DEPARTMENT OF HOMELAND SECURITY U. S. COAST GUARD CG-858 (Rev. 8-74)

### CERTIFICATE OF INSPECTION AMENDMENT



NAME OF VESSEL

OFFICIAL NUMBER

KIRBY 30-01

1254583

CLASS

**GROSS TONS** 

HOME PORT

TANK BARGE

R-2350

HOUMA, LA

WHEN AND WHERE BUILT

MORGAN CITY, LA DELIVERY DATE: 16 JAN 2015

DATE CURRENT CERTIFICATE OF INSPECTION EXPIRES

DATE AND PLACE CURRENT CERTIFICATE OF INSPECTION

13 Apr 2025

13 April 2020, PORT ARTHUR, TX

The Certificate of Inspection issued to the vessel described above is amended as follows:

\*Internal Structure Dates\*

NEXT EXAM

LAST EXAM

PRIOR TO LAST

28Mar2025

08Mar2022

13Apr2020

THIS/THESE AMENDMENT(S) SHALL AUTOMATICALLY APPEAR ON THE NEXT COI THAT IS ISSUED FOR THIS VESSEL. PLEASE ATTACH THIS FORM TO THE CURRENT COI FOR REFERENCE BY ANY CONCERNED PARTIES.

DATE OF ISSUE

08 Mar 2022

INSPECTION ZONE

PORT ARTHUR, TEXAS

K.A. Hantal, CDR,

OFFICER IN CHARGE, MARINE INSPECTION



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

Certification Date: 13 Apr 2020 Expiration Date: 13 Apr 2025

Certificate of Inspection

For ships on intermetional yourness this confidence fulfills the requirements of SOLAS 74 as amended, regulation V/14, for a SAFE MANNING DOCUMENT.

KIRBY 30-01	Official Number	MO Number	Call Sign	Tank Barge	
Hailing Port HOUMA, LA	Hull Material Steel	Horsepower	Propulsion		8.
UNITED STATES				,	y <sup>‡</sup>
Place Built MORGAN CITY, LA	Delivery Date 16Jan2015	Keel Laid Date Gross Tons 01Nov2013	Net Tons R-	DWT Length R-294.6	
UNITED STATES		<b>1-2350</b>	I-1024	I-294.6	
Owner KIRBY INLAND MARINE 55 WAUGH DR STE 1000 HOUSTON, TX 77007 UNITED STATES		Operator KIRBY INLAND 18350 Market St Channelview, TX UNITED STATE	reet 277530	*	•
	ed with the following licensed Certified Tankermen, 0 HSC			ich there must be	1
0 Masters 0 Chief Mates 0 Second Mates 0 Third Mates 0 Master First Class Pilot 0 Mate First Class Pilots	0 First Class Pilots 0 First 0 Radio Officers 0 Seco 0 Able Seamen 0 Third 0 Ordinary Seamen 0 Licer	Engineers 0 O Assistant Engineers Ind Assistant Engineers Assistant Engineers Issed Engineers Ified Member Engineer			ž

Route Permitted And Conditions Of Operation:

#### ---Oceans---

Persons allowed: 0

Barge is to be loaded and operated in accordance with the restrictions placed on its stability letter, Serial No. C1-1500193, dated January 14, 2015, and on current Loadline Certificate.

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

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

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

	Annual/Perio	odic/Re-Ins <sub>i</sub>	pection	This certificate issued by
Date	Zone	A/P/R	Signature	J.J. ANDREW, CDR, USCG, By direction
3-8-22	PA TX	A	Jeremy F.X.	Officer in Charge, Marine Inspection  Marine Safety Unit Port Afthur
2-21-24	SA TX	A	Billon Berry	Inspection Zone



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

Certification Date: 13 Apr 2020 Expiration Date: 13 Apr 2025

# Certificate of Inspection

Vessel Name: KIRBY 30-01

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

31Jan2025

13Apr2020

16Jan2015

Internal Structure

31Dec2022

13Apr2020

05Dec2017

---Stability---

Type

**Issued Date** 

Office

Letter

14Jan2015

Morgan City, LA

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

Authorization:

Flammable/Combustible Liquids

**Total Capacity** 

Units

Highest Grade Type

Part151 Regulated

Part153 Regulated

Part154 Regulated

29040

Barrels

Δ

No

No

No

### \*Hazardous Bulk Solids Authority\*

Not Authorized

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

Tank Number	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1 P/S	509	12.5
2 P/S	509	12.5
3 P/S	509	12.5
4 P/S	509	12.5
5 P/S	509	12.5

### \*Loading Constraints - Stability\*

**Hull Type** 

Maximum Load (short tons)

Maximum Draft

Max Density

(lbs/gal)

Route Description

Ш

5094

(ft/in) 12ft 6in

8.7

## \*Conditions Of Carriage\*

Only those specified hazardous cargoes named in the vessel's Cargo Authority Attachment (CAA), serial # C1-1403066, dated September 16, 2014, may be carried. The specified hazardous cargoes may be carried only in the tanks indicated.

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

### \*Vapor Control Authorization\*

Per 46 CFR 39, excluding Part 39.4000, this vessel's vapor control system (VCS) has been inspected to the plans approved by Marine Safety Center letter serial # C1-1403066, dated September 16, 2014, and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

The VCS has been approved with a pressure side of 1.5 psig pressure vacuum (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.

### --- Inspection Status ---



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

Certification Date: 13 Apr 2020 Expiration Date: 13 Apr 2025

# Certificate of Inspection

Vessel Name: KIRBY 30-01

*Cargo Tanks*				8		
H	Internal Exam	i		External Ex	am	
Tank ld	Previous	Last	Next	Previous	Last	Next
1 P/S	16Jan2015	13Apr2020	30Apr2030	-	-	-
2 P/S	16Jan2015	13Apr2020	30Apr2030	-	-	<b>=</b> 0
3 P/S	16Jan2015	13Apr2020	30Apr2030	-	-	-
4 P/S	16Jan2015	13Apr2020	30Apr2030	-	-	-
5 P/S	16Jan2015	13Apr2020	30Apr2030		=	<del>=</del>
			Hydro Test			
Tank Id	Safety Valves	5	Previous	Last	Next	
1 P/S	-		-	-	-	
2 P/S	=		-	-	-	
3 P/S	=		-	_		
4 P/S	-		-	-	-	
5 P/S	-			-	_	

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

Required Only During Transfer of Cargo or Operation of Barge Machinery

## --- Fire Fighting Equipment ---

Number of Fireman Outfits - 0

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

Quantity

Class Type

2

40-B

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



# Certificate of Inspection

# Cargo Authority Attachment

Vessel Name: **Kirby 30-01**Official #: 1254583

Shipyard: Halimar

Serial #: C1-1403066

16-Sep-14

Dated:

Hull #: 178

Tai	nk Group Characteristics	5			
Tnk Grp	Tanks in Group	Density	Flammability Grade	Fire Protection	Comments
Α	#1P/S, #2P/S, #3P/S, #4P/S, #5 P/S	8.7	A	Portable	None

This vessel is approved to collect vapors of the following 46 CFR Subchapter D flammable and/or combustible liquid cargoes using the approved onboard vapor control system.

**Subchapter D Cargoes Authorized for Vapor Control** 

Cargo Identification					Condition	ons of C	arriage
Name	Chem Code	Compat Group No	IMO Pollution Category	Grade	Tank Group	Vapor Re App'd (Y or N)	vcs Category
Acetone	ACT	18 <sup>2</sup>	111	С	Α	Yes	1
Acetophenone	ACP		@D	E	Α	Yes	1
Alcohol(C12-C16) poly(1-6)ethoxylates	APU	20	A	Ε	Α	Yes	1
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates	AEB	20	В	Е	Α	Yes	1
Amyl acetate (all isomers)	AEC	34	С	D	Α	Yes	1
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D	Α	Yes	1
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters)	BFX	20	D	E	A	Yes	11
Butyl acetate (all isomers)	BAX	34	С	D	Α	Yes	1
Butyl alcohol (iso-)	IAL	20 <sup>2</sup>	111	D	Α	Yes	1
Butyl alcohol (n-)	BAN	20 <sup>2</sup>	III	D	Α	Yes	1
Butyl alcohol (sec-)	BAS	20 <sup>2</sup>	Ш	С	Α	Yes	1
Butyl alcohol (tert-)	BAT	20 <sup>2</sup>	111	С	Α	Yes	1
Butyl toluene	BUE	32	@A	D	Α	Yes	1
Cyclohexane	CHX	31	С	С	Α	Yes	1
Cyclohexanol	CHN	20	D	Е	Α	Yes	1
p-Cymene	CMP	32	С	D	Α	Yes	1
iso-Decaldehyde	IDA	19	@C	Ε	Α	Yes	1
n-Decaldehyde	DAL	19	@B	E	A	Yes	1
Decene	DCE	30	В	D	Α	Yes	11
Decyl alcohol (all isomers)	DAX	20 <sup>2</sup>	В	Ε	Α	Yes	1
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	111	E	Α	Yes	1
Diacetone alcohol	DAA	20 <sup>2</sup>	D	D	Α	Yes	11
Diethylbenzene	DEB	32	Α	D	Α	Yes	1
Diisobutylene	DBL	30	В	С	Α	Yes	1
Diisobutyl ketone	DIK	18	D	D	Α	Yes	1
Diisopropylbenzene (all isomers)	DIX	32	Α	E	Α	Yes	11
Dioctyl phthalate	DOP	34	III	E	Α	Yes	1
Dipentene	DPN	30	С	D	Α	Yes	1
Diphenyl	DIL	32	A	D/E	Α	Yes	1
Dipropylene glycol	DPG	40		E	Α	Yes	1
Distillates: Flashed feed stocks	DFF	33		E	A	Yes	1
Distillates: Straight run	DSR	33	1	E	Α	Yes	11
Dodecene (all isomers)	DOZ	30	В	D	Α	Yes	1
Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32	111	E	Α	Yes	11
2-Ethoxyethyl acetate	EEA	34	С	D	Α	Yes	1
Ethoxy triglycol (crude)	ETG	40	D	E	Α	Yes	11



# Certificate of Inspection

# Cargo Authority Attachment

Vessel Name: **Kirby 30-01**Official #: 1254583

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Shipyard: Halimar

Serial #: C1-1403066

16-Sep-14

Hull #: 178

Cargo Identification					Conditions of Carr				
Name	Chem Code	Compat Group No	IMO Pollution Category	Grade	Tank Group	Vapor R App'd (Y or N)	Recovery VCS Category		
Ethyl acetate	ETA	34	D	С	Α .	Yes	1		
Ethyl alcohol	EAL	20 <sup>2</sup>	III	С	Α	Yes	1		
Ethylbenzene	ETB	32	В	С	A	Yes	1		
Ethyl butanol	EBT	20	@D	D	Α Α	Yes	1		
Ethyl tert-butyl ether	EBE	41	C	С	A	Yes	1		
Ethyl butyrate	EBR	34	С	D	A	Yes	1		
Ethyl cyclohexane	ECY	31	С	D	A	Yes	1		
Ethylene glycol butyl ether acetate	EMA	34	c	E	A	Yes	1		
	EPE	40	D	E	A		1		
ithylene glycol phenyl ether	EEP	34	С	 D		Yes			
thyl-3-ethoxypropionate					A	Yes	1		
-Ethylhexanol	EHX	20	@C	E	A	Yes	1		
thyl propionate	EPR	34	D	C	A	Yes			
thyl toluene	ETE	32	В	D	A	Yes	1		
asoline blending stocks: Alkylates	GAK	33		A/C	A	Yes	1		
asoline blending stocks: Reformates	GRF	33		A/C	Α	Yes	1		
asolines: Automotive (containing not over 4.23 grams lead per gallon)	GAT	33		С	Α	Yes	1		
asolines: Aviation (containing not over 4.86 grams of lead per gallon)	GAV	33	ı	С	Α	Yes	1		
asolines: Casinghead (natural)	GCS	33		A/C	Α	Yes	1		
asolines: Polymer	GPL	33		A/C	Α	Yes	1		
asolines: Straight run	GSR	33	1	A/C	Α	Yes	1		
eptane (all isomers), see Alkanes (C6-C9) (all isomers)	НМХ	31	С	С	Α	Yes	1		
eptanoic acid	HEP	4	D	E	Α	Yes	1		
eptanol (all isomers)	HTX	20	С	D/E	Α	Yes	1		
eptyl acetate	HPE	34	В	E	Α	Yes	11		
exane (all isomers), see Alkanes (C6-C9)	HXS	31 <sup>2</sup>	С	B/C	Α	Yes	1		
exanoic acid	НХО	4	D	E	Α	Yes	1		
exanol	HXN	20	D	D	Α	Yes	1		
exylene glycol	HXG	20	III	E	Α	Yes	1		
ophorone	IPH	18 <sup>2</sup>	D	E	Α	Yes	1		
et fuel: JP-4	JPF	33	1	E	Α	Yes	1		
et fuel: JP-5 (kerosene, heavy)	JPV	33	1	D	Α	Yes	1		
erosene	KRS	33	1	D	Α	Yes	1		
ethyl acetate	MTT	34	III	D	Α	Yes	1		
ethyl alcohol	MAL	20 <sup>2</sup>	D	С	Α	Yes	1		
ethylamyl acetate	MAC	34	С	D	Α	Yes	1		
ethylamyl alcohol	MAA	20	С	D	Α	Yes	1		
ethyl amyl ketone	MAK	18	D	D	Α	Yes	1		
ethyl tert-butyl ether	MBE	41 2	D	C	A	Yes	1		
ethyl butyl ketone	MBK	18	D	С	Α	Yes	1		
ethyl butyrate	MBU	34	С	С	A	Yes	1		
ethyl ethyl ketone	MEK	18 <sup>2</sup>	III	С	Α	Yes	1		
ethyl heptyl ketone	MHK	18	В	D	A	Yes	1		
ethyl isobutyl ketone	MIK	18 <sup>2</sup>	D	С	Α	Yes	1		
ethyl naphthalene (molten)	MNA	32	A	E	A	Yes	1		
ineral spirits	MNS	33	1	D	A	Yes	1		
rcene	MRE	30	D	D	A	Yes	1		
aphtha: Heavy	NAG	33	@I	#	A	Yes	1		
aphtha: Petroleum	PTN	33	l I	#	A	Yes	1		



# Certificate of Inspection

# Cargo Authority Attachment

Vessel Name: **Kirby 30-01**Official #: 1254583

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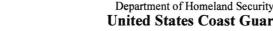
Shipyard: Halimar

C1-1403066

16-Sep-14

Hull #: 178

Cargo Identification						Conditio	ons of	Carriag
Name		hem ode	Compat Group No	IMO Pollution Category	Grade	Tank Group	Vapor F App'd (Y or N)	VCS Category
Naphtha: Solvent	N	ISV	33	@	D	Α	Yes	1
Naphtha: Stoddard solvent	N	ISS	33	@1	D	Α	Yes	1
Naphtha: Varnish makers and painters (75%)	N	I∨M	33	@I	С	Α	Yes	1
Nonane (all isomers), see Alkanes (C6-C9)	N	IAX	31	С	D	Α	Yes	1
Nonyl alcohol (all isomers)	N	INS	20 <sup>2</sup>	С	Е	Α	Yes	1
Nonyl phenol	N	INP	21	Α	E	Α	Yes	1
Nonyl phenol poly(4+)ethoxylates	N	IPE	40	В	Ε	Α	Yes	1
Octane (all isomers), see Alkanes (C6-C9)	O	XAC	31	С	С	Α	Yes	1
Octanoic acid (all isomers)	0	PAY	4	D	Е	Α	Yes	1
Octanol (all isomers)		CX	20 <sup>2</sup>	С	E	A	Yes	1
Oil, fuel: No. 2		TW	33	i	D/E	Α	Yes	1
Oil, fuel: No. 2-D		OTD	33	i	D	A	Yes	1
Oil, fuel: No. 4		FR	33		D/E	Α	Yes	1
Oil, fuel: No. 5		FV	33	<u> </u>	D/E	Α	Yes	1
Oil, fuel: No. 6		SX	33	i	E	A	Yes	
		)IL	33	<u>'</u>	A/D	A		1
Dil, misc: Crude		DS	33		D/E		Yes	
Oil, misc: Diesel						A	Yes	1
Dil, misc: Gas, high pour		GP.	33	@I 	E	A	Yes	1
Dil, misc: Lubricating		LB	33	<u> </u>	_E	A	Yes	1
Dil, misc: Residual		RL	33		E	Α	Yes	1
Dil, misc: Turbine		TB	33		E	Α	Yes	1
n-Pentyl propionate		PE	34	С	D	Α	Yes	1
alpha-Pinene		10	30	Α	D	Α	Yes	1
peta-Pinene		IP	30	В	D	Α	Yes	11
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether		AG	40	D	Е	Α	Yes	1
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate	P	AF	34	D	E	A	Yes	1
Polybutene		LB	30		E	Α	Yes	1
Polypropylene glycol		GC	40	D	E	Α	Yes	1
so-Propyl acetate	IA	AC.	34	Ш	С	Α	Yes	1
n-Propyl acetate	P/	AT_	34	D	С	A	Yes	1
so-Propyl alcohol	IP	PA	20 <sup>2</sup>	III	С	A	Yes	1
n-Propyl alcohol	P	AL	20 <sup>2</sup>	Ш	С	Α	Yes	1
Propylbenzene (all isomers)	PI	BY	32	Α	D	Α	Yes	1
so-Propylcyclohexane	IP	X	31	С	D	Α	Yes	1
Propylene glycol	PI	PG	20 <sup>2</sup>	III	E	Α	Yes	11
Propylene glycol methyl ether acetate	Po	GN	34	D	D	Α	Yes	1
Propylene tetramer	P	TT	30	В	D	Α	Yes	1
Sulfolane		FL	39	D	E	Α	Yes	1
etrahydronaphthalene		HN	32	С	E	Α	Yes	1
oluene		OL	32	С	С	Α	Yes	1
Tricresyl phosphate (less than 1% of the ortho isomer)		CP	34	A	E	Α	Yes	1
riethylbenzene		EB	32	Α	E	Α	Yes	1
rimethylbenzene (all isomers)		RE	32	A	{D}	A	Yes	1
rixylenyl phosphate		RP	34	A	E	A	Yes	1
Indecene		DC	30	В	D/E	A	Yes	1
I-Undecyl alcohol		ND	20	В	E	A	Yes	1
		LX	32	С	D	A	Yes	1
(ylenes (ortho-, meta-, para-)			JZ	<u> </u>	<u> </u>		162	



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

Serial # C1-1403066

16-Sep-14



# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: Kirby 30-01 Official #: 1254583

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Shipyard: Halimar

Hull #: 178

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

The proper shipping name as listed in 46 CFR Table 30.25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2.

Chem Code The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual.

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

Compatability Group No.

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

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

Note 1

Chart. For additional compatibility information, contact Commandant (G-MSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 267-1217.

Note 2

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

Subchapter

The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified.

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. Subchapter D

Subchapter O

Those cargoes listed in 46 CFR Part 153 Table 2 are non-regulated cargoes when carried in bulk on non-oceangoing barges.

Grade

The cargo classification assigned to each flammable or combustible liquid. Grades inside of "{ }" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of

A, B, C D, E that grade of cargo. Flammable liquid cargoes, as defined in 46 CFR 30-10.22

Note 4

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

NA cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo. Those subchapter O cargoes which are not classified as a flammable or combustible liquid.

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

Hull Type

The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1. Designed to carry products which require the maximum preventive measures to preclude the uncontrolled release of the cargo. See 46 CFR 151.10-1(b)(1).

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

NΔ Not applicable to barges certificated under Subchapter D.

### Conditions of Carriage

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

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

VCS Category:

The specified cargo's provisional classification for vapor control systems

Category 1

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

Category 2

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

Category 3

(Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39.20-9. This requirement is in addition to the requirements of Category 1.

Category 4

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

Category 5

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

Category 6

(High vapor pressure and highly toxic) Must comply with requirements of Categories 1, 3 and 5 (High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5

Category 7 none

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