

UNITED STATES OF AMERICA . U.S. DEPARTMENT OF HOMELAND SECURITY UNITED STATES COAST GUARD

TEMPORARY CERTIFICATE OF INSPECTION

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number.

The Coast Guard estimates that the average burden for this report is 5 mins. You may submit any comments concerning the accuracy of this burden estimate or any suggestion reducing the burden to: Commandant (G-MOC), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (1625-0057), Washington, DC 20503,.

This Temporary Certificate of Inspection is issued under the provisions 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.

| inspection. | | | |
|-----------------------------------|-------------------------------|--|--|
| VESSEL KILBY 10543 | | OFFICIAL | 5 NE 200 1 |
| | 1 35 35 35 35 35 | 12400 | 89 |
| CLASS TANK BALGE | GROSS TONS | HOME PORT WILMINGTON, DE | |
| OWNER/ADDRESS | . /03 | OPERATOR/ADDRESS | |
| KIMBY WUAND MARINE LP | | KIMBY INLAND MARINE LP | |
| 7. St. 1803 S | | 16402 1/2 DEZAMALA | |
| 18350 MANKET ST | | CHANNEWIEW, TX 17539 | 8 |
| CHAMMELVIEW TX 77530 | | UNITED STATES | |
| UNITED STATES | | I amount to the same of the sa | |
| | | equired to be carried; included in | |
| | Certificated Lifeboatment an | | 7 |
| Master · U Master 1st Cla | & 5 Pilot | nen Chief Engineer | U Fireman/ Watertenders |
| Class F | Pilot Ordinary S | seamen 5 1st Asst. Engineer | Oilers |
| 2nd Mate TRadio (| | -6 | |
| | | | The second secon |
| | Operator(s) | 5 Engineer(s) | |
| In addition the vessel m | av carny Ü other ne | rsons in the crew,pa | csenners Ü |
| persons in addition to the crew, | | . Total persons al | |
| percono in addition to the orati, | | | |
| Maximum steam pressure allow | ed <u>N/A</u> p.s.i. | | YDOCKED SEPT 17 |
| ROUTE PERMITTED AND CONDITION | S OF OPERATION | | , |
| | | | |
| | SEE PROXY | | ₽ 3.0 |
| _ | DEC 11/2/ | | |
| 30 | | | |
| | | | |
| | | _ | And the second s |
| INSPECTED AND APPROVED FOR TH | IE CARRIAGE OF | | |
| | | | |
| | SEE Proxy | | |
| * | | | |
| | | | |
| | vessel was completed on | | Y CERTIFY that on this |
| thereunder | cts in conformity with applic | cable vessel inspection laws and | regulations prescribed |
| OFFICERIN CHARGE MARINE INSPE | ECTION | INSPECTION ZONE | |
| | - Town of allow | Houston - GAL | wi-ston |
| | | 1,100710 6/10 | |

U.S. DEFT. OF HOMELAND SECURITY, USCG - CG-854 (Rev. 06-04) Original PREVIOUS EDITIONS ARE OBSOLETE



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

Certification Date: 25 Sep 2017 Expiration Date: 25 Sep 2018

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 the 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.

| | receipt on board | said vessel of the o | aginal certificate of inspi | scholl, and ceranoal | E III 110 Case to be ve | no diter one year note a | o data et moperation | |
|----------------------|---------------------------------|----------------------|-----------------------------|--|-------------------------|--------------------------|---------------------------------------|-------------------|
| Vessel Name | | | Official Number | IMO Nu | mber | Call Sign | Service | |
| KIRBY 10543 | ì | | 1240084 | | | | Tank Ba | rge |
| /ti/to/ | | | | | | | | |
| | | | | | g alsk ming | | | |
| Hailing Port | 2 | | V2017/2002 No. 12 20 | | . W 1085 | | | |
| WILMINGTO | N. DE | | Huli Material | Ho | rsepower | Propulsion | | |
| () ILIUM IO I O | | | Steel | | | | | |
| UNITED STA | TES | | | • | | | - | |
| OMITED OTH | 1120 | | | | | | | |
| | | | | | | | | |
| Place Built | | | Delivery Date | Keel Laid Date | Gross Tons | Net Tons | DWT | Length |
| ASHLAND C | ITY, TN | | 07Aug2012 | 18Jul2012 | R-705 | R-705 | | R-200.0 |
| | | | 07Aug2012 | 100012012 | l- | i- | | 1-0 |
| UNITED STA | TES | | | | | | | |
| | | | | | | | | |
| Owner | | | | Ope | ator | • | | |
| KIRBY INLAN | ID MARINE L | P | | KIF | RBY INLAND | MARINE, LP | | |
| 18350 Market | | | | | 402 1/2 DEZ/ | | | |
| Channelview, | | | | | IANNELVIEV | | | |
| UNITED STA | TES | | | UN | IITED STATE | :5 | | |
| | | | | | | | 1 . 1 . 1 | |
| This vessel m | ust be manne | d with the fo | llowing licensed | and unlicens | sed Personne | el. Included in W | nich there mu | ist be |
| 0 Certified Life | epoatmen, u | Jenned ran | kermen, 0 HSC | Type Raung | | | | ··· |
| 0 Masters | | O Licensed Ma | ates 0 Chief | Engineers | 0.0 | Dilers | | |
| 0 Chief Mates | S | 0 First Class I | Pilots 0 First | Assistant Engir | eers | | | |
| 0 Second Ma | fes | 0 Radio Office | ers 0 Seco | nd Assistant Er | ngineers | | | |
| 0 Third Mates | 9 | 0 Able Seame | n O Third | Assistant Engi | neers | | | |
| 0 Master Firs | t Class Pilot | 0 Ordinary Se | amen 0 Licen | sed Engineers | | | | |
| 0 Mate First 0 | Class Pilots | 0 Deckhands | 0 Quali | ified Member E | ngineer | | | |
| In addition, th | is vessel mav | carry 0 Pass | sengers, 0 Othe | r Persons in | crew, 0 Perso | ons in addition t | o crew, and n | o Others. Total |
| Persons allow | | | | | | | | |
| Doute Perm | nitted And Co | nditions Of | Operation: | | | | <u></u> | |
| 5- MARCO ASSOCIATION | | | | | | | | |
| Lakes, | Bays, and | Sounds- | alog alogs | | | | | |
| Also in fai | r weather or | lv. limite | d coastwise, n | ot more tha | n twelve (1 | .2) miles from | shore betwe | en St. Marks and |
| Carrabelle, | | | 15 Totalismon 9.5 | | | | | |
| This reseal | has been ora | nted a fre | sh water servi | ice examinat | ion interva | l in accordan | ce with 46 (| FR 31,10-21(a) |
| (2) If this | vessel is c | perated in | salt water mo | ore than 6 t | nonths in an | ly 12 month pe | riod, the ve | essel must be |
| inspected us | sing salt wat | er interva | ls per 46 CFR | 31.10-21(a | (1) and the | e cognizant OC | MI must be r | otified in |
| 1 | | | status occurs. | | | | | |
| This tank ba | ırge is parti | cipating i | n the Eighth-D | Winth Coast | Guard Distr | cict's Tank Ba | rge Streamli | ned Inspection |
| | /= DA OF FO | D ADDITIO | NAL CERTIFIC | CATE INICO | DRAATIONS* | * | | |
| | ANNALY DE UNICEDITATION DE EAST | | | A CONTRACTOR OF THE CONTRACTOR | | | | |
| With this Insp | ection for Cer | tification hav | ing been compl | leted at Free | port, TX, UNI | TED STATES, | the Officer in | Charge, Marine |
| Inspection, Ho | ouston-Gaives | iton certified | tne vessel, in a | ii respects, is | in contormit | y with the applic | able vessel If | spection laws and |
| the rules and | | | | | Trisis a sir | -to innued by | · · · · · · · · · · · · · · · · · · · | |
| | | riodic/Re-Ins | | | i nis certifica | ate issued by: | | |
| Date | Zone | A/P/R | Signati | ure | | | | |
| | | | | | Officer in Charge, | Marine Inspection | | |
| | | | | | | Housto | n-Galveston | |
| | | | | | Inspection Zone | | | |
| | | 1 1 | | | | | | |



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

Certification Date: 25 Sep 2017 Expiration Date: 25 Sep 2018

Temporary Certificate of Inspection

Vessel Name: KIRBY 10543

Program (TBISP). Inspection activities aboard this barge shall be conducted in accordance with its tank barge action plan. Inspection issues concerning this barge should be directed to OCMI Houston - Galveston

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

31Aug2027

11Sep2017

07Aug2012

Internal Structure

31Aug2022

11Sep2017

07Aug2012

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

Authorization:

FLAMMABLE / COMBUSTIBLE LIQUIDS AND SPECIFIED HAZARDOUS CARGOES

Total Capacity

Units

Highest Grade Type Part151 Regulated Part153 Regulated Part154 Regulated

10300

Barrels

Yes

No

No

Hazardous Bulk Solids Authority

Loading Constraints - Structural

| ļ | Tank Number | Max Cargo Weight per Tank (short tons) | Maximum Density (lbs/gal) |
|---|-------------|--|---------------------------|
| - | 1 | 763 | 13.57 |
| | 2 | 703 | 13.57 |
| | 3 | 698 | 13.57 |

Loading Constraints - Stability

| Hull Type | Maximum Load (short tons) | Maximum Draft (ft/in) | Max Density (lbs/gal) | Route Description |
|-----------|---------------------------|--------------------------|--------------------------|-------------------|
| III | 1551 | 9ft 6in | 11.03 | R, LBS |
| III | 1497 | 9ft 3in | 12.08 | R, LBS |
| III | 1443 | 9ft Oin | 12.91 | R, LBS |
| III | 1390 | 8ft 9in | 13.57 | R, LBS |
| II | 1443 | 9ft Oin | 9.99 | Ř, LBS |
| II | 1390 | 8ft 9in | 11.66 | R, LBS |
| II | 1336 | 8ft 6in | 12.41 | R, LBS |
| 11 . | 1283 | 8ft 3in | 12.83 | R, LBS |
| | 1229 | 8ft Oin | 13.33 | R, LBS |
| [[| 1176 | 7ft 9in | 13.57 | R, LBS |

Conditions Of Carriage

Only those cargoes named in the vessel's Cargo Authority Attachment may be carried, and then only in the tanks indicated. When the vessel is carrying cargoes containing greater than 0.5% benzene, the person in charge is responsible for ensuring the provisions of 46 US Code of Federal Regulations Part 197, Subpart C are applied.

Per 46 CFR 150.130, the Person In Charge of the vessel 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 9 99 lbs/gal



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

Certification Date: 25 Sep 2017 Expiration Date: 25 Sep 2018

Temporary Certificate of Inspection

Vessel Name: KIRBY 10543

Per 46 CFR 151.10-15(c)(2) the max. tank weights listed below reflect uniform (within 5%) loading at the deepest draft allowed. When carrying Subchapter O cargoes at shallower drafts, the barge(s) should always be loaded uniformly.

Vapor Control Authorization

In accordance with 46 CFR Part 39, excluding part 39.40, this vessel's vapor collection system has been inspected to the plans approved by Marine Safety Center letter Serial # C1-1202419 dated May 11, 2012, and has been found acceptable for the collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column of the vessel's Cargo Authority Attachment. The VCS system has been approved with a pressure side 6 psig P/V valve with the Coast Guard Approval 162.017/167/4. The cargo tank top is suitable for a maximum allowable working pressure (MAWP) of 6.5 psi. When the vessel is carrying cargoes containing greater than 0.5% benzene, the person in charge is responsible for ensuring the provisions of 46 US Code of Federal Regulations Part 197, Subpart C are applied.

--- Inspection Status ---

Fuel Tanks

Internal Examinations

Tank ID Previous

s Last Next

07Aug2012 -

Cargo Tanks

Forward Machinery Deck

| | Internal Exam | | | External Exan | n | |
|---------|---------------|-----------|------------|---------------|------------|------|
| Tank Id | Previous | Last | Next | Previous | Last | Next |
| 1 | 07Aug2012 | 11Sep2017 | 31Aug2027 | 7 2 32 | 4 / | |
| 2 | 07Aug2012 | 11Sep2017 | 31Aug2027 | | | * |
| 3 | 07Aug2012 | 11Sep2017 | 31Aug2027 | - | _ | ~ |
| | | | Hydro Test | | | |
| Tank Id | Safety Valves | i | Previous | Last | Next | |
| 1 | - | | | | | |
| 2 | - | | - | W ' | - | |
| 2 | | | | _ | | |

---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



Senai#: (Dated:

C1-1203931 12-Sep-12

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10543

Shipyard: Trinity Marine, Ashland

Hull #: 4835

Official #: 1240084

| Tank Group Information | Cargo I | dentificati | on | | Caroo | | Tanks | | Carg Trans | | Enviror Control | nmental I | Fire | Special Require | ments | | |
|---------------------------|---------|-------------|-------|-------------|------------|---------------------|-------|--------|---------------|------|--------------------|-------------------|------------------------|--|---|-------------|--------------|
| Tnk Grp Tanks in Group | Density | Press. | Temp. | Hull Typ | Seq | Туре | Vent | Gauge | Pipe Class | Cont | Tanks | Handling Space | Protection Provided | General | Materials of Construction | Elec Haz | Temp Cont |
| A #1C, #2C, #3C | 13.6 | Atmos. | Elev | п | 1ii 2ii | Integral Gravity | PV | Closed | 11 | G-1 | NR | NA | Portable | 40-1(f)(1), .50-60, .50-70(a), .50- 70(b), .50-73, .50- 81(a), .50-81(b), | 55-1(e), (f), (h), 56- 1(a), (b), (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 Identificatio | Conditions of Carriage | | | | | | | | | |
|---|------------------------|----------------------|----------------|-------|--------------|---------------|----------|-----------------|---|-----------------|
| 4 | 1 | | | | | | Vapor Re | | - | |
| Name | Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | (Y or N) | VCS Calegory | Special Requirements in 45 CFR 151 General and Mat'ls of | Insp. Period |
| Authorized Subchapter O Cargoes | | | ente milaena | | | | | | | |
| Acetonitrile | ATN | 37 | 0. | С | 111 | Α | Yes | 3 | No | G |
| Acrylonitrile | ACN | 15 ² | 0 | С | 11 | Α | Yes | 4 | ,50-70(a), .55-1(e) | G |
| Adiponitrile | ADN | 37 | 0 | E | 11 | Α | Yes | 1 | No | G |
| Alkyl(C7-C9) nitrates | AKN | 34 2 | 0 | NA | Ш | Α | No | N/A | .50-81, .50-86 | G |
| Anthracene oil (Coal tar fraction) | AHO | 33 | 0 | NA | | Α | No | N/A | No | G |
| Benzene | BNZ | 32 | 0 | С | | Α | Yes | 1 | .50-60 | G |
| Benzene or hydrocarbon mixtures (having 10% Benzene or more) | внв | 32 ² | 0 | С | 111 | Α | Yes | 1 | .50-60 | G |
| Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more) | ВНА | 32 ² | 0 | С | 101 | Α | Yes | 1 | .50-60, .56-1(b), (d), (f), (g) | G |
| Benzene, Toluene, Xylene mixtures (10% Benzene or more) | BTX | 32 | 0 | B/C | 111 | Α | Yes | 1 | .50-60 | G |
| Butyl acrylate (all isomers) | BAR | 14 | 0 | D | Itt | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Butyl methacrylate | ВМН | 14 | 0 | D | 111 | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Butyraldehyde (all isomers) | BAE | 19 | 0 | С | 111 | Α | Yes | 1 | .55-1(h) | Ģ |
| Camphor oil (light) | CPO | 18 | 0 | D | 11 | Α | No | N/A | No | G |
| Carbon tetrachloride | CBT | 36 | 0 | NA | 111 | Α | No | N/A | No | G |
| Chemical Oil (refined, containing phenolics) | COD | 21 | 0 | Ε | 11 | Α | No | N/A | .50-73 | G |
| Chlorobenzene | CRB | 36 | 0 | D | 111 | Α | Yes | 1 | No | G |
| Chloroform | CRF | 36 | 0 | NA | 111 | Α | Yes | 3 | No | G |
| Coal tar naphtha solvent | NCT | 33 | 0 | D | 111 | Α | Yes | 1 | ,50-73 | G |
| Coal tar pitch (molten) | CTP | 33 | 0 | E | Ш | Α | No | N/A | .50-73 | G |
| Creosote | CCW | 21 2 | 0 | E | 111 | Α | Yes | 1 | No | G |
| Cresols (all isomers) | CRS | 21 | 0 | Е | 111 | Α | Yes | 1 | No | G |
| Cresylic acid tar | CRX | Secretary Control of | 0 | E | 111 | Α | Yes | 1 | .55-1(f) | G |
| Crotonaldehyde | CTA | 19 2 | 0 | С | II | Α | Yes | 4 | .55-1(h) | G |
| Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein) | CHG | | 0 | С | 111 | Α | No | N/A | Nв | G |
| Cyclohexanone | CCH | 18 | 0 | D | 111 | Α | Yes | 1 | .56-1(a), (b) | G |
| Cyclohexanone, Cyclohexanol mixture | CYX | 18 2 | 0 | E | 111 | Α | Yes | 1 | .56-1 (b) | G |
| Cyclopentadiene, Styrene, Benzene mixture | CSB | 30 | 0 | D | 111 | Α | Yes | 1 | .50-80, .56-1(b) | G |
| Dichlorobenzene (all isomers) | DBX | 36 | 0 | E | 111 | Α | Yes | 3 | .56-1(a), (b) | G |
| 1,1-Dichloroethane | DCH | 36 | 0 | С | 111 | Α | Yes | 1 | No | G |
| 2,2'-Dichloroethyl ether | DEE | 41 | 0 | D | u | Α | Yes | 1 | .55-1(f) | G |
| Dichloromethane | DCM | 36 | 0 | NA | 111 | Α | Yes | 5 | No | G |



Serial #: C1-1203931 Dated: 12-Sep-12

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10543
Official #: 1240084

Page 2 of 7

Shipyard: Trinity Marine, Ashland City

Hull #: 4835

| Cargo Identifica | ation | | | | | | - | | ions of Carriage | |
|--|---------------------|--------------------------|---------------------|------------|--------------|--------------------|--------------------|-----------------|---|-------|
| Name | Chem Code DPB | Compat Group No 36 | Sub Chapter O | Grade C | Hull Tvoe | Tank Group A | App'd (Y or N) Yes | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of No | Insp. |
| 1,1-Dichloropropane | DPP | 36 | 0 | C | | | | | Na | G |
| 1,2-Dichloropropane | DPC | - | 0 | C | []] | Α | Yes | 3 | No | G |
| 1,3-Dichloropropane | | 36 | | | - 111 | Α | Yes | 3 | Na | |
| 1,3-Dichloropropene | DPU | 15 | 0 | D | - 11 | A | Yes | 4 | No | G |
| Dichloropropene, Dichloropropane mixtures | DMX | 15 | 0 | C | 11 | Α. | Yes | 1 | | G |
| N,N-Dimethylacetamide | DAC | 10 | 0 | E | . 111 | A | Yes | 3 | .56-1(b) | G |
| Dimethylformamide | DMF | 10 | 0 | D | 111 | Α | Yes | 1 | .55-1(e) | G |
| Dodecyldimethylamine, Tetradecyldimethylamine mixture | DOT | 7 | 0 | E | 111 | Α | No | N/A | .56-1(b) | G |
| Dodecyl diphenyl ether disulfonate solution | DOS | 43 | 0 | # | - 11 | Α | No | N/A | No | G |
| EE Glycol Ether Mixture | EEG | 40 | 0 | D | 111 | Α | No | N/A | No | G |
| Ethyl acrylate | EAC | 14 | 0 | С | III | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Ethylene cyanohydrin | ETC | 20 | 0 | E | 111 | Α | Yes | 1 | No | G |
| Ethylene dichloride | EDC | 36 ² | 0 | C | 111 | Α | Yes | 1 | Na | G |
| Ethylene glycol hexyl ether | EGH | 40 | 0 | E | 111 | Α | No | N/A | No | G |
| Ethylene glycol monoalkyl ethers | EGC | 40 | 0 | D/E | 111 | Α | Yes | 1 | No | G |
| Ethylene glycol propyl ether | EGP | 40 | 0 | E | Ш | Α | Yes | 1 | No | G |
| 2-Ethylhexyl acrylate | EAI | 14 | 0 | E | Ш | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Ethyl methacrylate | ETM | 14 | 0 | D/E | - 111 | Α | Yes | 2 | .50-70(a) | G |
| 2-Ethyl-3-propylacrolein | EPA | 19 ² | 0 | E | 111 | Α | Yes | 1 | No | G |
| Formaldehyde solution (37% to 50%) | FMS | 19 ² | 0 | D/E | 111 | Α | Yes | 1 | .55-1(h) | G |
| Furfural | FFA | 19 | 0 | D | 111 | Α | Yes | 1 | .55-1(h) | G |
| Glutaraldehyde solution (50% or less) | GTA | 19 | 0 | NA | 111 | Α | No | N/A | No | G |
| Hydrocarbon 5-9 | HFN | | 0 | С | 111 | Α | Yes | 1 | .50-70(a), .50-81(a), (b) | G |
| Isoprene | IPR | 30 | 0 | Α | 111 | Α | Yes | 7 | .50-70(a), .50-81(a), (b) | G |
| Mesityl oxide | MSO | 18 2 | 0 | D | 111 | Α | Yes | 1 | No | G |
| Methyl acrylate | MAM | 14 | 0 | С | 111 | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Methylcyclopentadiene dimer | MCK | 30 | 0 | С | 111 | Α | Yes | 1 | No | G |
| 2-Methyl-5-ethylpyridine | MEP | 9 | 0 | E | 111 | A | Yes | 1 | .55-1(e) | G |
| Methyl methacrylate | MMM | | 0 | c | 111 | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| alpha-Methylstyrene | MSR | 30 | 0 | D | 111 | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Nitroethane | NTE | 42 | 0 | D | 11 | Α | No | N/A | .50-81, .56-1(b) | G |
| 1- or 2-Nitropropane | NPM | 42 | 0 | D | - 111 | A | Yes | 1 | .50-81 | G |
| 1,3-Pentadiene | PDE | 30 | 0 | A | 111 | A | Yes | 7 | .50-70(a), .50-81 | G |
| Perchloroethylene | PER | 36 | -0 | NA. | 111 | - A | No | N/A | No | G |
| Company of the second of the s | PAN | 11 | 0 | E | 111 | ********** | | | No | G |
| Phthalic anhydride (molten) | PEB | 72 | | E | | Α. | Yes | 1 | .55-1(e) | G |
| Polyethylene polyamines | 1.785100 | | 0 | (005 | 111 | Α | Yes | 1 | 3 3 | |
| Pyridine | PRD | 9 | 0 | C | | A | Yes | 1 | .55-1(e) .50-73 | G |
| Sodium chlorate solution (50% or less) | SDD | 0 1,2 | | NA | 111 | Α | No | N/A | | G |
| Sodium hypochlorite solution (20% or less) | SHQ | 5 | 0 | NA | - 111 | A | No | N/A | .50-73, .56-1(a), (b) | G |
| Styrene (crude) | STX | | 0 | D | - 111 | A | Yes | 2 | No. | G |
| Styrene monomer | STY | 30 | 0 | D | 111 | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| 1,1,2,2-Tetrachloroethane | TEC | 36 | 0 | NA | 111 | Α | No | N/A | | G |
| Tetrahydrofuran | THF | 41 | 0 | С | 111 | Α | Yes | 1 | .50-70(b) | G |
| 1,2,4-Trichlorobenzene | TCB | 36 | 0 | E | 111 | Α | Yes | 1 | No | G |
| 1,1,2-Trichloroethane | TCM | 36 | 0 | NA | 111 | Α | Yes | 1 | .50-73, .56-1(a) | G |
| Trichloroethylene | TCL | 36 ² | 0 | NA | 111 | Α | Yes | 1 | No | G |
| 1,2,3-Trichloropropane | TCN | 36 | 0 | E | 11 | Α | Yes | 3 | .50-73, .56-1(a) | G |
| Triethylamine | TEN | 7 | 0 | С | 11 | Α | Yes | 3 | ,55-1(e) | G |

Certificate of Inspection

Cargo Identification

Cargo Authority Attachment

Vessel Name: KIRBY 10543

Shipyard: Trinity Marine,

Conditions of Carriage

Ashland City

Official #: 1240084

Page 3 of 7

Hull #: 4835

| Cargo identificado | 11 | | | | | | | Conan | ions of Carriage | |
|---|---------------------|-------------------------|---------------------|-------------|---------------------|--------------------|------------------------------------|------------------------|---|----------------------|
| Name Urea, Ammonium nitrate solution (containing more than 2% NH3) | Chem Code UAS | Compat Group No 6 | Sub Chapter O | Grade NA | Hull Type III | Tank Group A | Vapor F App'd (Y or N) No | VCS Category N/A | Special Requirements in 46 CFR 151 General and Mat'ls of .56-1(b) | Insp. Period G |
| Vinyl acetate | MAV | 13 | 0 | С | 111 | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Vinyl neodecanate | VND | 13 | 0 | E | Ш | Α | No | N/A | .50-70(a), .50-81(a), (b) | G |
| Subchapter D Cargoes Authorized for Vapor Contr | ol | | | | | | 100 | | | |
| Acetone | ACT | 18 ² | D | С | | Α | Yes | 1 | | |
| Acetophenone | ACP | 18 | D | E | | Α | Yes | 1 | | 1811-1800-1800 |
| Alcohol(C12-C16) poly(1-6)ethoxylates | APU | 20 | D | E | | Α | Yes | 1 | | |
| Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates | AEB | 20 | D | E | | Α | Yes | 1 | | |
| Amyl acetate (all isomers) | AEC | 34 | D | D | | Α | Yes | 1 | | |
| Amyl alcohol (iso-, n-, sec-, primary) | AAI | 20 | D | D | | Α | Yes | 1 | | |
| Benzyl alcohol | BAL | 21 | D | E | | Α | 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 | Ť | Α | Yes | 1 | | |
| Butyl acetate (all isomers) | BAX | 34 | D | D | | Α | Yes | 1 | | |
| Butyl alcohol (iso-) | IAL | 20 ² | D | D | | Α | Yes | 1 | | |
| Butyl alcohol (n-) | BAN | 20 ² | D | D | -74 | Α | Yes | 1 | | |
| Butyl alcohol (sec-) | BAS | 20 ² | D | С | | Α | Yes | 1 | | |
| Butyl alcohol (tert-) | BAT | | D | С | | Α | Yes | 1 | | |
| Butyl benzyl phthalate | BPH | 34 | D | E | | Α | Yes | 1 | | |
| Butyl toluene | BUE | 32 | D | D | | Α | Yes | 1 | | |
| Caprolactam solutions | CLS | 22 | D | E | | Α | Yes | 1 | | |
| Cyclohexane | CHX | 31 | D | С | | Α | Yes | 1 | | |
| Cyclohexanol | CHN | 20 | D | E | | Α | Yes | 1 | | |
| 1,3-Cyclopentadiene dimer (molten) | CPD | 30 | D | D/E | | Α | Yes | 2 | | |
| p-Cymene | CMP | 32 | D | D | | Α | Yes | 1 | | |
| iso-Decaldehyde | IDA | 19 | D | E | | Α | Yes | 1 | | |
| n-Decaldehyde | DAL | 19 | D | E | | Α | Yes | 1 | | |
| Decene | DCE | 30 | D | D | | Α | Yes | 1 | | |
| Decyl alcohol (all isomers) | DAX | 20 ² | D | E | | Α | Yes | 1 | | |
| n-Decylbenzene, see Alkyl(C9+)benzenes | DBZ | 32 | D | E | | Α | Yes | 1 | | |
| Diacetone alcohol | DAA | 20 2 | D | D | | Α | Yes | 1 | | |
| ortho-Dibutyl phthalate | DPA | 34 | D | E | | Α | Yes | . 1 | P1533W | |
| Diethylbenzene | DEB | 32 | D | D | | Α | Yes | 1 | | |
| Diethylene glycol | DEG | 40 ² | D | E | | Α | Yes | 1 | | |
| Diisobutylene | DBL | 30 | D | С | | Α | Yes | 1 | | |
| Diisobutyl ketone | DIK | 18 | D | D | | Α | Yes | 1 | | _ |
| Diisopropylbenzene (all isomers) | DIX | 32 | D | E | | Α | Yes | 1 | | |
| Dimethyl phthalate | DTL | 34 | D | E | | Α | Yes | 1 | | |
| Dioctyl phthalate | DOP | 34 | D | E | | Α | Yes | 1 | | |
| Dipentene | DPN | 30 | D | D | | Α | Yes | 1 | | |
| Diphenyl | DIL | 32 | D | D/E | | Α | Yes | 1 | | |
| Diphenyl, Diphenyl ether mixtures | DDO | 33 | D | Е | | Α | Yes | 1 | | |
| Diphenyl ether | DPE | 41 | D | {E} | | Α | Yes | 1 | | |
| Dipropylene glycol | DPG | 40 | D | E | | Α | Yes | 1 | | |
| Distillates: Flashed feed stocks | DFF | 33 | D | E | | Α | Yes | 1 | | |
| | 120020 | | - | - | | | - | | | |
| Distillates: Straight run | DSR | 33 | D | E | | Α | Yes | 1 | | |

Serial #: C1-1203931

Dated: 12-Sep-12



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10543

Shipyard: Trinity Marine,

Ashland City Hull #: 4835

Official #: 1240084

Page 4 of 7

Cargo Identification Conditions of Carriage Vapor Recovery Compat Sub VCS Special Requirements in 46 CFR Category 151 General and Mat'ls of Code Name Grade Gmun Dodecylbenzene, see Alkyl(C9+)benzenes 32 D 2-Ethoxyethyl acetate EEA 34 D D A Yes Ethoxy triglycol (crude) ETG 40 D E Yes Ethyl acetate ETA 34 D C Yes Ethyl acetoacetate EAA 34 D F Ethyl alcohol EAL 20 2 D C Yes Ethylbenzene ETB 32 D C A Yes Ethyl butanol EBT 20 D D Yes Ethyl tert-butyl ether EBE D C 41 A Yes Ethyl butyrate EBR D D A Yes Ethyl cyclohexane ECY 31 D D A Yes Ethylene glycol EGL 20 2 D E A Yes Ethylene glycol butyl ether acetate **EMA** 34 D E A Yes Ethylene glycol diacetate EGY 34 D E A Yes Ethylene glycol phenyl ether D E A Yes Ethyl-3-ethoxypropionate EEP D D A Yes 2-Ethylhexanol 20 D E A Yes Ethyl propionate **EPR** A Yes Ethyl toluene ETE A Yes Formamide FAM 10 Yes Furfuryl alcohol FAL A Yes Gasoline blending stocks: Alkylates GAK 33 D A/C Yes Gasoline blending stocks: Reformates GRF 33 A/C A Yes Gasolines: Automotive (containing not over 4.23 grams lead per GAT 33 D C Yes 1 Gasolines: Aviation (containing not over 4.86 grams of lead per GAV 33 D C A gallon) Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C Α Yes Gasolines: Straight run GSR 33 D AC A Yes 1 GCR 20² Glycerine D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C Α 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 E A Yes 1 Hexane (all isomers), see Alkanes (C6-C9) HXS 31 2 D B/C A Yes Hexanoic acid HXO 4 D E A Yes Hexanol HXN 20 D D Yes A 1 Hexene (all isomers) HEX 30 D C A Yes 2 Hexylene glycol HXG D E A Yes 1 Isophorone IPH 18 2 D E A Yes 1 Jet fuel: JP-4 JPF D Ε Yes A 1 Jet fuel: JP-5 (kerosene, heavy) JPV 33 D D A Yes 1 KRS D D A Yes 1 34 D D A Yes 1 Methyl alcohol MAL 20 2 D С A Yes 1 Methylamyl acetate MAC D A Yes Methylamyl alcohol MAA 20 D D A Yes

This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. ***



Serial #: C1-1203931 Dated: 12-Sep-12

Dated:

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10543

Shipyard: Trinity Marine, Ashland City

Hull #: 4835

Official #: 1240084

Page 5 of 7

| Cargo Identifica | ation | | | | | | | Condi | tions of Carriage | |
|--|-------|-----------------|----------------|-------|---|---------------|-------|-----------------|--|-----------|
| | | | | | | | | Recovery | | T |
| Name | Chem | Group No | Sub Chapter | Grade | Hull Type | Tank Groun | App'd | VCS Category | Special Requirements in 46 CFR 151 General and Mat'is of | Insp. |
| Methyl amyl ketone | MAK | 18 | D | D | | Α | Yes | 1 | | |
| Methyl tert-butyl ether | MBE | 41 2 | D | С | | Α | Yes | 1 | 0 | |
| Methyl butyl ketone | MBK | 18 | D | С | NACIONO. | Α | Yes | 1 | | |
| Methyl butyrate | MBU | 34 | D | С | | Α | Yes | 1 | | |
| Methyl ethyl ketone | MEK | 18 ² | D | С | | Α | Yes | 1 | | |
| Methyl heptyl ketone | MHK | 18 | D | D | | Α | Yes | 1 | | |
| Methyl isobutyl ketone | MIK | 18 ² | D | С | | Α | Yes | 1 | | |
| Methyl naphthalene (molten) | MNA | 32 | D | E | 5 73 | Α | Yes | 1 | | |
| Mineral spirits | MNS | 33 | D | D | | . A | Yes | 1 | | |
| Myrcene | MRE | 30 | D | D | | Α | Yes | 1 | | |
| Naphtha: Heavy | NAG | 33 | D | # | | Α | Yes | 1 | | |
| Naphtha: Petroleum | PTN | 33 | D | # | | Α | Yes | 1 | | |
| Naphtha: Solvent | NSV | 33 | D | D | | Α | Yes | 1 | | |
| Naphtha: Stoddard solvent | NSS | 33 | D | D | | Α | Yes | 1 | | |
| Naphtha: Varnish makers and painters (75%) | NVM | 33 | D | С | | Α | Yes | 1 | | |
| Nonane (all isomers), see Alkanes (C6-C9) | NAX | 31 | D | D | - | Α | Yes | 1 | | _ |
| Nonene (all isomers) | NON | 30 | D | D | | Α | Yes | 2 | | - |
| Nonyl alcohol (all isomers) | NNS | 20 2 | D | E | | A | Yes | 1 | | - Company |
| 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 | 712 - 101101 - 12 - 101101 - 11 | |
| 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) | ОТХ | 30 | D | c | in land | A | Yes | 2 | | W |
| Dil, fuel: No. 2 | OTW | 33 | D | D/E | | A | Yes | 1 | And the state of t | |
| Dil, fuel: No. 2-D | OTD | 33 | D | D | | A | Yes | 1 | | |
| Oil, fuel: No. 4 | OFR | 33 | D | D/E | | A | Yes | 1 | | |
| Oil, fuel: No. 5 | OFV | 33 | D | D/E | | A | Yes | | | |
| Dil, fuel: No. 6 | OSX | 33 | D | E | | | | 1 | 0 | |
| Oil, misc: Crude | OIL | 33 | D | C/D | - | A | Yes | 1 | | |
| The state of the s | | | | | | A | Yes | 1 | | |
| Oil, misc: Diesel | ODS | 33 | D | D/E | | Α | Yes | 1 | | |
| Oil, misc: Gas, high pour | OGP | 33 | D | E | | A | Yes | 1 | | |
| Oil, misc: Lubricating | OLB | 33 | D | E | | Α | Yes | 1 | | |
| Oil, misc: Residual | ORL | 33 | D | E | - | Α | Yes | 1 | | |
| Oil, misc: Turbine | ОТВ | 33 | D | E | | Α | Yes | 1 | | |
| Pentene (all isomers) | PTX | 30 | .D | Α | | Α | Yes | 5 | | |
| n-Pentyl propionate | PPE | 34 | D | D | | Α | Yes | 1 | | |
| alpha-Pinene | PIO | 30 | ם | D | | Α | Yes | 1 | | |
| beta-Pinene | PIP | 30 | D | D | | Α | Yes | 1 | | |
| Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether | PAG | 40 | D | E | | Α | Yes | 1 | | |
| Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate | PAF | 34 | D | Е | | Α | Yes | 1 | | |
| Polybutene | PLB | 30 | D | E | | Α | Yes | 1 | | |
| Polypropylene glycol | PGC | 40 | D | E | | Α | Yes | 1 | 4 | |
| so-Propyl acetate | IAC | 34 | D | С | | Α | Yes | 1 | 1) | |
| n-Propyl acetate | PAT | 34 | D | С | | Α | Yes | 1 | | |
| so-Propyl alcohol | IPA | 20 2 | D | С | | Α | Yes | 1 | | |
| n-Propyl alcohol | PAL | 20 2 | D | С | | Α | Yes | 1 | | |
| Propylbenzene (all isomers) | PBY | 32 | D | D | ************ | Α | Yes | 1 | | |

^{***} This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. ***





Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10543 Official #: 1240084

Page 6 of 7

Shipyard: Trinity Marine, Ashland City

Hull #: 4835

| Cargo Identific | ation | | | | | | | Condi | tions of Carriage | |
|--|---------------------|--------------------------|---------------------|------------|--------------|--------------------|--------------------------|----------------------|---|-----------------|
| | | | | | | | Vapor F | Recovery | | |
| Name iso-Propylcyclohexane | Chem Code IPX | Compat Group No 31 | Sub Chaoler D | Grade D | Hull Type | Tank Group A | App'd (Y or N) Yes | VCS Catecory 1 | Special Requirements in 46 CFR 151 General and Mat'ls of | Insp. Perior |
| Propylene glycol | PPG | 20 ² | D | E | | Α | Yes | 1 | | |
| Propylene glycol methyl ether acetate | PGN | 34 | D | D | | Α | Yes | 1 | | |
| Propylene tetramer | PTT | 30 | D | D | | Α | Yes | 1 | | |
| Sulfolane | SFL | 39 | D | E | | Α | Yes | 1 | | - |
| Tetraethylene glycol | TTG | 40 | D | Е | | Α | Yes | 1 | | |
| Tetrahydronaphthalene | THN | 32 | D | Е | | Α | Yes | 1 | | |
| Toluene | TOL | 32 | D | C | | Α | Yes | 1 | | |
| Tricresyl phosphate (less than 1% of the ortho isomer) | TCP | 34 | D | E | | Α | Yes | 1 | | |
| Triethylbenzene | TEB | 32 | D | Е | | Α | Yes | 1 | | |
| Triethylene glycol | TEG | 40 | D | E | | Α | Yes | 1 | | |
| Triethyl phosphate | TPS | 34 | D | E | | Α | Yes | 1 | | |
| Trimethylbenzene (all isomers) | TRE | 32 | D | (D) | | Α | Yes | 1 | | |
| Trixylenyl phosphate | TRP | 34 | D | E | | Α | Yes | 1 | | |
| Undecene | UDC | 30 | D | D/E | | Α | Yes | 1 | | |
| 1-Undecyl alcohol | UND | 20 | D | E | 100 | Α | Yes | 1 | | |
| Xylenes (ortho-, meta-, para-) | XLX | 32 | D | D | | Α | Yes | 1 | | - |



Serial #: C1-1203931

12-Sep-12



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10543

Official #: 1240084

Page 7 of 7

Shipyard: Trinity Marine,

Hull #: 4835

Explanation of terms & symbols used in the Table:

Cargo identification

Chem Code

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.

The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual. 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 competibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number.

Note 1 Note 2 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 (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-

0001. Telephone (202) 372-1425.

See Appendix I to 46 CFR Part 150 - exceptions to the compatability chart.

Subchapter Subchapter D Subchapter O

The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified. Those flammable and combustible liquids listed in 46 CFR Table 30.25-1.

Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2.

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 D, E Note 4 ammable liquid cargoes, as defined in 46 CFR 30-10.22

Combustible liquid cargoes, as defined in 46 CFR 30-10.15.

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.

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

NA

NA

The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1.

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). Designed to carry products which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3). Designed to carry products of sufficient hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4).

Not applicable to barges certificated under Subchapter D.

Conditions of Carriage

Tank Group Vapor Recove Approved (Y or N) The vessel's tank group (as defined in Section 4) which is authorized for carriage of the named cargo.

Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.

Conditions of Carriage

Tank Group Vapor Recover Approved (Y or N) 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.

Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.

VCS Category: Category 1

The specified cargo's provisional classification for vapor control systems.

(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 39.30 and 46 CFR 39.20 tank venting system calculations (46 CFR 39.20-11) and the pressure drop calculations (46 CFR 39.30-16)) must use appropriate friction factors, vepor 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.

Category 4

This requirement is in addition to the requirements of Category 1.

(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 1 cargoes. 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. (High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5.

Category 7

The cargo has not been evaluated/classified for use in vapor control systems.