Category 2 | (Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety componenets and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuring all VCS safety components are functional and polymer build-up is not causing an unsafe condition due to increased pressure in the vapor control piping and cargo tanks. The method shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation |
| Category 3 | (Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39.20-9. This requirement is in addition to the requirements of Category 1. |
| Category 4 | (Polymerizes and highly toxic) Must comply with requirements of Categories 1, 2 and 3. |
| Category 5 | (High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 1cargoes. Consult the Marine Safety Center's VCS Guidelines for further information. This requirement is in addition to the requirements of Category 1. |
| Category 6 | (High vapor pressure and highly toxic) Must comply with requirements of Categories 1, 3 and 5. |
| Category 7 | (High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5. |
| none | The cargo has not been evaluated/classified for use in vapor control systems. |