

18 Feb 2019 Certification Date:

**Expiration Date** 

18 Feb 2024

## Certificate of Inspection Land Control of The Spection Control of the Specific Control of the C

| Value Name   | Official Marris                                 | er M                                     | ) Number                    | Call Sign                    | Serves         |  |
|--|---|--|-----------------------------|------------------------------|----------------|--|
| SMS 113  | 1291704   | ì  |                             |                              | Tank I         | Barge  |
| 3m3 (13  | 129170  |  |                             |                              |                |  |
|  |   |  |                             |                              | <u> </u>       |  |
| NEW COLEANS IA   | Had:  | Material                                 | Horsepower                  | Propulsion                   |                |  |
| NEW ORLEANS, LA  | Ste   | eel                                      |                             |                              |                |  |
| UNITED STATES  |   |  |                             |                              |                |  |
|  |   |  |                             |                              |                |  |
| Puco 51  | Delhane   | Date Kell Lad Da                         | M Gross Tons                | Net Torre                    | DW7            | Langth   |
| CARUTHERSVILLE MO  |   |  | D 496                       | R-735                        | 05000          | R-200 0  |
| And the Atlanta or come of the processing is a second  | 18Fe  | b2019 15Jan20                            | 19                          | <b>L</b>                     |                | ю  |
| UNITED STATES  |   |  |                             |                              |                |  |
|  |   |  |                             |                              |                |  |
| 0-7-6  |   |  | Operator<br>CAMACE INII A   | ND MARINE LL                 | C              |  |
| MARITIME PARTNERS LL<br>2315 FLORIDA STELDG 2  | .C  |  | SAVAGE INLA<br>209 BLACK W/ | ATER COURT                   |                |  |
| MANDEVILLE, LA 70448   | W GIL IZU                                       |  | GIBSON, LA 70               | 0356                         |                |  |
| UNITED STATES  |   |  | UNITED STATI                | ES                           |                |  |
|  |   |  | and Dames                   | al Included la v             | hich them n    | ust be   |
| This vessel must be manne<br>0 Certified Lifeboatmen, 0  | d with the following li<br>Certified Tankerman, | O HSC Type Ra                            | MA' WHO O SHAF              | JOO OPERATOR                 | and high       | iuo. oo  |
| 0 Masters  | O Licensed Mates                                | O Chief Engineers                        | _                           | Oliers                       |                |  |
| 0 Chief Mates  | 0 First Class Pilots                            | O First Assistant E                      |                             |                              |                |  |
| 0 Second Mates   | 0 Radio Officers                                | O Second Assistan                        |                             |                              |                |  |
| 0 Therd Mates  | 0 Abia Seamen                                   | O Third Assistant E<br>O Licensed Engine |                             |                              |                |  |
| 0 Master First Class Pict  | D Ordinary Seamen<br>D Deckhands                | O Chalifort Membe                        | Engineer                    |                              |                |  |
| th Mate First Class Pilots In addition, this vessel may  | 0 Deckhands                                     | Other Persons                            | in crew. 0 Pers             | ons in addition              | to craw, and   | no Others. Total   |
| Persons allowed: 0   |   |  |                             |                              |                |  |
| Route Permitted And Co   | nditions Of Operation                           | on:                                      |                             |                              |                |  |
| _Rivers_   |   |  |                             |                              |                |  |
|  | anted a fresh water                             | service exami                            | nation interv               | al in accordan               | ce with 46     | CFR Table 31.10-   |
| This vessel has been gra<br>21(b,; if this vessel is<br>vessel must be inspected   | operated in salt                                | water more tha                           | n six (6) months            | COMI notified                | iive (12) m    | as soon as this  |
| change in status occurs  | 3 figrud serr morer                             |  |                             |                              |                |  |
|  |   |  |                             |                              |                |  |
|  |   |  |                             |                              |                |  |
| CONTROL OF THE PROPERTY OF THE |   |  |                             |                              |                |  |
| ***SEE NEXT PAGE FO  | O ADDITIONAL OF                                 | DTIEICATE INI                            | ORMATION*                   | 40                           |                |  |
|  |   |  |                             | UTCO OTATEC                  | the Officer    | In Charge, Marine  |
| With this Inspection for Cer<br>Inspection, Sector Lower M   | Hermandi Kivol Centi                            | ISO this Accoon in                       | all respects, is            | in confortilly w             | ith the applic | able vessel inspection   |
| I laws and the rules and redu  | ulations prescribed the enodic/Re-Inspection    | eraunuoi.                                | This certific               | ete lasued by:               | 71             | //   |
|  |   |  | I direct short setting      |                              |                |  |
| 1 0-4- 1 7   |   | Slaneture                                | Pedi                        | Mantidae                     | LCDR, WSG      | S By direction   |
| Date Zone  | [A/P/R]   | Signature                                | Pedi                        | Named Annie Communication    | •              | S By direction   |
| 3-14-20 Deat A   | APIR A  | Signature 76520                          | Officer in Charge           | Manna trapection Sector Lowe | •              | The second secon |



Certification Date: 18 Feb 2019 **Expiration Date:** 18 Feb 2024

### Certificate of Inspection

Vessel Name: SMS 113

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

28Feb2029

18Feb2019

Internal Structure

28Feb2024

18Feb2019

#### --- 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

10959

**Barrels** 

Yes -

No

No

Density (lbs/gal)

#### \*Hazardous Bulk Solids Authority\*

Not Authorized

#### \*Loading Constraints - Structural\*

| Tank Number | Max Cargo Weight per Tank (short tons) | Maximum I |
|-------------|--|-----------|
| 1C          | 645                                    | 13.6      |
| 2C          | 731                                    | 13.6      |
| 3C          | 645                                    | 13.6      |

#### \*Loading Constraints - Stability\*

| İ | Hull Type | Maximum Load (short tons) | Maximum Draft (ft/in) | Max Density<br>(lbs/gal) | Route Description |
|---|-----------|---------------------------|-----------------------|--------------------------|-------------------|
|   | III       | 1808                      | 10ft 7in              | 8.7                      | R                 |
|   | III       | 1880                      | 10ft 11in             | 9.2                      | R                 |
|   | III       | 1898                      | 11ft Oin              | 9.6                      | R                 |
|   | III       | 1916                      | 11ft 1in              | 10.0                     | R                 |
|   | III       | 1916                      | 11ft 1in              | 10.4                     | R                 |
|   | III       | 1916                      | 11ft 1in              | 10.8                     | R .               |
|   | III       | 1916                      | 11ft 1in              | 11.2                     | R                 |
|   | III       | 1916                      | 11ft 1in              | 11.7                     | R                 |
|   | III       | 1880                      | 10ft 11in             | 12.1                     | R                 |
|   | III       | 1880                      | 10ft 11in             | 12.5                     | R                 |
|   | III       | 1880                      | 10ft 11in             | 12.9                     | R                 |
|   | III       | 1862                      | 10ft 10in             | 13.3                     | R                 |
|   | III       | 1862                      | 10ft 10in             | 13.6                     | R ·               |
|   | III       | 1753                      | 10ft 4in              | 8.7                      | LBS               |
|   | 111       | 1753                      | 10ft 4in              | 9.2                      | LBS               |
|   | 111       | 1771                      | 10ft 5in              | 9.6                      | LBS               |
|   | H.        | 1771                      | 10ft 5in              | 10.0                     | LBS               |
|   | II        | 1771                      | 10ft 5in              | 10.4                     | LBS               |



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| ı   |     |      |          |      |     |
|-----|-----|------|----------|------|-----|
| ١   |     | 1753 | 10ft 4in | 10.8 | LBS |
|     | III | 1735 | 10ft 3in | 11.2 | LBS |
|     | III | 1735 | 10ft 3in | 11.7 | LBS |
|     | III | 1717 | 10ft 2in | 12.1 | LBS |
|     | III | 1717 | 10ft 2in | 12.5 | LBS |
|     | III | 1699 | 10ft 1in | 12.9 | LBS |
|     | Ш   | 1681 | 10ft Oin | 13.3 | LBS |
|     |     | 1681 | 10ft Oin | 13.6 | LBS |
|     | II  | 1520 | 9ft 3in  | 8.7  | R   |
|     | II  | 1520 | 9ft 3in  | 8.7  | LBS |
|     | II  | 1520 | 9ft 3in  | 13.6 | R   |
|     | II  | 1520 | 9ft 3in  | 13.6 | LBS |
|     | 1   | 1412 | 8ft 9in  | 8.7  | R   |
|     | 1   | 1412 | 8ft 9in  | 8.7  | LBS |
|     | 1   | 1412 | 8ft 9in  | 13.6 | R   |
|     | •   | 1412 | 8ft 9in  | 13.6 | LBS |
| - 1 |     |      |          |      |     |

#### \*Conditions Of Carriage\*

Per 46 CFR 150.130, the person in charge of the barge(vessel) is responsible for ensuring that the compatability requirements of 46 CFR 150 are met. Cargoes must be checked for compatability using figures, tables, and appendices of 46 CFR 150 in conjunction with the reactive group numbers from the 'Compat Group No' column listed above the vessel's Cargo Authority Attachment.

Only those cargoes named in the vessel's Cargo Authority Attachment, serial number C1-1904938 dated 11 January 2019, 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.

In accordance with 46 CFR Part 39, excluding part 39.4000, this vessel's vapor collection system has been inspected to the plans approved by MSC Letter C1-1904938 dated January 11, 2019 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 2.5 psig P/V valve with Coast Guard Approval 162.017/167/4. The cargo tank top is suitable for a maximum allowable working pressure (MAWP) of 3 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.

In accordance with 46 CFR Part 39.1017 and 39.5000(e) this vessel's VCS has been evaluated and approved for multi-breasted tandem loading with other vessels specifically approved to tandem load with this vessel.

The maximum design density of cargo which may be filled to the tank top is 10.0 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 below.

#### --- Inspection Status ---



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### Certificate of Inspection

Vessel Name: SMS 113

| *Fuel Tanks*               |                |               |            |              |      |      |
|----------------------------|----------------|---------------|------------|--------------|------|------|
|                            | Internal Exam  | ninations     |            |              |      |      |
| Tank ID                    | Previous       | Last          | Next       |              |      |      |
| Bow                        | <b></b>        | 22Jan2019     | -          |              |      |      |
| *Cargo Tanks*              |                |               |            |              |      |      |
|                            | Internal Exam  | 1             |            | External Exa | m    |      |
| Tank Id                    | Previous       | Last          | Next       | Previous     | Last | Next |
| 1C                         | -              | 18Feb2019     | 28Feb2029  | -            | -    | -    |
| 2C                         | <del></del>    | 18Feb2019     | 28Feb2029  | -            | -    | -    |
| 3C                         | <b></b>        | 18Feb2019     | 28Feb2029  | -            | -    | -    |
|                            |                |               | Hydro Test |              |      |      |
| Tank Id                    | Safety Valve   | \$            | Previous   | Last         | Next |      |
| 1C                         | -              |               | -          | 15Feb2019    | ~    |      |
| 2C                         | -              |               | -          | 15Feb2019    | -    |      |
| 3C                         | -              |               | -          | 15Feb2019    | -    |      |
| Fire Fighting Equ          | ipment         |               |            |              |      |      |
| *Fire Extinguishers - Hand | d portable and | semi-portable | •          |              |      |      |
| Quantity                   |                | Class Ty      | pe         |              |      |      |

40-B

\*\*\*END\*\*\*



Dotod:

C1-1904938

ed: 11-Jan-19

## Certificate of Inspection

Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114
Official #: 1291702 thru 1291705

Shipyard: Trinity Caruthersville

Hull #: 6077-3 thru 60

| VIII.  |     | 120110 | 2 UII U | 1291700         |  |
|--------|-----|--------|---------|-----------------|--|
| 46 CER | 151 | Tank C | FOUR    | Characteristics |  |

| Tank Group Information    | Cargo I | Cargo Identification |       |   | Cargo      | Tanks               |      |        | Cargo<br>Transfer |      | Environmental<br>Control |                   | Fire                   | Special Requirements  |  |             |              |
|---------------------------|---------|----------------------|-------|---|------------|---------------------|------|--------|-------------------|------|--------------------------|-------------------|------------------------|---|--|-------------|--------------|
| Tnk<br>Grp Tanks in Group | Density | Press.               | Temp. |   | Sea        | Туре                | Vent | Gauge  | Pipe<br>Class     | Cont | Tanks                    | Handling<br>Space | Protection<br>Provided | General   | Materials of<br>Construction   | Elec<br>Haz | Temp<br>Cont |
| A #1C, #2C, & #3C         |         | Atmos,               | Amb.  | 1 | 1ii<br>2ii | Integral<br>Gravity | PV.  | Closed | I                 | G-1  | NR                       | NA                | Portable               | .50-60, .50-70(a),<br>.50-70(b), .50-73,<br>.50-81(a), .50- | 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 Identificatio  | Conditions of Carriage |                       |                |       |              |                 |       |                            |   |                 |
|--|------------------------|-----------------------|----------------|-------|--------------|-----------------|-------|----------------------------|---|-----------------|
| Name   | Chem<br>Code           | Compat<br>Group<br>No | Sub<br>Chapter | Grade | Hull<br>Type | Tank<br>Group   | App'd | ecovery<br>VCS<br>Category | Special Requirements in 46 CFR<br>151 General and Mat'ls of | Insp.<br>Period |
| Authorized Subchapter O Cargoes  |                        |                       |                |       |              |                 |       |                            | -   |                 |
| Dodecyl phenol   | DOL                    | 21                    | D/O            | E     | I            | A               | No    | N/A                        | .50-73  | 2               |
| Sodium acetate solution  | SAN                    | 34                    | D/O 3          | #     |              | Α               | No    | N/A                        | <del></del>   |                 |
| Acetonitrile   | ATN                    | 37                    | 0              | Ç     | H            | A               | Yes   | 3                          | No  | G               |
| Acrylonitrile  | ACN                    | 15 <sup>2</sup>       | 0              | С     | H            | 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 <sup>2</sup>       | 0              | NA    | 111          | Α               | No    | N/A                        | .50-81, .50-86  | G               |
| Aminoethyl ethanolamine  | AEE                    | 8                     | 0              | E     | 111          | Α               | Yes   | 1                          | .55-1(b)  | G               |
| Ammonium bisulfite solution (70% or less)  | . ABX                  | 43 2                  | 0              | NA    | 111          | Α               | No    | N/A                        | .50-73, .56-1(a), (b), (c)                                  | G               |
| Ammonium hydroxide (28% or less NH3)   | AMH                    | 6                     | 0              | NA    | Ш            | Α               | No    | N/A                        | .56-1(a), (b), (c), (f), (g)                                | G               |
| Anthracene oil (Coal tar fraction)   | AHO                    | 33                    | 0              | NA    | Ш            | Α               | No    | N/A                        | No  | G               |
| Benzene  | BNZ                    | 32                    | 0              | С     | ill          | Α               | Yes   | 1                          | .50-60  | G               |
| Benzene or hydrocarbon mixtures (having 10% Benzene or more)                     | ВНВ                    | 32 <sup>2</sup>       | 0              | С     | 111          | Α.              | Yes   | 1                          | .50-60  | G               |
| Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)   | вна                    | 32 <sup>2</sup>       | 0              | С     | Ш            | 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   | Ш            | Α               | Yes   | 1                          | .50-60  | G               |
| Bis(2-ethylhexyl) terephthalate  | PEC                    | 34                    | 0              | E     | II           | A               | No    | N/A                        | No  | G               |
| Butyl acrylate (all isomers)   | BAR                    | 14                    | . 0            | D     | 111          | . А             | Yes   | 2                          | .50-70(a), .50-81(a), (b)                                   | G               |
| Butyl methacrylate   | вмн                    | 14                    | 0              | D     | m.           | Α               | Yes   | 2                          | .50-70(a), .50-81(a), (b)                                   | G               |
| Butyraldehyde (all isomers)  | BAE                    | 19                    | 0              | С     | H            | Α               | Yes   | 1                          | .55-1(h)  | G               |
| Camphor oil (light)  | CPO                    | 18                    | 0              | D     |              | Α               | No    | N/A                        | No  | G               |
| Carbon tetrachloride   | CBT                    | 36                    | 0              | NA    | 111          | Α               | No    | N/A                        | No  | G               |
| Caustic potash solution  | CPS                    | 5 <sup>2</sup>        | 0              | NA    | III          | A               | No    | N/A                        | .50-73, .55-1(j)  | G               |
| Caustic soda solution  | CSS                    | 5 <sup>2</sup>        | 0              | NA    | III          | Α               | No    | N/A                        | .50-73, .55-1(j)  | - G             |
| Chemical Oil (refined, containing phenolics)                                     | COD                    | 21                    | 0              | Е     | 11           | A               | No    | N/A                        | .50-73  | G               |
| Chlorobenzene  | CRB                    | 36                    | 0              | D     | Ш            | Α               | Yes   | 1                          | No  | G               |
| Chloroform   | CRF                    | 36                    | 0              | NA    | III          | A               | Yes   | 3                          | No  | G               |
| Coal tar naphtha solvent   | NCT                    | 33                    | 0              | D     | 111          | A               | Yes   | 1                          | .50-73  | G               |
| Creosote   | ccw                    | 21 <sup>2</sup>       | o              | E .   | 111          | A               | Yes   | 1                          | No  | G               |
| Cresols (all isomers)  | CRS                    | 21                    | ō              | E     | III          | A               | Yes   | <del>_</del>               | No  | G               |
| Cresylate spent caustic  | csc                    | 5                     | 0              | NA.   |              | A               | No    | <br>N/A                    | .50-73, .55-1(b)  | G               |
| Cresylic acid tar  | CRX                    | 21                    | 0              | E     |              | <del>``</del> A | Yes   | 1                          | .55-1(f)  | G               |
| Crotonaldehyde   | СТА                    | 19 <sup>2</sup>       | o              | C     | II.          | Α               | Yes   | 4                          | .55-1(h)  | G               |
| Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein) | CHG                    | 19 <sup>2</sup>       | 0              | С     | III          | A               | Yes   | 1                          | No  | G               |



d States Coast Guard Date

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114 Official #: 1291702 thru 1291705

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Shipyard: Trinity Caruthersville

11-Jan-19

| Cargo Idontification  |              | 0 - 144 - 100 - 10 |                |              |                  |                        |                              |                 |   |                 |  |  |
|---|--------------|--|----------------|--------------|------------------|------------------------|------------------------------|-----------------|---|-----------------|--|--|
| Cargo Identification  | <u> </u>     | · ·  | _              |              |                  | Conditions of Carriage |                              |                 |   |                 |  |  |
| Name  | Chem<br>Code | Compat<br>Group<br>No  | Sub<br>Chapter | Grade        | Hull<br>Type     | Tank<br>Group          | Vapor R<br>App'd<br>(Y or N) | VCS             | Special Requirements in 46 CFR<br>151 General and Mat'ls of<br>Construction | Insp.<br>Period |  |  |
| Cyclohexanone   | ссн          | 18   | 0              | D            | Ш                | Α                      | Yes                          | 1               | .56-1(a), (b)   | G               |  |  |
| Cyclohexanone, Cyclohexanol mixture                               | CYX          | 18 <sup>2</sup>  | 0              | E            | III              | Α                      | Yes                          | 1               | .56-1 (b)   | G               |  |  |
| Cyclohexylamine   | CHA          | 7  | 0              | D            | 111              | A                      | Yes                          | 1               | .56-1(a), (b), (c), (g)   | G               |  |  |
| Cyclopentadiene, Styrene, Benzene mixture                         | CSB          | 30   | 0              | D            |                  |                        | Yes                          | <u>:</u><br>1   | .50-60, .56-1(b)  | G               |  |  |
| iso-Decyl acrylate  | IAI          | 14   | 0              | E            | 111              | A                      | Yes                          |                 | .50-70(a), .50-81(a), (b), .55-1(c)   |                 |  |  |
| Dichlorobenzene (all isomers)                                     | DBX          | 36   | 0              |              | 111              | Α                      | Yes                          |                 | .56-1(a), (b)   |                 |  |  |
| 1,1-Dichloroethane  | DCH          | 36   | 0              | C            | — <u>;;;</u>     | A                      | Yes                          | 1               | No  |                 |  |  |
| 2,2'-Dichloroethyl ether  | DEE          | 41   | 0              |              | <del>     </del> |                        | Yes                          | <u>-</u>        | .55-1(f)  |                 |  |  |
| Dichloromethane   | DCM          | 36   | 0              | NA           | 111              | A                      | Yes                          | 5               | No  | G               |  |  |
| 2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution      | DDE          | 43   | 0              | E            | 111              | A                      | No                           | N/A             | .56-1(a), (b), (c), (g)   | G               |  |  |
| 2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution       | DAD          | 0 1,2  |                |              | <br>III          |                        | No                           | N/A             | .56-1(a), (b), (c), (g)   |                 |  |  |
| 2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution | DTI          | 43 <sup>2</sup>  | 0              | E            | 191              | A                      | No                           | N/A             | .56-1(a), (b), (c), (g)   | G               |  |  |
| 1,1-Dichloropropane   | DPB          | 36   | <del>0</del>   | c            |                  |                        | Yes                          | 3               | No  |                 |  |  |
| 1,2-Dichloropropane   | DPP          | 36   | <del>_</del>   |              |                  | A                      | Yes                          | 3               | · No  | G               |  |  |
| 1,3-Dichloropropane   | DPC          | 36   | 0              |              | <del></del> -    | $\frac{\Lambda}{A}$    | Yes                          | 3               | No  | - G             |  |  |
| 1,3-Dichloropropene   | DPU          | 15   | 0              | D            | 11               | A                      | Yes                          | <del>3</del>    | No  |                 |  |  |
| Dichloropropene, Dichloropropane mixtures                         | DMX          | 15   | 0              | C            | u<br>U           | A                      | Yes                          | 1               | No  |                 |  |  |
| Diethanolamine  | DEA          | 8  |                | <br>E        | <u>''</u>        |                        | Yes                          | 1               | .55-1(o)  | - G             |  |  |
| Diethylamine  | DEN          | 7  | <del>-</del>   |              | - 111            | - A                    | Yes                          | 3               | .55-1(c)  |                 |  |  |
| Diethylenetriamine  | DET          | 7 2  |                | E            | 111              |                        | Yes                          |                 | .55-1(c)  | G               |  |  |
| Diisobutylamine   | DBU          | 7  | 0              |              |                  |                        | Yes                          | 3               | .55-1(c)  | G               |  |  |
| Diisopropanolamine  | DIP          | 8  | - 0            | E            | 111              | ^_                     | Yes                          | - <del></del> - | .55-1(c)  |                 |  |  |
| Diisopropylamine  | DIA          | 7  |                | C            | 111              |                        | Yes                          | 3               | .55-1(a)  | G '             |  |  |
| N,N-Dimethylacetamide   | DAC          | 10   |                | <br>E        | <u>"</u>         | <del>-</del>           | Yes                          |                 | .56-1(b)  | G :             |  |  |
| Dimethylethanolamine  | DMB          | - 19   | <del>-</del>   | <del>-</del> | - 111            | - <del>A</del>         | Yes                          | 3               | .56-1(b), (c)   | G i             |  |  |
| Dimethylformamide   | DMF          | 10   | - 0            | D .          | 111              |                        |                              | 1               | .55-1(e)  | G !             |  |  |
| Di-n-propylamine  | DNA          | 7  |                | C            | - II             |                        | Yes                          | 1               | .55-1(c)  | G .             |  |  |
| Dodecyldimethylamine, Tetradecyldimethylamine mixture             | DOT          | <del></del>  |                | E            | <u>''</u>        | A                      | Yes                          | 3               | .56-1(b)  | G ;             |  |  |
| Dodecyl diphenyl ether disulfonate solution                       | DOS          | 43   | 0              | #            | 11               | _ <u>A</u>             | No                           | N/A             | .56-1(b)<br>No  | G '             |  |  |
| EE Glycol Ether Mixture   | EEG          | 40   |                | <i>"</i>     |                  |                        | No                           | N/A             |   | G               |  |  |
| Ethanolamine  | MEA          | 8  | 0              |              | 111              | A                      | No                           | N/A             | No  | G :             |  |  |
| Ethyl acrylate  | EAC          | 14   | -              | E            | - 111            | _ <u>A</u>             | Yes                          |                 | .55-1(c)  | G :             |  |  |
| Ethylamine solutions (72% or less)                                | EAN          | <del></del>  | 0              |              | - 111            | A                      | Yes                          | 2               | .50-70(a), .50-81(a), (b)   | G               |  |  |
| N-Ethylbutylamine   | EBA          | — <u>'</u>   | 0              | A            | <u> </u>         | <u>A</u>               | Yes                          | 6               | .55-1(b)  | G               |  |  |
| N-Ethylcyclohexylamine  | ECC          |  |                | D            | 111              | A                      | Yes                          | 3               | .55-1(b)  | G               |  |  |
| Ethylene cyanohydrin  | ETC          |  | 0              | D            | _                | - A                    | Yes                          | 1               | .55-1(b)  | G               |  |  |
| Ethylenediamine   | EDA          | - 20<br>7 <sup>2</sup>   |                | E            | <u> </u>         | A                      | Yes                          | 1               | No  | G               |  |  |
| Ethylene dibromide  | EDB          | 36 <sup>2</sup>  | 0              | D            |                  |                        | Yes                          | 1               | .55-1(c)  | G               |  |  |
| Ethylene dichloride   | EDC          | 36 <sup>2</sup>  |                | NF           | <u> </u>         | A .                    | No No                        | N/A             | No  | G .             |  |  |
| Ethylene glycol hexyl ether                                       | EGH          |  | 0              | C            | _111             | A                      | Yes                          | 1               | No  | G               |  |  |
| Ethylene glycol monoalkyl ethers                                  | EGC          | 40   |                | E            | 101              | _ <u>A</u>             | No                           | N/A             | No  | G               |  |  |
| Ethylene glycol monoakyi ethers  Ethylene glycol propyl ether     |              | 40   | 0              | D/E          | 111              | A                      | Yes                          | 1               | No  | G               |  |  |
| 2-Ethylhexyl acrylate   | EGP          | 40   |                | E            | 111              | _ <u>A</u>             | Yes                          | 1               | No  | G               |  |  |
|   | EAI          | .14  | 0              | E            | - 111            | A                      | Yes                          | 2               | .50-70(a), .50-81(a), (b)   | G               |  |  |
| Ethyl methacrylate 2-Ethyl-3-propylacrolein                       | ETM          | 14   |                | D/E          | - 111            | Α                      | Yes                          | . 2             | .50-70(a)   | G               |  |  |
| Formaldehyde solution (37% to 50%)                                | EPA          | 19 <sup>2</sup>  | 0              | Ε            | HI               | Α                      | Yes                          | 1               | Na  | G :             |  |  |
| Furfural  | FMS          | 19 <sup>2</sup>  | 0              | D/E          | 111              | Α                      | Yes                          | 1               | .55-1(h)  | G ·             |  |  |
| I Ultural   | FFA          | 19   | _ 0            | D            | III _            | Α                      | Yes                          | 1               | ·.55-1(h)   | G               |  |  |



Certificate of Inspection

### Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114 Official #: 1291702 thru 1291705

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Shipyard: Trinity Caruthersville

C1-1904938

11-Jan-19

| Cargo Identification   |              | Conditions of Carriage |                |       |              |                        |       |                             |   |                 |  |  |
|--|--------------|------------------------|----------------|-------|--------------|------------------------|-------|-----------------------------|---|-----------------|--|--|
| Cargo identification   | <br>         |                        |                | _     |              | Conditions of Carriage |       |                             |   |                 |  |  |
| Name   | Chem<br>Code | Compat<br>Group<br>No  | Sub<br>Chapter | Grade | Huli<br>Type | Tank<br>Group          | App'd | Recovery<br>VCS<br>Category | Special Requirements in 46 CFR<br>151 General and Mat'ls of<br>Construction | Insp.<br>Period |  |  |
| Glutaraldehyde solutions (50% or less)   | GTA          | 19                     | 0              | NA    | III          | Α                      | No    | N/A                         | No  | G               |  |  |
| Hexamethylenediamine solution  | НМС          | 7                      | 0              | E     | H            | Α                      | Yes   | 1                           | .55-1(c)  | G               |  |  |
| Hexamethyleneimine   | HMI          | 7                      | 0              | С     | n ii         | A                      | Yes   | 1                           | .56-1(b), (c)   | G               |  |  |
| Hydrocarbon 5-9  | HFN          | 31                     | 0              | С     | III          | Α                      | Yes   | 1                           | .50-70(a), .50-81(a), (b)   | G               |  |  |
| Isoprene   | IPR          | 30                     | 0              | A     |              | Α                      | Yes   | 7                           | .50-70(a), .50-81(a), (b)   | G               |  |  |
| Isoprene, Pentadiene mixture   | IPN          | 30                     | 0              | В     | 181          | Α                      | No    | N/A                         | .50-70(a), .55-1(c)   | G               |  |  |
| Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor) | KPL          | 5                      | 0              | NA    | Ш            | Α                      | No    | N/A                         | .50-73, .56-1(a), (c), (g)  | G               |  |  |
| Mesityl oxide  | MSO          | 18 <sup>2</sup>        | 0              | D     | III          | Α                      | Yes   | 1                           | No  | G .             |  |  |
| Methyl acrylate  | MAM          | 14                     | 0              | С     | III          | Α                      | Yes   | 2                           | .50-70(a), .50-81(a), (b)   | G               |  |  |
| Methylcyclopentadiene dimer  | MCK          | 30                     | 0              | С     | III          | Α                      | Yes   | 1                           | No  | G               |  |  |
| Methyl diethanolamine  | MDE          | 8                      | 0              | E     | III          | Α                      | Yes   | 1                           | .56-1(b), (c)   | G               |  |  |
| 2-Methyl-5-ethyl pyridine  | MEP          | 9                      | 0              | E     | 311          | Α                      | Yes   | 1                           | .55-1(e)  | G               |  |  |
| Methyl methacrylate  | МММ          | 14                     | 0              | С     | III          | Α                      | Yes   | 2                           | .50-70(a), .50-81(a), (b)   | G               |  |  |
| 2-Methylpyridine   | MPR          | 9                      | 0              | D     | UI           | Α                      | Yes   | 3                           | .55-1(c)  | G               |  |  |
| alpha-Methylstyrene  | MSR          | 30                     | 0              | D     | 10           | Α                      | Yes   | 2                           | .50-70(a), .50-81(a), (b)   | G               |  |  |
| Morpholine   | MPL          | 7 <sup>2</sup>         | 0              | D     | Ш            | Α                      | Yes   | 1                           | .55-1(c)  | G               |  |  |
| Nitroethane  | NTE          | 42                     | 0              | D     | 11           | Α                      | No    | N/A                         | .50-81, .56-1(b)  |                 |  |  |
| 1- or 2-Nitropropane   | NPM          | 42                     | 0              | D     | III          | Α                      | Yes   | 1                           | .50-81  | G               |  |  |
| Pentachloroethane  | PCE          | . 36                   | 0              | NA    | []]          | Α                      | No    | N/A                         | No  | G               |  |  |
| 1,3-Pentadiene   | PDE          | 30                     | 0              | A     | 111          | A                      | Yes   | 7                           | .50-70(a), .50-81   | G               |  |  |
| Perchloroethylene  | PER          | 36                     | 0              | NA    | 111          | Α                      | No    | N/A                         | No  | G               |  |  |
| Polyethylene polyamines  | PEB          | 7 2                    | 0              | E     | 10           | A                      | Yes   | 1                           | .55-1(e)  | G               |  |  |
| iso-Propanolamine  | MPA          | 8                      | 0              | E     | Ш            | Α                      | Yes   | 1                           | .55-1(c)  | G               |  |  |
| Propanolamine (iso-, n-)   | PAX          | 8                      | 0              | Ē     | III          | A                      | Yes   | 1                           | .56-1(b), (c)   | G               |  |  |
| Isopropylamine   | IPP          | 7                      | 0              | Α     | II           | A                      | Yes   | 5                           | .55-1(c)  | G               |  |  |
| Pyridine   | PRD          | 9                      | 0              | : C   | 111          | A                      | Yes   | 1                           | .55-1(e)  | G               |  |  |
| Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxide)                              | SAP          | 5                      | 0              | -     | 111          | Α                      | No    | N/A                         | .50-73, .55-1())  | G               |  |  |
| Sodium aluminate solution (45% or less)  | SAU          | 5                      | 0              | NA    | III          | Α                      | No    | N/A                         | .50-73, .56-1(a), (b), (c)  | G               |  |  |
| Sodium chlorate solution (50% or less)   | SDD          | 0 1,                   | 2 0            | NA    | —<br>III     | Α                      | No    | N/A                         | .50-73  | G               |  |  |
| Sodium hypochlorite solution (20% or less)   | SHQ          | 5                      | 0              | NA    | III          | Α                      | No    | N/A                         | .50-73, .56-1(a), (b)   | G               |  |  |
| Sodium Methylate (30% or less) in Methyl Alcohol Mixture   | SMS          | 20                     | 0              | D     | 111          | Α                      | No    | N/A                         | No  | 4 yr            |  |  |
| Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less)                                       | SSH          | 0 1,                   | 2 0            | NA    | 111          | 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 0            | NA    | HI           | Α                      | No    | N/A                         | .50-73, .55-1(b)  | G               |  |  |
| Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm)                                 | SSJ          | 0 1,2                  | 2 0            | NA    | Н            | A                      | No    | N/A                         | .50-73, .55-1(b)  | G               |  |  |
| Styrene (crude)  | STX          | 30                     | 0              | D     | 111          | A                      | Yes   | 2                           | No  | G               |  |  |
| Styrene monomer  | STY          | 30                     | 0              | D     | 111          | Α                      | Yes   | 2                           | .50-70(a), .50-81(a), (b)   | G               |  |  |
| 1,1,2,2-Tetrachloroethane  | TEC          | 36                     | 0              | NA    | IH           | Α                      | No    | N/A                         | No  | G               |  |  |
| Tetraethylene pentamine  | TTP          | 7                      | 0              | E     | III          | A                      | Yes   | 1                           | .55-1(c)  | G               |  |  |
| Tetrahydrofuran  | THF          | 41                     | 0              | С     | 111          | A                      | Yes   | 1                           | .50-70(b)   | G               |  |  |
| 1,2,4-Trichlorobenzene   | TCB          | 36                     | 0              | Ē     | 111          | A                      | Yes   | 1                           | No  | G               |  |  |
| 1,1,2-Trichloroethane  | TCM          | 36                     | 0              | NA    | 81           | Α                      | Yes   | 1                           | .50-73, .56-1(a)  | G               |  |  |
| Trichloroethylene  | TCL          | 36 <sup>2</sup>        | 0              | NA    | 111          | A                      | Yes   | 1                           | No  | G               |  |  |
| 1,2,3-Trichloropropane   | TCN          | 36                     | 0              | E     |              | Α                      | Yes   | 3                           | .50-73, .56-1(a)  | G               |  |  |
| Triethanolamine  | TEA          | 8 <sup>2</sup>         | 0              | E     | - 111        | A                      | Yes   | 1                           | .55-1(b)  | G               |  |  |
| Triethylamine  | TEN          | 7                      | 0              | C     | 11           | A                      | Yes   | 3                           | .55-1(e)  |                 |  |  |
|  |              |                        | <del>_</del>   |       |              |                        | 163   |                             |   |                 |  |  |



Guard Senal #

Serial #: C1-1904938 Dated: 11-Jan-19

# Certificate of Inspection

Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114

Official #: 1291702 thru 1291705

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Shipyard: Trinity Caruthersville

|  |              | Huii #: 6077-3 thru 60 |                |          |              |                        |                              |              |   |                 |  |  |
|--|--------------|------------------------|----------------|----------|--------------|------------------------|------------------------------|--------------|---|-----------------|--|--|
| Cargo Identification   | n            |                        |                |          |              | Conditions of Carriage |                              |              |   |                 |  |  |
| Name   | Chem<br>Code | Compat<br>Group<br>No  | Sub<br>Chapter | Grade    | Hull<br>Type | Tank<br>Group          | Vapor R<br>App'd<br>(Y or N) | VCS          | Special Requirements in 46 CFR<br>151 General and Mat'ls of<br>Construction | Insp.<br>Period |  |  |
| Triethylenetetramine   | TET          | 7 <sup>2</sup>         | . 0            | Е        | III          | - A                    | Yes                          | 1            | .55-1(b)  | G               |  |  |
| Triphenylborane (10% or less), caustic soda solution                                   | TPB          | 5                      | 0              | NA       | 111          | A                      | No                           | N/A          | .56-1(a), (b), (c)  |                 |  |  |
| Trisodium phosphate solution   | TSP          | 5                      | 0              | NA       | . Ш          | A                      | No                           | N/A          | .50-73, .56-1(a), (c).  |                 |  |  |
| Urea, Ammonium nitrate solution (containing more than 2% NH3)                          | UAS          | 6                      | 0              | NA       | III          | Α                      | No                           | N/A          | .56-1(b)  | G               |  |  |
| Vanillin black liquor (free alkali content, 3% or more).                               | VBL          | 5                      | 0              | NΑ       | III          | Α                      | No                           | N/A          | .50-73, .56-1(a), (c), (g)  | G               |  |  |
| Vinyl acetate  | VAM          | 13                     | 0              | .c       | HE           | Α                      | Yes                          | 2            | .50-70(a), .50-81(a), (b)   | G               |  |  |
| Vinyl neodecanoate   | VND          | 13                     | 0              | E        | HI           | Α                      | No                           | N/A          | .50-70(a), .50-81(a), (b)   | G               |  |  |
| Vinyltoluene   | VNT          | 13                     | 0              | D        | Ш            | Α                      | Yes                          | 2            | .50-70(a), .50-81, .56-1(a), (b), (c), (                                    | G               |  |  |
| Subchapter D Cargoes Authorized for Vapor Contro                                       | ol           |                        |                |          |              |                        |                              |              |   |                 |  |  |
| Acetone  | ACT          | 18 <sup>2</sup>        | D              | С        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| Acetophenone   | ACP          | 18                     | D              | E        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| Alcohol (C6-C17) (secondary) poly(3-6) ethoxylates                                     | AEA          | 20                     | D              | E        |              | A                      | Yes                          |              | <del></del>   | <del></del>     |  |  |
| Alcohol (C6-C17) (secondary) poly(7-12) ethoxylates                                    | AEB          | 20                     | D              | <br>E    |              |                        |                              | 1            |   |                 |  |  |
| Amyl acetate (all isomers)   | AEC          | 34                     |                |          |              | <u>A</u>               | Yes                          |              | <del></del>   |                 |  |  |
| Amyl alcohol (iso-, n-, sec-, primary)   |              |                        | <u>D</u>       | <u>D</u> |              | A                      | Yes_                         | 1            |   |                 |  |  |
| Benzyl acetate   | AAI          | 20                     | <u>D</u>       | D _      |              | A                      | Yes                          | 1            |   |                 |  |  |
| Benzyl alcohol   | BZE          | 34                     | D<br>-         | E        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3)                         | BAL          | 21_                    | <u>D</u>       | E        |              | A                      | Yes                          | 1            | <del></del>   |                 |  |  |
| glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) | BFY          | 20                     | D              | E        |              | . A                    | Yes                          | 1            |   |                 |  |  |
| Butyl acetate (all isomers)  | BAX          | 34                     | D              | D        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| Isobutyl alcohol   | IAL          | 20 <sup>2</sup>        | D              | D        |              | . A                    | Yes                          | 1            |   |                 |  |  |
| Butyl alcohol (n-)   | BAN          | 20 <sup>2</sup>        | D              | D        |              |                        | Yes                          | <del>.</del> |   |                 |  |  |
| Butyl alcohol (sec-)   | BAS          | 20 <sup>2</sup>        | D              |          |              | : A                    | Yes                          | 1            |   |                 |  |  |
| Butyl alcohol (tert-)  | BAT          | 20 <sup>2</sup>        | D              | c        |              | - A                    | Yes                          | _ <u>'</u>   | <u> </u>  |                 |  |  |
| Butyl benzyl phthalate   | ВРН          | 34                     |                | E        | _            | A                      | Yes                          | _ <u>'</u>   |   |                 |  |  |
| Butyl toluene  | BUE          | 32                     | D              | <br>D    |              | Ä                      | Yes                          | 1            |   |                 |  |  |
| Caprolactam solutions  | CLS          | 22                     | D              | E        |              | - A                    | Yes                          | 1            |   |                 |  |  |
| Cycloheptane   | CYE          | 31                     | D              | C        |              | A                      | Yes                          | 1            |   |                 |  |  |
| Cyclohexane  | CHX          | 31                     | D              | C        |              |                        |                              |              | •   |                 |  |  |
| Cyclohexanol   | CHN          | 20                     | D              | E        |              | A                      | Yes                          | 1            |   |                 |  |  |
| Cyclohexyl acetate   | CYC          | 34                     |                |          |              | - <u>A</u> -           | Yes                          | 1            | <del></del>   |                 |  |  |
| 1,3-Cyclopentadiene dimer (molten)   | CPD          |                        | D              | D        |              | <u> </u>               | Yes                          | 1            |   |                 |  |  |
| Cyclopentane   |              | 30                     | D              | D/E      |              | A                      | Yes                          | 2            |   |                 |  |  |
| p-Cymene   | CYP          | 31                     | <u>D</u>       | В        | <u> </u>     | <u>A</u>               | Yes                          |              | <del></del>   |                 |  |  |
| iso-Decaldehyde  | CMP          | 32                     | D              | D        |              | A                      | Yes                          | 1            | <del>-</del>  |                 |  |  |
|  | IDA          | 19                     | D              | E        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| n-Decaldehyde  | DAL          | 19                     | D              | _E       |              | Α                      | Yes                          | 1            |   |                 |  |  |
| Decanoic acid  | DCO          | 4                      | D              | #        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| Decene   | DCE          | 30                     | D              | D        |              | . A                    | Yes                          | 1            |   |                 |  |  |
| Decyl alcohol (all isomers)  | DAX          | 20 <sup>2</sup>        | D              | E        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| n-Decylbenzene, see Alkyl(C9+)benzenes   | DBZ          | 32                     | D              | E        |              | : A                    | Yes                          | 1            |   |                 |  |  |
| Diacetone alcohol  | DAA          | 20 <sup>2</sup>        | D              | D        |              | Α                      | Yes                          | 1            |   |                 |  |  |
| *** This document is only valid when attach  | la de        |                        |                |          |              | -                      |                              | -            |   |                 |  |  |



erial #: C1-1904938 Dated: 11-Jan-19

## Certificate of Inspection

### Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114 Official #: 1291702 thru 1291705

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Shipyard: Trinity Caruthersville

| Cargo Identification   | i<br>i       |                       | Condi          | tions of Carriage |              |               |         |                 |   |                 |
|--|--------------|-----------------------|----------------|-------------------|--------------|---------------|---------|-----------------|---|-----------------|
| Name   | Chem<br>Code | Compat<br>Group<br>No | Sub<br>Chapter | Grade             | Hull<br>Type | Tank<br>Group | Vapor F | Recovery        | Special Requirements in 46 CFR<br>151 General and Mat'ls of<br>Construction | Insp.<br>Period |
| Dibutyl phthalate  | DPA          | 34                    | D              | Ε                 |              | Α             | Yes     | 1               | · · · · · · · · · · · · · · · · · · ·                                       |                 |
| Diethylbenzene   | DEB          | 32                    | D              | D                 |              | A             | Yes     |                 |   |                 |
| Diethylene glycol  | DEG          | 40                    | 2 D            | E                 |              | Α             | Yes     |                 |   |                 |
| Diisobutylene  | DBL          | 30                    | D              | С                 |              | A             | Yes     | 1               |   |                 |
| Diisobutyl ketone  | DIK          | 18                    | D              | D                 |              | Α             | Yes     | 1               |   |                 |
| Dilsopropylbenzene (all isomers)                               | DIX          | 32                    | D              | E                 |              | A             | Yes     | 1               | ·   |                 |
| Dimethyl phthalate   | DTL          | 34                    | D              | Ε                 |              | Α             | Yes     | 1               |   |                 |
| Dioctyl phthalate  | DOP          | 34                    | D              | E                 |              | A             | Yes     | 1               | <del></del>   | -               |
| 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                 |              | Α             | Yes     | 1               |   |                 |
| Diphenyl ether   | DPE          | 41                    | D              | {E}               |              | A             | Yes     | 1               |   |                 |
| Dipropylene glycol   | DPG          | 40                    | D              | E                 |              | Α             | Yes     | 1               |   |                 |
| Distillates: Flashed feed stocks                               | DFF          | 33                    | D              | E                 |              | ^.            | Yes     | 1               |   |                 |
| Distillates: Straight run                                      | DSR          | 33                    | D              | E                 |              | A             | Yes     | 1               |   | <del></del>     |
| Dodecene (all isomers)   | DOZ          | 30                    | D              |                   |              | A             | Yes     | 1               |   |                 |
| Dodecylbenzene, see Alkyl(C9+)benzenes                         | DDB          | 32                    | D              | E                 |              | A             | Yes     | 1               |   |                 |
| 2-Ethoxyethyl acetate  | EEA          | 34                    | D              | <br>D             |              | A             | Yes     | 1               |   |                 |
| Ethoxy triglycol (crude)                                       | ETG          | 40                    | D              | — <del></del>     |              | A             | Yes     | 1               |   |                 |
| Ethyl acetate  | ETA          | 34                    | D              | c                 | •            | <u>/`</u>     | Yes     |                 |   |                 |
| Ethyl acetoacetate   | EAA          | 34                    |                | E E               |              | A             | Yes     | 1               |   |                 |
| Ethyl alcohol  | EAL          | 20 2                  |                | _ <u>-</u>        |              |               | Yes     | <u>:</u>        |   |                 |
| Ethylbenzene   | ETB          | 32                    | D              | С                 |              | A             | Yes     | 1               |   |                 |
| Ethyl butanol  | EBT          | 20                    | D              | D                 |              | A             | Yes     | <del>_</del>    |   |                 |
| Ethyl tert-butyl ether   | EBE          | 41                    | D              | c                 |              |               | Yes     | <u>'</u><br>1   |   | •               |
| Ethyl butyrate   | EBR          | 34                    | D              | <br>D             |              | A             | Yes     | 1               |   |                 |
| Ethyl cyclohexane  | ECY          | 31                    | D              |                   |              | A             | Yes     | 1               | ···· , , , , , , , , , , , , , , , , ,                                      |                 |
| Ethylene glycol  | EGL          | 20 2                  |                | E                 | -            | A             | Yes     | <u>'</u>        |   |                 |
| Ethylene glycol butyl ether acetate                            | EMA          | 34                    | D              | E                 |              | A             | Yes     | 1               |   |                 |
| Ethylene glycol diacetate                                      | EGY          | 34                    | D              | <del></del> _     | -            |               | Yes     | <del> '</del> - |   | <del></del>     |
| Ethylene glycol phenyl ether                                   | EPE          | 40                    | D              | <br>E             |              |               | Yes     | 1               |   |                 |
| Ethyl-3-ethoxypropionate                                       | EEP          | 34                    | <br>D          |                   |              |               | Yes     | 1               |   |                 |
| 2-Ethylhexanol   | EHX          | 20                    | D              | E                 |              | A             | Yes     | <u>'</u> 1      | <del></del>   | ·               |
| Ethyl propionate   | EPR          | 34                    | D              |                   |              | A             | Yes     | <u>'</u>        |   |                 |
| Ethyl toluene  | ETE          | 32                    | D              |                   |              | A             | Yes     | <u>'</u>        |   | <del></del>     |
| Formamide  | FAM          | 10                    | D              | E                 |              |               | Yes     | 1               |   |                 |
| Furfuryl alcohol   | FAL          | 20 2                  |                | E                 |              | A             | Yes     | <u>'</u><br>1   |   |                 |
| Gasoline blending stocks: Alkylates                            | GAK          | 33                    | D              | A/C               |              | A             | Yes     | 1               | <del></del>   |                 |
| Gasoline blending stocks: Reformates                           | GRF          | 33                    | D              | A/C               |              |               |         |                 |   |                 |
| Gasolines: Automotive (containing not over 4.23 grams lead per |              | 33                    | D              | C                 |              | A             | Yes     | 1               |   |                 |
| Casomies. Automotive (comaining flot over 4.25 grains lead per | GAT          | - 33                  | ט              | Ü                 |              | A             | Yes     | 1               |   |                 |



Serial #: C1-1904938 Dated: 11-Jan-19

## Certificate of Inspection

### Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114
Official #: 1291702 thru 1291705

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Shipyard: Trinity Caruthersville

| Cargo Identification  |              |                       |                |       |              |               | Conditions of Carriage |                             |   |  |  |  |
|---|--------------|-----------------------|----------------|-------|--------------|---------------|------------------------|-----------------------------|---|--|--|--|
| Name  | Chem<br>Code | Compat<br>Group<br>No | Sub<br>Chapter | Grade | Hull<br>Type | Tank<br>Group | App'd                  | Recovery<br>VCS<br>Category | Special Requirements in 46 CFR<br>151 General and Mat'ls of<br>Construction | Insp.<br>Period                              |  |  |
| Gasolines: Aviation (containing not over 4.86 grams of lead per gal | lon) GAV     | 33                    | D              | С     |              | Α             | Yes                    | 1                           |   | _  |  |  |
| Gasolines: Casinghead (natural)                                     | GCS          | 33                    | D              | A/C   | -            | Α             | Yes                    | 1                           |   |  |  |  |
| Gasolines: Polymer  | GPL          | 33                    | D              | A/C   |              | Α             | Yes                    | 1                           |   | -  |  |  |
| Gasolines: Straight run   | GSR          | 33                    | D              | A/C   |              | Α             | Yes                    | 1                           |   |  |  |  |
| Glycerine   | GCR          | 20 <sup>2</sup>       | D              | E     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Heptane (all isomers), see Alkanes (C6-C9) (all isomers)            | НМХ          | 31                    | D              | С     |              | Α             | Yes                    | 1                           |   | <u>.                                    </u> |  |  |
| n-Heptanoic acid  | HEN          | 4                     | D              | Е     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Heptanol (all isomers)  | HTX          | 20                    | D              | D/E   |              | A             | Yes                    | 1                           |   |  |  |  |
| Heptene (all isomers)   | HPX          | 30                    | D              | С     |              | Α             | Yes                    | . 2                         |   |  |  |  |
| Heptyl acetate  | HPE          | 34                    | D              | Ε     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Hexane (all isomers), see Alkanes (C6-C9)                           | HXS          | 31 <sup>2</sup>       | D              | B/C   |              | Α             | Yes                    | 1                           |   |  |  |  |
| Hexanoic acid   | НХО          | 4                     | D              | E     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Hexanol   | HXN          | 20                    | D              | D     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Hexene (all isomers)  | HEX          | 30                    | D              | С     |              | Α             | Yes                    | 2                           | ' <del></del>   |  |  |  |
| Hexylene glycol   | HXG          | 20                    | D              | E     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Isophorone  | IPH          | 18 2                  | D              | E     |              | Α             | Yes                    | <u>_</u>                    |   |  |  |  |
| Jet fuel: JP-4  | JPF          | 33                    | D              | E     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Jet fuel: JP-5 (kerosene, heavy)                                    | JPV          | 33                    | D              | D     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Kerosene  | KRS          | 33                    | D              | D     |              | Α             | Yes                    | 1                           | · · · · · · · · · · · · · · · · · · ·                                       |  |  |  |
| Methyl acetate  | MTT          | 34                    | D              | D     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Methyl alcohol  | MAL          | 20 <sup>2</sup>       | D              | С     |              | Α             | Yes                    | 1                           |   |  |  |  |
| Methylamyl acetate  | MAC          | 34                    | D              |       |              | A             | Yes                    |                             | ·   |  |  |  |
| Methylamyl alcohol  | MAA          | 20                    | Ď              | D     |              | A             | Yes                    | 1                           | •   |  |  |  |
| Methyl amyl ketone  | MAK          | 18                    | D ·            | D     | _            | A             | Yes                    | 1                           | · · · · · · · · · · · · · · · · · · ·                                       |  |  |  |
| Methyl tert-butyl ether   | MBE          | 41 2                  | D              |       |              | A             | Yes                    | 1                           |   |  |  |  |
| Methyl butyl ketone   | MBK          | 18                    | D              | C     |              | Α             | Yes                    | <u>·</u>                    |   |  |  |  |
| Methyl butyrate   | MBU          | 34                    | D              | C     |              | A             | Yes                    | <u>-</u> <u>-</u> -         |   |  |  |  |
| Methylcyclohexane   | MCY          | 31                    | D              | C     | ·            | A             | Yes                    | 1                           |   |  |  |  |
| Methyl ethyl ketone   | MEK          | 18 <sup>2</sup>       | D              | C     |              | A             | Yes                    | 1                           | •   |  |  |  |
| Methyl heptyl ketone  | MHK          | 18                    | D              | <br>D |              | A             | Yes                    | 1                           |   |  |  |  |
| Methyl isobutyl ketone  | MIK          | 18 <sup>2</sup>       | D              | C     |              | A             | Yes                    | <u>'</u>                    |   |  |  |  |
| Mineral spirits   | MNS          | 33                    | D              | D     |              |               | Yes                    | <del>'</del><br>1           |   |  |  |  |
| Myrcene   | MRE          | 30                    | D              | D     |              |               | Yes                    | 1                           |   |  |  |  |
| Naphtha: Heavy  | NAG          | 33                    |                | #     |              |               | Yes                    | <u>'</u>                    |   |  |  |  |
| Naphtha: Petroleum  | PTN          | 33                    | D              | #     |              | A             | Yes                    | <u>'</u>                    | <del></del>   |  |  |  |
| Naphtha: Solvent  | NSV          | 33                    | D              | <br>D |              | A             | Yes                    | <u>'</u>                    |   |  |  |  |
| Naphtha: Stoddard solvent   | NSS          | 33                    | D              | D     |              |               |                        |                             | · · · · · · · · · · · · · · · · · · ·                                       | <del></del>                                  |  |  |
| Naphtha: Varnish makers and painters (75%)                          | NVM          | 33                    | D              | С     |              | A             | Yes                    | 1                           |   |  |  |  |
| Nonane (all isomers), see Alkanes (C6-C9)                           | NAX          |                       | D              | D     |              | A             | Yes                    | 1                           | P<br>I  |  |  |  |
| Nonene (all isomers)  | NON          | 31                    |                |       |              | A             | Yes                    | 1                           |   |  |  |  |
| Honetic (dii isotticis)   | NON          | 30                    | D              | D     |              | <u>A</u> _    | Yes                    | 2                           |   |  |  |  |



## Certificate of Inspection

### Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114 Official #: 1291702 thru 1291705

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Shipyard: Trinity Caruthersville

| Cargo Identification                                     |              |                       |                |       |              |               |       | Conditions of Carriage      |   |                  |  |  |  |
|--|--------------|-----------------------|----------------|-------|--------------|---------------|-------|-----------------------------|---|------------------|--|--|--|
| Name   | Chem<br>Code | Compat<br>Group<br>No | Sub<br>Chapter | Grade | Hull<br>Type | Tank<br>Group | App'd | Recovery<br>VCS<br>Category | Special Requirements in 46 CFR<br>151 General and Mat'ls of<br>Construction | Insp.<br>Period  |  |  |  |
| Nonyl alcohol (all isomers)                              | NNS          | 20 2                  | ם י            | Ę     |              |               | Yes   | 1                           |   |                  |  |  |  |
| Nonyl phenol   | NNP          | 21                    | D              | E     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Nonyl phenol poly(4+)ethoxylates                         | NPE          | 40                    | D              | E     | -            | Α             | Yes   | 1                           | · · · · · · · · · · · · · · · · · · ·                                       |                  |  |  |  |
| Octane (all isomers), see Alkanes (C6-C9)                | OAX          | 31                    | D              | С     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Octanoic acid (all isomers)                              | OAY          | 4                     | D              | E     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Octanol (all isomers)                                    | OCX          | 20 2                  | D              | Е     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Octene (all isomers)                                     | отх          | 30                    | D              | С     |              | Α             | Yes   | 2                           |   |                  |  |  |  |
| Oil, fuel: No. 2   | OTW          | / 33                  | D              | D/E   |              | Α             | Yes   | 1                           | <del> </del>  | •                |  |  |  |
| Oil, fuel: No. 2-D                                       | OTD          | 33                    | D              | D     |              | Α             | Yes   | 1                           | · · ·   | _                |  |  |  |
| Oil, fuel: No. 4   | OFR          | 33                    | D              | D/E   | •            | Α             | Yes   | 1                           |   |                  |  |  |  |
| Oil, fuel: No. 5   | OFV          | 33                    | D              | D/E   |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Oil, fuel: No. 6   | OSX          | 33                    | D              | E     |              | Α .           | Yes   | 1                           |   |                  |  |  |  |
| Oil, misc: Crude   | OIL          | 33                    | D              | A/D   |              | Α             | Yes   | 1                           |   | <u>-</u>         |  |  |  |
| Oil, misc: Diesel  | ODS          | 33                    | D              | D/E   |              | A             | Yes   | 1                           | <del></del>   |                  |  |  |  |
| Oil, misc: Gas, high pour                                | OGP          | 33                    | D              | E     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Oil, misc: Lubricating                                   | OLB          | 33                    | D              | E     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Oil, misc: Residual                                      | ORL          | 33                    | D              | Ε     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Oil, misc: Turbine                                       | ОТВ          | 33                    | D              | E     |              | A             | Yes   | 1                           |   |                  |  |  |  |
| Pentane (all isomers)                                    | PTY          | 31                    | D              | Α     |              | A             | Yes   | 5                           |   |                  |  |  |  |
| Pentene (all isomers)                                    | PTX          | 30                    | D              | Α     | _            | Α             | Yes   | 5                           |   |                  |  |  |  |
| n-Pentyl propionate                                      | PPE          | 34                    | D              | D     |              | Α             | Yes   | 1                           |   | <del>-</del>     |  |  |  |
| alpha-Pinene   | PIO          | 30                    | D              | D     |              | A             | 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             |       | 1                           | -   |                  |  |  |  |
| Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate | PAF          | 34                    | D              | E,    |              | A             | Yes   | 1                           |   |                  |  |  |  |
| Polybutene   | PLB          | 30                    | D              | E     |              | Α             | Yes   | 1                           | <u> </u>  |                  |  |  |  |
| Polypropylene glycol                                     | PGC          | 40                    | D              | E     | _            | Α             | Yes   | 1                           | - +   |                  |  |  |  |
| Isopropyl acetate  | ÍAC          | 34                    | Đ              | С     |              | Α             | Yes   | 1 .                         |   |                  |  |  |  |
| n-Propyl acetate   | PAT          | 34                    | D              | С     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Isopropyl alcohol  | IPA          | 20 ².                 | 3 D            | С     |              | Α             | Yes   | 1                           |   | <del></del>      |  |  |  |
| n-Propyl alcohol   | PAL          | 20 <sup>2</sup>       | D              | С     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Propylbenzene (all isomers)                              | PBY          | 32                    | D              | D     |              | Α             | Yes   | 1                           |   | · <del>-</del> · |  |  |  |
| Isopropylcyclohexane                                     | IPX          | 31                    | D              | D     | -            | Α             | Yes   | 1                           |   |                  |  |  |  |
| Propylene glycol   | PPG          | 20 <sup>2</sup>       | 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              | Ε     |              | A             | Yes   | 1                           |   |                  |  |  |  |
| Tetraethylene glycol                                     | TTG          | 40                    | D              | E     |              | A             | Yes   | 1                           |   |                  |  |  |  |
| Tetrahydronaphthalene                                    | THN          | 32                    | D              | E     |              | Α             | Yes   | 1                           |   |                  |  |  |  |
| Toluene  | TOL          | 32                    | D              | С     |              | Α             | Yes   | 1                           |   | _                |  |  |  |
|  | !            |                       |                |       |              |               |       |                             |   |                  |  |  |  |



Serial #: C1

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## Certificate of Inspection

Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114

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Shipyard: Trinity Caruthersville

| Cargo Identification                                       |              |                       |                |       |              |               | Conditions of Carriage |                             |   |                 |  |  |
|--|--------------|-----------------------|----------------|-------|--------------|---------------|------------------------|-----------------------------|---|-----------------|--|--|
| Name   | Chem<br>Code | Compat<br>Group<br>No | Sub<br>Chapter | Grade | Huil<br>Type | Tank<br>Group | App'd                  | Recovery<br>VCS<br>Category | Special Requirements in 46 CFR<br>151 General and Mat'ls of<br>Construction | Insp.<br>Period |  |  |
| Tricresyl phosphate (containing less than 1% ortho isomer) | TCP          | 34                    | D              | E     |              | . A           | Yes                    | 1                           |   |                 |  |  |
| Triethylbenzene  | TEB          | 32                    | D              | Ε     |              | Α             | Yes                    | 1                           |   |                 |  |  |
| Triethylene glycol   | TEG          | 40                    | D              | E     |              | Α             | Yes                    | 1                           |   |                 |  |  |
| Triethyl phosphate   | TPS          | 34                    | D              | Е     |              | Α             | Yes                    | 1                           |   |                 |  |  |
| Trimethylbenzene (all isomers)                             | TRE          | 32                    | D              | {D}   |              | A             | Yes                    | 1                           | <u> </u>  |                 |  |  |
| Trixylyl phosphate   | TRP          | . 34                  | D              | E     |              | Α             | Yes                    | 1                           |   |                 |  |  |
| 1-Undecene   | UDC          | 30                    | Đ              | D/E   |              | Α             | Yes                    | 1                           |   | •               |  |  |
| 1-Undecyl alcohol  | UND          | 20                    | D              | E     |              | Α             | Yes                    | 1                           |   |                 |  |  |
| Xylenes (ortho-, meta-, para-)                             | XLX          | 32                    | D              | D     |              | A             | Yes                    | 1                           |   |                 |  |  |

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## Certificate of Inspection

Cargo Authority Attachment

Vessel Name: SMS 111 thru SMS 114

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Shipyard: Trinity Caruther

Hull #: 6077-3 thru 60

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

Cargo Identification

Chem Code

Compatability Group No

Note 1

Note 2

Subchapter Subchapter D

Subchapter O

Grade

A, B, C D. E

NA

Hull Type

Ш

Conditions of Carriage Tank Group

Vapor Recov Approved (Y or N)

Conditions of Carriage Tank Group

Vapor Recovery

Approved (Y or N) VCS Category:

Category 1

Category 2

Category 3 Category 4 Category 5

Category 6

Category 7

The propper 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.

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. 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 Commandani (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

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.

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

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.

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 sufficeint hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4).

Not applicable to barges certificated under Subchapter D.

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.

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.

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 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.

(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 arrester.

(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.

(Polymerizes and highly toxic) Must comply with requirements of Categories 1, 2 and 3. (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.

(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.

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