

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

Certification Date: 12 Sep 2024 12 Sep 2029 **Expiration Date:** 

## Certificate of Inspection

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

Ī	Vessel Name	Official Number	IMO Number	Call Sign	Service
	FMT 3304	1294604			Tank Barge
	Hailing Port				

**Hull Material** 

Steel

**UNITED STATES** 

NEW ORLEANS, LA

Place Built Delivery Date Keel Laid Date Gross Tons DWT Net Tons Length ASHLAND CITY, TN R-1619 R-297.5 R-1619 28Aug2019 23Jul2019 894 1-0

**UNITED STATES** 

Owner MP 2023 LLC 3838 N CAUSEWAY BLVD SUITE 3335 METAIRIE, LA 70002

**UNITED STATES** 

Operator

Horsepower

Florida Marine, LLC 2360 FIFTH STREET MANDEVILLE, LA 70471 **UNITED STATES** 

Propulsion

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

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

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

Route Permitted And Conditions Of Operation:

### ---Lakes, Bays, and Sounds---

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

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

This tank barge is participating in the Eighth and Ninth Coast Guard District's Tank Barge Streamlined

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

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

	Annual/Peri	odic/Re-Inspe	ction	This certificate issued by:
Date	Zone	A/P/R	Signature	Corrina Ott CDR, USCS, By Diection
				Officer in Charge, Marine Inspection
				Sector Houston-Galveston
				Inspection Zone



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

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Inspection Program (TBSIP). Inspection activities aboard this barge shall be conducted in accordance with its Tank Barge Action Plan (TAP). Inspection issues concerning this barge should be directed to Sector New Orleans

### ---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

31Aug2029

28Aug2019

Internal Structure

30Sep2029

09Sep2024

28Aug2019

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

Authorization:

FLAMMABLE/COMBUSTIBLE LIQUIDS IN 46 CFR TABLE 30.25-1 AND SPECIFIED HAZARDOUS

CARGOES.

**Total Capacity** 

Units Highest Grade Type Part151 Regulated Part153 Regulated Part154 Regulated

No

28966

Barrels

No

### \*Hazardous Bulk Solids Authority\*

Not Authorized

### \*Loading Constraints - Structural\*

Tank Number	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1 P/S	861	13.58
2 P/S	874	13.58
3 P/S	754	13.58

#### SLOP P/S

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

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
H	3910	10ft 3in	13.58	R, LBS
III	4740	11ft 11in	13.58	R, LBS

### \*Conditions Of Carriage\*

Only those cargoes named in the vessel's Cargo Authority Attachment, Serial No. C1-2003055, dated 09-Sep-2020 may be carried, and then only in the tanks indicated.

When the vessel is carrying cargoes containing greater than 0.5% benzene, the person in charge is responsible for ensuring the provisions of 46 US Code of Federal Regulations Part 197, Subpart C are Applied.

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

In accordance with 46 CFR 39, excluding part 39.4000, this vessel's vapor collection system has been inspected to the plans approved by MSC Letter C1-1902062 dated June 26, 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 vessels's Cargo Authority Attachment.

In accordance with 46 CFR Part 39.5000, this vessel's VCS has been evaluated and approved for multi-breasted tandem loading with other vessels specifically approved.

### --- Inspection Status ---



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

Certification Date: 12 Sep 2024 Expiration Date: 12 Sep 2029

## Certificate of Inspection

Vessel Name: FMT 3304

\*Fuel Tanks\*

Internal Examinations

Tank ID Previous Last Next AFT - 28Aug2019 -

\*Cargo Tanks\*

	Internal Exam			External Exam	า	
Tank Id	Previous	Last	Next	Previous	Last	Next
1 P/S	<u>/</u>	28Aug2019	31Aug2029	9)	-	-
2 P/S	·	28Aug2019	31Aug2029	-	-	( <b></b> )
3 P/S	-	28Aug2019	31Aug2029	_	ž	7 <u>2</u> 0
SLOP P/S	(#C)	28Aug2019	31Aug2029	-	₹.	<del>(*</del> )
			Hydro Test			
Tank Id	Safety Valves		Previous	Last	Next	
1 P/S	-		-	28Aug2019	<u>a</u>	
2 P/S	-		-	28Aug2019	ě	
3 P/S	-		-	28Aug2019	=	
SLOP P/S	-		-	28Aug2019	2	

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

Required Only During Transfer of Cargo or Operation of Barge Machinery

## --- Fire Fighting Equipment ---

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

Quantity Class Type

2 40-B

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

Serial #: C1-1902062

26-Jun-19



# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: FMT 3304 Official #: 1294604

Shipyard: Arcosa Ashland City

Hull #: 5415

Tank Group Information	Cargo k	dentificati	on		Cargo		Tanks		Carg		Enviror Control		Fire	Special Require	ments	1	
Tnk Grp Tanks in Group	Density	Press	Temp.	Hull Typ	Seq	-	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec	Temp
A ALL	13.6	Almos.	Amb.	II	1ii 2ii	Integral Gravity	PV	Closed	11	G-1	NR	NA	Portable	.50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50- 81(b),	55-1(b), (c), (e), (f), (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 tocation.

List of Authorized Cargoes

Cargo Identificatio			Condi	tions of Carriage						
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor R App'd (Y or N)	VCS	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
Authorized Subchapter O Cargoes										
Sodium acetate solution	SAN	34	D/O 3	#		Α	No	N/A		
Acetonitrile	ATN	37	0	С	111	Α	Yes	3	No	G
Acrylonitrile	ACN	15 <sup>2</sup>	0	С	п	Α	Yes	4	.50-70(a), .55-1(e)	G
Adiponitrile	ADN	37	0	Ε	11	Α	Yes	1_	No	G
Alkyl (C7-C9) nitrates	AKN	34 2	0	NA	111	Α	No	N/A	50-81, 50-86	G
Aminoethyl ethanolamine	AEE	8	0	E	10	Α	Yes	1	.55-1(b)	G
Ammonium bisulfite solution (70% or less)	ABX	43 2	0	NA	Ш	Α	No	N/A	50-73, .56-1(a), (b), (c)	G
Ammonium hydroxide (28% or less NH3)	AMH	6	0	NA	111	Α	No	N/A	56-1(a), (b), (c), (f), (g)	G
Anthracene oil (Coal tar fraction)	AHO	33	0	NA	11	Α	No	N/A	No	G
Benzene	BNZ	32	0	С	Ш	Α	Yes	1	50-60	G
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	внв	32 2	0	С	H	Α	Yes	1	50-60	G
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	ВНА	32 <sup>2</sup>	0	С	m	Α	Yes	1	.50-60, .56-1(b), (d), (f), (g)	G
Benzene, Toluene, Xylene mixtures (10% Benzene or more)	втх	32	0	B/C	III	Α	Yes	1	50-60	G
Butyl acrylate (all isomers)	BAR	14	0	D	ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Butyl methacrylate	вмн	14	0	D	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Butyraldehyde (all isomers)	BAE	19	0	С	111	Α	Yes	1	.55-1(h)	G
Camphor oil (light)	CPO	18	0	D	11	Α	No	N/A	No	G
Carbon tetrachloride	CBT	36	0	NA	DI.	Α	No	N/A	No	G
Caustic potash solution	CPS	5 2	0	NA	111	Α	No	N/A	50-73, 55-1(j)	G
Caustic soda solution	css	5 <sup>2</sup>	0	NA	Ш	Α	No	N/A	50-73, 55-1(j)	G
Chlorobenzene	CRB	36	0	D	III	А	Yes	-30	No	G
Chloroform	CRF	36	0	NA	Ш	Α	Yes	3	No	G
Coal tar naphtha solvent	NCT	33	0	D	111	Α	Yes	1	50-73	G
Creosote	CCV	/ 212	0	E	m	Α	Yes	1	No :	G
Cresols (all isomers)	CRS	21	0	Е	111	Α	Yes	1	No	G
Cresylate spent caustic	csc	5	0	NA	III	Α	No	N/A	.50-73, .55-1(b)	G
Cresylic acid tar	CRX	21	0	Ε	111	Α	Yes	1	55-1(1)	G
Crotonaldehyde	СТА	19 <sup>2</sup>	0	С	- 11	Α	Yes	4	.55-1(h)	G
Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein)	CHG	19 <sup>2</sup>		С	IB	Α	Yes	1	No	G
Cyclohexanone	ССН	18	0	D	III	Α	Yes	1	.56-1(a), (b)	G
Cyclohexanone, Cyclohexanol mixture	CYX	18 <sup>2</sup>	o	E	111	Α	Yes	1	.56-1 (b)	G
Cyclohexylamine	CHA	7	0	D	III	Α	Yes	- 1	.56-1(a), (b), (c), (g)	G

<sup>\*\*\*</sup> This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. \*\*\*

Serial #:

C1-1902062

d: 26-*Jun-*19



# Certificate of Inspection

Cargo Identification

## Cargo Authority Attachment

Vessel Name: FMT 3304

Official #: 1294604

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Shipyard: Arcosa Ashland City

Hull #: 5415

Conditions of Carriage

		Compat					Vapor Recovery			Inen
Name	Chem Code	Group No	Sub Chapler	Grade	Hull Type	Tank Group	App'd (Y or N)	VCS Calegory	151 General and Matts of Construction	Insp. Perio
				71						
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	0	D	111	Α	Yes	1	.50-60, ,56-1(b)	G
iso-Decyl acrylate	IAI	14	0	Е	JII	Α	Yes	2	.50-70(a), .50-81(a), (b), 55-1(c)	G
Dichlorobenzene (all isomers)	DBX	36	0	Е	111	Α	Yes	3	.56-1(a), (b)	G
1,1-Dichloroethane	DCH	36	0	С	111	Α	Yes	1	No	G
2,2'-Dichloroethyl ether	DEE	41	0	D	Ш	Α	Yes	1	.55-1(0)	G
Dichloromethane	DÇM	36	0	NA	111	Α	Yes	5	No	G
2.4-Dichlorophenoxyacetic acid, diethanolamine salt solution	DDE	43	0	Е	111	Α	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution	DAD	0 1,		A	ш	A	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	DTI	43 2	0	E	III	A	No	N/A	.56-1(a), (b), (c), (g)	G
1,1-Dichloropropane	DPB	36	0	C	111	A	Yes	3	No	G
1,2-Dichloropropane	DPP	36	0	c	18	A	Yes	3	No	G
1,3-Dichloropropane	DPC	36	0	C	111	A	Yes	3	No	G
1.3-Dichloropropene	DPU	15	0	D	11	A	Yes	4	No	G
Dichloropropene, Dichloropropane mixtures	DMX	15	0	C	11	A	Yes	1	No	G
Diethanolamine	DEA	8	0	E	111	A	Yes	1	,55-1(c)	G
Diethylamine	DEN	7	0	C	111	A	Yes	3	,55-1(c)	G
•	DET	7 <sup>2</sup>	0	E	10	A	Yes	1	,55-1(c)	G
Diethylenetriamine									,55-1(c)	G
Diisobutylamine	DBU	7	0	D	111	A	Yes	3		- 6
Diisopropanolamine	DIP	8	0	E	111	A	Yes	1	.55-1(c)	_
Diisopropylamine	DIA	7	0	С	11	Α	Yes	3	.55-1(c)	G
N,N-Dimethylacetamide	DAC	10	0	Ε	311	A	Yes	3	.56-1(b)	G
Dimethylethanolamine	DMB	8	0	D	111	Α	Yes	1	.56-1(h), (c)	G
Dimethylformamide	DMF	10	0	D	Ш	Α	Yes	1	.55-1(e)	G
Di-n-propylamine	DNA	7	0	С	- 11	A	Yes	3	.55-1(c)	G
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	0	Е	111	Α	No	N/A	.56-1(b)	G
Dodecyl diphenyl ether disulfonate solution	DOS	43	0	#	II	Α	No	N/A	No	G
EE Glycol Ether Mixture	EEG	40	0	D	111	Α	No	N/A	No	G
Ethanolamine	MEA	8	0	Е	III	Α	Yes	1	55-1(c)	G
Ethyl acrylate	EAC	14	0	С	111	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethylamine solutions (72% or less)	EAN	7	0	Α	11	Α	Yes	6	.55-1(b)	G
N-Ethylbutylamine	EBA	7	0	D	Ш	Α	Yes	3	.55-1(b)	G
N-Ethylcyclohexylamine	ECC	7	0	D	III	Α	Yes	1	,55-1(b)	G
Ethylene cyanohydrin	ETC	20	0	Ε	III	Α	Yes	1	No	G
thylenediamine	EDA	72	0	D	1H	Α	Yes	1	.55-1(c)	G
Ethylene dichloride	EDC	36 <sup>2</sup>	0	С	111	Α	Yes	1	No	G
thylene glycol hexyl ether	EGH	40	0	Ε	111	Α	No	N/A	No	G
thylene glycol monoalkyl ethers	EGC	40	0	D/E	Ш	Α	Yes	1	No	G
thylene glycol propyl ether	EGP	40	0	E	Ш	Α	Yes	1 =	No	G
-Ethylhexyl acrylate	EAI	14	0	E	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethyl methacrylate	ETM	14	0	D/E	101	A	Yes	2	,50-70(a)	G
-Ethyl-3-propylacrolein	EPA	19 2	0	E	111	A	Yes	1	No	G
Formaldehyde solution (37% to 50%)	FMS	19 <sup>2</sup>	0	D/E	101	A	Yes	1	.55-1(h)	G
Furfural	FFA	19	0	D	111	A	Yes	4	.55-1(h)	G
Glutaraldehyde solutions (50% or less)	GTA	19	0	NA.	III	A	No	N/A	No	G
	JIM	13	0	INM	111	^	INU	IW/A	***	9

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# Certificate of Inspection

**Cargo Identification** 

## Cargo Authority Attachment

Vessel Name: FMT 3304

Official #: 1294604

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Shipyard: Arcosa Ashland City

Hull #: 5415

Conditions of Carriage

	-			-	-	-				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Calegory	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period
Hexamethyleneimine	нмі	7	0	С	П	Α	Yes	1	.56-1(b), (c)	G
Isoprene	IPR	30	0	Α	111	Α	Yes	7	50-70(a), .50-81(a), (b)	G
Isoprene, Pentadiene mixture	IPN	30	0	В	111	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	m	Α	No	N/A		G
Mesityl oxide	MSO	182	0	D	3115	Α	Yes	1	No	G
Methyl acrylate	MAM	14	0	С	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Methylcyclopentadiene dimer	MCK	30	0	С	111	Α	Yes	1	No	G
Methyl diethanolamine	MDE	8	0	E	300	Α	Yes	1	56-1(b), (c)	G
2-Methyl-5-ethyl pyridine	MEP	9	0	E	111	Α	Yes	1	,55-1(e)	G
Methyl methacrylate	MMM	1 14	0	С	III	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
2-Methylpyridine	MPR	9	0	D	111	Α	Yes	3	.55-1(c)	G
alpha-Methylstyrene	MSR	30	0	D	111	Α	Yes	2	.50-70(a), 50-81(a), (b)	G
Morpholine	MPL	7 2	0	D	111	Α	Yes	1	.55-1(c)	G
Nitroethane	NTE	42	0	D	Ш	Α	No	N/A	.50-81, .56-1(b)	G
- or 2-Nitropropane	NPM	42	0	D	111	Α	Yes	1	50-B1	G
,3-Pentadiene	PDE	30	0	Α	111	Α	Yes	7	.50-70(a), .50-81	G
Perchloroethylene	PER	36	0	NA	111	Α	No	N/A	No	G
olyethylene polyamines	PEB	72	0	Е	111	Α	Yes	1	.55-1(e)	G
so-Propanolamine	MPA	8	0	Е	m	Α	Yes	1	.55-1(c)	G
Propanolamine (iso-, n-)	PAX	8	0	E	111	Α	Yes	1	.56-1(b), (c)	G
sopropylamine	IPP	7	0	Α	II	Α	Yes	5	,55-1(c)	G
Pyridine	PRD	9	0	С	101	Α	Yes	1	.55-1(e)	G
- Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxide)	SAP	5	0		Ш	Α	No	N/A	.50-73, <sub>.</sub> 55-1(j)	G
Sodium aluminate solution (45% or less)	SAU	5	0	NA	111	Α	No	N/A	,50-73, .56-1(a), (b), (c)	G
Sodium chlorate solution (50% or less)	SDD	0 1	2 0	NA	111	Α	No	N/A	.50-73	G
Sodium hypochlorite solution (20% or less)	SHQ	5	0	NA	111	Α	No	N/A	.50-73, .56-1(a), (b)	G
Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less)	SSH	0 1	2 0	NA	111	Α	Yes	1	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but ess Ihan 200 ppm)	SSI	0 1	<sup>2</sup> O	NA	111	Α	No	N/A	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm)	SSJ	0.1	<sup>2</sup> O	NA	- II	Α	No	N/A	,50-73, .55-1(b)	G
Styrene monomer	STY	30	0	D	III	Α	Yes	2	50-70(a), .50-81(a), (b)	G
,1,2,2-Tetrachloroethane	TEC	36	0	NA	111	Α	No	N/A	No	G
etraethylene pentamine	TTP	7	0	E	111	Α	Yes	1	.55-1(c)	G
etrahydrofuran	THE	41	0	С	111	Α	Yes	1	.50-70(b)	G
,2,4-Trichlorobenzene	ТСВ	36	0	Е	111	Α	Yes	1	No	G
,1,2-Trichloroethane	ТСМ	36	0	NA	III	Α	Yes	1	.50-73, .56-1(a)	G
richloroethylene	TCL	36 <sup>2</sup>	0	NA	111	Α	Yes	1	No	G
,2,3-Trichloropropane	TCN	36	0	Ę	- 11	Α	Yes	3	50-73, 56-1(a)	G
riethanolamine	TEA	8 2		E	III	A	Yes	1	55-1(b)	G
Triethylamine	TEN	7	0	C	31	A	Yes	3	55-1(e)	G
riethylenetetramine	TET	72	0	E	111	A	Yes	1	55-1(b)	G
Friphenylborane (10% or less), caustic soda solution	TPB	5	0	NA	111	A	No	N/A	.56-1(a), (b), (c)	G
	TSP	5	0	NA	111				,50-73, .56-1(a), (c)	G
Frisodium phosphate solution	TSP	5	0	NA	111	Α	No	N/A	.au-/3, .bb-1(a), (c)	

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UAS

Urea, Ammonium nitrate solution (containing more than 2% NH3)



Serial #: C1-1902062 Dated: 26-Jun-19

## 0.14

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: FMT 3304

Official #: 1294604

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Shipyard: Arcosa Ashland City

Cargo Identification					i	1	4	Condit	ione of Carriage					
	-			_		_	Conditions of Carriage							
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	VCS	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period				
Vanillin black liquor (free alkali content, 3% or more).	VBL	5	0	NA	Ш	Α	No	N/A	50-73, 55-1(a), (c), (g)	G				
Vinyl acetate	VAM	13	0	С	III	Α	Yes	2	50-70(a), .50-81(a), (b)	G				
Vinyl neodecanoate	VND	13	0	E	111	A	No	N/A	,50-70(a), .50-81(a), (b)	G				
Vinyltoluene	VNT	13	0	D		Α	Yes	2	.50-70(a), .50-81, .56-1(a), (b), (c), (	G				
Subchapter D Cargoes Authorized for Vapor Control														
Acetone	ACT	18 <sup>2</sup>	D	С		Α	Yes	1						
Acetophenone	ACP	18	D	E		Α	Yes	1						
Alcohol (C12-C16) poly(20+) ethoxylates	APW	20	D	E		Α	Yes	1						
Alcohol (C6-C17) (secondary) poly(3-6) ethoxylates	AEA	20	D	Ε		A	Yes	1						
Alcohol (C6-C17) (secondary) poly(7-12) ethoxylates	AEB	20	D	Ε		Α	Yes	1	*					
Amyl acetate (all isomers)	AEC	34	D	D		_ A	Yes	1						
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D		Α	Yes	1						
Benzyl acetate	BZE	34	D	Е		Α	Yes	1						
Benzyl alcohol	BAL	21	D	E		Α	Yes	1						
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters)	BFY	20	D	E		Α	Yes	1						
Butyl acetate (all isomers)	BAX	34	D	D		Α	Yes	40						
Isobutyl alcohol	IAL	20 2		D		Α	Yes	1	=======================================					
Butyl alcohol (n-)	BAN	20 2		D		A	Yes	1						
Butyl alcohol (sec-)	BAS	20 2		c		A	Yes	1						
Butyl alcohol (tert-)	BAT	20 2		С		A	Yes	1						
Butyl benzyl phthalate	BPH	34		E			Yes	- 1						
Butyl toluene	BUE	32	D	D		A								
Caprolactam solutions							Yes	1						
	CLS	22	D	E		A	Yes	1						
Cycloheptane	CYE	31	D	С		Α .	Yes	1						
Cyclohexane	CHX	31	D	С	-	A	Yes	1_						
Cyclohexanol	CHN	20	D	E		Α	Yes	1						
Cyclohexyl acetate	CYC	34	D	D		A	Yes	1						
1,3-Cyclopentadlene dimer (molten)	CPD	30	D	D/E		Α	Yes	2						
Cyclopentane	CYP	31	D	В	_	Α	Yes	1						
p-Cymene	CMP	32	D	D		Α_	Yes	1						
iso-Decaldehyde	IDA	19	D	E		A	Yes	1						
n-Decaldehyde	DAL	19	D	E		Α	Yes	1						
Decanoic acid	DCO	4	D	#		Α	Yes	1						
Decene	DCE	30	D	D		Α	Yes	1	9	-				
Decyl alcohol (all isomers)	DAX	20 <sup>2</sup>	D	Е		Α	Yes	1						
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	Е		Α	Yes	1						
Diacetone alcohol	DAA	20 <sup>2</sup>	D	D		. A	Yes	1						

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# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: FMT 3304 Official #: 1294604

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Shipyard: Arcosa Ashland City

Cargo Identification	n							Condi	tions of Carriage	
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period
*				1						
Dibutyl phthalate	DPA	34	D	E		Α	Yes	1		
Diethylbenzene	DEB	32	D	D		Α	Yes	1		
Diethylene glycol	DEG	40 2	. D	E		Α	Yes	1		
Diisobutylene	DBL	30	D	С		Α	Yes	1		
Diisobutyl ketone	DIK	18	D	D		Α	Yes	1		
Diisopropylbenzene (all isomers)	DIX	32	D	E		Α	Yes	1		
Dimethyl phthalate	DTL	34	D	E		Α	Yes	1		
Dioctyl phthalate	DOP	34	D	E		Α	Yes	1		
Dipentene	DPN	30	D	D		Α	Yes	1		
Diphenyl	DIL	32	D	D/E		А	Yes	1		
Diphenyl, Diphenyl ether mixtures	DDO	33	D	E		Α	Yes	1		
Diphenyl ether	DPE	41	D	{E}		Α	Yes	1		
Dipropylene glycol	DPG	_40	D	E		A	Yes	1		
Distillates: Flashed feed stocks	DFF	33	D	E		Α	Yes	1		
Distillates: Straight run	DSR	33	D	E		Α	Yes	1		
Dodecene (all isomers)	DOZ	30	D	D		Α	Yes	1		
Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32	D	E		Α	Yes	1		
2-Ethoxyethyl acetate	EEA	34	D	D		Α	Yes	1		
Ethoxy triglycol (crude)	ETG	40	D	E		Α	Yes	1		
Ethyl acetate	ETA	34	D	С		Α	Yes	1		
Ethyl acetoacetate	EAA	34	D	E		Α	Yes	1		
Ethyl alcohol	EAL	20 <sup>2</sup>	D	С		Α	Yes	1		
Ethylbenzene	ETB	32	D	С		Α	Yes	1		
Ethyl bulanol	EBT	20	D	D		Α	Yes	1		
Ethyl tert-butyl ether	EBE	41	D	С		Α	Yes	1		
Ethyl bulyrate	EBR	34	D	D		Α	Yes	1		
Ethyl cyclohexane	ECY	31	D	D		Α	Yes	Ŷ.		
Ethylene glycol	EGL	20 2	D	Е		Α	Yes	1		
Ethylene glycol butyl ether acetate	EMA	34	D	E		Α	Yes	1		
Elhylene glycol diacetate	EGY	34	D	Е		Α	Yes	1		
Ethylene glycol phenyl ether	EPE	40	D	E		Α	Yes	1		
Ethyl-3-ethoxypropionate	EEP	34	D	D		Α	Yes	1		
2-Ethylhexanol	EHX	20	D	E		Α	Yes	1		
Ethyl propionate	EPR	34	D	С		Α	Yes	1		
Ethyl toluene	ETE	32	D	D		Α	Yes	1		
Formamide	FAM	10	D	E		Α	Yes	1		
Furfuryl alcohol	FAL	20 <sup>2</sup>	D	E		Α	Yes	1		
Gasoline blending stocks: Alkylates	GAK	33	D	A/C		Α	Yes	15		



Vessel Name: FMT 3304

Naphtha: Petroleum

Naphtha: Solvent

Official #: 1294604

Cargo Authority Attachment

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Shipyard: Arcosa Ashland City

Serial #: C1-1902062

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Hull #: 5415

Official #: 1254004	rage o oi s						11dii #, 5415					
Cargo Identification						Conditions of Carriage						
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period		
										_		
Gasoline blending stocks: Reformates	GRF	33	D	A/C		Α	Yes	1				
Gasolines: Automotive (containing not over 4.23 grams lead per	GAT	33	D	С		A	Yes	1				
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	) 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	G\$R	33	D	A/C		Α	Yes	1				
Glycerine	GCR	20 2	2 D	E		Α	Yes	1				
Heptane (all isomers), see Alkanes (C6-C9) (all isomers)	нмх	31	D	С		Α	Yes	1				
n-Heptanoic acid	HEN	4	D	Е		Α	Yes	1				
Heptanol (all isomers)	нтх	20	D	D/E		A	Yes	1_				
Heptene (all isomers)	HPX	30	D	С		Α	Yes	2				
Heptyl acetate	HPE	34	D	E		Α	Yes	18				
Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 2	2 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				
Hexylene glycol	HXG	20	D	Ε		Α	Yes	1				
Isophorone	IPH	18 2	2 D	E		Α	Yes	1				
Jet fuel: JP-4	JPF	33	D	E		Α	Yes	1				
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		Α	Yes	11				
Kerosene	KRS	33	D	D		Α	Yes	-1				
Methyl acetate	MTT	34	D	D		Α	Yes	1				
Methyl alcohol	MAL	20 2	. D	С		Α	Yes	í				
Methylamyl acetate	MAC	34	D	D		Α	Yes	ď				
Methylamyl alcohol	MAA	_	D	D		A	Yes	1				
Methyl amyl ketone	MAK		D	D		Α	Yes	-1				
Methyl tert-butyl ether	MBE			С		Α	Yes	4				
Methyl butyl ketone	MBK		D	С		Α	Yes	1				
Methyl butyrate	MBU			c		A	Yes	1				
Melhylcyclohexane	MCY		D	c		A	Yes	4				
Methyl ethyl ketone	MEK			c		Α	Yes	4				
Methyl heptyl ketone	MHK		D	D		A	Yes	1				
Methyl isobutyl ketone	MIK	18 2		C		A	Yes	1				
Mineral spirits	MNS		D			Α	Yes	-1				
Myrcene	MRE		D	D		A	Yes	1				
Naphtha: Heavy	NAG		D	#		A	Yes	1				
	14/10	- 33		77	-	^	169					

<sup>\*\*\*</sup> This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. \*\*\*

Yes

PTN

NSV

Serial #: C1-1902062

Dated: 26-Jun-19



# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: FMT 3304 Official #: 1294604

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Shipyard: Arcosa Ashland City

	Conditions of Carriage				
Naphtha: Varnish makers and painters (75%)         NVM         33         D         C         A         Yes         1           Nonane (all isomers), see Alkanes (C6-C9)         NAX         31         D         D         A         Yes         1           Nonene (all isomers)         NON         30         D         D         A         Yes         2           Nonyl alcohol (all isomers)         NNS         20 2         D         E         A         Yes         1           Nonyl phenol         NNP         21         D         E         A         Yes         1           Nonyl phenol poly(4+)ethoxylates         NPE         40         D         E         A         Yes         1           Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanoi (all isomers)         OCX         20 2         D         E         A         Yes         1           Octanoi (all isomers)         OCX         20 2         D         E         A         Yes         1 <th>Insp Period</th>	Insp Period				
Naphtha: Varnish makers and painters (75%)         NVM         33         D         C         A         Yes         1           Nonane (all isomers), see Alkanes (C6-C9)         NAX         31         D         D         A         Yes         1           Nonene (all isomers)         NON         30         D         D         A         Yes         2           Nonyl alcohol (all isomers)         NNS         20 °         D         E         A         Yes         1           Nonyl phenol         NNP         21         D         E         A         Yes         1           Nonyl phenol poly(4+)ethoxylates         NPE         40         D         E         A         Yes         1           Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanoic acid (all isomers)         OCX         20 °         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         1 </td <td></td>					
Nonane (all isomers), see Alkanes (C6-C9)         NAX         31         D         D         A         Yes         1           Nonene (all isomers)         NON         30         D         D         A         Yes         2           Nonyl alcohol (all isomers)         NNS         20 °         D         E         A         Yes         1           Nonyl phenol         NNP         21         D         E         A         Yes         1           Nonyl phenol poly(4+)ethoxylates         NPE         40         D         E         A         Yes         1           Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanol (all isomers)         OCX         20 °         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         1					
Nonene (all isomers)         NON         30         D         D         A         Yes         2           Nonyl alcohol (all isomers)         NNS         20 ° 2         D         E         A         Yes         1           Nonyl phenol         NNP         21         D         E         A         Yes         1           Nonyl phenol poly(4+)ethoxylates         NPE         40         D         E         A         Yes         1           Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanol (all isomers)         OCX         20 ° 2         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         1					
Nonyl alcohol (all isomers)         NNS         20 ²         D         E         A         Yes         1           Nonyl phenol         NNP         21         D         E         A         Yes         1           Nonyl phenol poly(4+)ethoxylates         NPE         40         D         E         A         Yes         1           Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanol (all isomers)         OCX         20 ²         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         2					
Nonyl phenol         NNP         21         D         E         A         Yes         1           Nonyl phenol poly(4+)ethoxylates         NPE         40         D         E         A         Yes         1           Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanol (all isomers)         OCX         20 2         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         2					
Nonyl phenol poly(4+)ethoxylates         NPE         40         D         E         A         Yes         1           Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanol (all isomers)         OCX         20 2         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         2					
Octane (all isomers), see Alkanes (C6-C9)         OAX         31         D         C         A         Yes         1           Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanoi (all isomers)         OCX         20 2         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         2					
Octanoic acid (all isomers)         OAY         4         D         E         A         Yes         1           Octanol (all isomers)         OCX         20 ° 2         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         2					
Octanol (all isomers)         OCX         20 ²         D         E         A         Yes         1           Octene (all isomers)         OTX         30         D         C         A         Yes         2					
Octene (all isomers) OTX 30 D C A Yes 2					
Oil, fuel: No. 2 OTW 33 D D/E A Yes 1					
Oil, fuel: No. 2-D OTD 33 D D A Yes 1					
Oil, fuel: No. 4 OFR 33 D D/E A Yes 1					
Oil, fuel: No. 6 OSX 33 D E A Yes 1					
Oil, misc: Crude OIL 33 D A/D A Yes 1					
Oil, misc: Diesel ODS 33 D D/E A Yes 1					
Oil, misc: Gas, high pour OGP 33 D E A Yes 1					
Oil, misc: Lubricating OLB 33 D E A Yes 1					
Oil, misc: Residual ORL 33 D E A Yes 1					
Oil, misc: Turbine OTB 33 D E A Yes 1					
alpha-Olefins (C6-C18) mixtures OAM 30 D E A Yes 1					
Olefins (C13+, all isomers) OFZ 30 D E A Yes 1					
Pentane (all isomers) PTY 31 D A A Yes 5					
Pentene (all isomers) PTX 30 D A A Yes 5					
n-Penlyl propionate PPE 34 D D A Yes 1					
alpha-Pinene PIO 30 D D A Yes 1					
beta-Pinene PIP 30 D D A Yes					
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether PAG 40 D E A Yes 1					
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate PAF 34 D E A Yes 1					
Polybutene PLB 30 D E A Yes 1					
Polypropylene glycol PGC 40 D E A Yes 1					
Isopropyi acetate IAC 34 D C A Yes 1					
n-Propyl acetate PAT 34 D C A Yes 1					
Isopropyl alcohol IPA 20 2,3 D C A Yes 1					
n-Propyl alcohol PAL 20 <sup>2</sup> D C A Yes 1					
Propylbenzene (all isomers)  PBY 32 D D A Yes 1					
Isopropylcyclohexane IPX 31 D D A Yes 1					

<sup>\*\*\*</sup> This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. \*\*\*



Serial #: C1-1902062 Dated: 26-Jun-19

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: FMT 3304 Official #: 1294604

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Shipyard: Arcosa Ashland City

Official #: 1294604			Page 8	of 9		Hull #: 5415							
Cargo Identifica	tion	on						Conditions of Carriage					
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Huil Type	Tank Group	App'd	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp Period			
Propylene glycol	PPG	20 2	D	E		Α	Yes	1					
Propylene glycol methyl ether acetate	PGN	34	D	D		Α	Yes	1					
Propylene tetramer	PTT	30	D	D		Α	Yes	1					
Sulfolane	SFL	39	D	E		Α	Yes	Ħ					
Tetraethylene glycol	TTG	40	D	Ε		Α	Yes	4					
Tetrahydronaphthalene	THN	32	D	E		Α	Yes	1					
Toluene	TOL	32	D	С		Α	Yes	1					
Tricresyl phosphate (containing less than 1% ortho isomer)	TCP	34	D	Ε		Α	Yes	1					
Triethylbenzene	TEB	32	D	E		Α	Yes	1					
Triethylene glycol	TEG	40	D	Е		Α	Yes	1					
Triethyl phosphate	TPS	34	D	E		Α	Yes	1					
Trimethylbenzene (all isomers)	TRE	32	D	{D}		Α	Yes	1					
Trixylyl phosphate	TRP	34	D	E		Α	Yes	1					
1-Undecene	UDC	30	D	D/E		Α	Yes	1_					
1-Undecyl alcohol	UND	20	D	E		А	Yes	1					
Xylenes (ortho-, meta-, para-)	XLX	32	D	D		Α	Yes	1					



Vessel Name: FMT 3304

Official #: 1294604

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

Serial #: C1-1902062

Dated: 26-Jun-19

# Certificate of Inspection

Cargo Authority Attachment

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Shipyard: Arcosa Ashlan

Hull #: 5415

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

Cargo Identification

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

Chem Code Certain mixtures of cargoes may not have a CHRIS Code assigned.

Compatability Group No.

The cargo reactive group number assigned for compatibility determinations in 46 CFR Part 150 Tables I and II. In accordance with 46 CFR 150.130, the Person-in-Charge of The barge is responsible for ensuring that the compatibility requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibility unique memory and personal per

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

Subchapter Subchapter O

Note 1 Note 2

> 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 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 45 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

A, B, C D, E Note 4

Flammable liquid cargoes, as defined in 46 CFR 30-10,22

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

The flammability/combustibility gratte of these cargoes may vary depending upon the flashpoint and Reid vapor pressure. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.

NA

Those subchapter O cargoes which are not classified as a flammable or combustible liquid.

No flammability/combustibility grade has been assigned yet, as the necessary flash point/vapor pressure data for such assignments are presently not available.

Hull Type

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

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.

Conditions of Carriage

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

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

Conditions of Carriage

Tank Group Vapor Recovery Approved (Y or N) The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo

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

VCS Category

Category 1

(No additional VCS requirements above those for berzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.20-11) and the pressure drop calculations (46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates

Category 2

(Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety componenets and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuring all VCS safety components are functional and polymer build-up is not causing an unsafe condition due to increased pressure in the vapor control piping and cargo tanks. The method shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester

Calegory 3

(Flighty toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39,20-9. This requirement is in addition to the requirements of Category 1.

Category 4

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

Calegory 5

(High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 1 cargoes. Consult the Marine Safety Center's VCS Guidelines for further information. This requirement is in addition to the requirements of Category 1.

Category 6 Category 7

(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