

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

Certification Date: 23 May 2019 23 May 2024 **Expiration Date:**

Certificate of Inspection

national voyages this certificate fulfills the requirements of SOLAS 74 as amended, regulation V/14, for a BAFE MANNING DOCUMENT.

	A2 11					
Vessel Name	Official Number	iMO Num	ber	Call Sign	Service	
KIRBY 30026B	1139043				Tank Ba	irg a
Hailing Port	. Mad Mariana	U		N		····
WILMINGTON, DE	· Hull Material Steel	riojs	apower	Propulation		
UNITED STATES						
Place Bulli	Delivery Date	Keel Laid Dale	Gross Tons	Net Tons	DWT	Length
GALVESTON, TX	27Jan2004	08Sep2003	R-1619	R-1619	••••	R-297.5
UNITED STATES	275812004	000ep2000	٠	j.		+0
William Wirthman						
Owner		Operato	·	·		
KIRBY INLAND MARINE, LP	w.	KIRE	Y INLAND	MARINE, LP		
55 Waugh Drive Suite 1000 Houston, TX 77007	The second		0 Market St NNELVIEW			
UNITED STATES			ED STATE	<u>.</u>		
			ı (r.	,		
This vessel must be manned with the O Certified Lifeboatmen, O Certified	e following licensed Tankermen, 0 HSC	and unlicensed Type Rating, a	d Personnel. and 0 GMDS	. Included in wh SS Operators.	nich there mus	st be
0 Masters 2 0 License	ed Mates 0 Chief	Engineers	0 01	ters	**************************************	
		Assistant Enginee	rs .			
0 Second Mates 0 Radio 0		d Assistant Engir				
0 Third Mates 0 Able So 0 Master First Class Pilot 0 Ordinal	1. 1. 4. 4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Assistant Engined and Engineers	ers	3		
0 Mate First Class Pilots 0 Deckha		ied Member Engir	near .	*		•
In addition, this vessel may carry 0 f Persons allowed: 0				ns in addition to	crew, and no	Others. Total
Route Permitted And Conditions	Of Operation:	, ,		1		· · · · · · · · · · · · · · · · · · ·
Lakes, Bays, and Sound	· · · · · · · · · · · · · · · · · · ·	Coastwise		100	y .	
		V 1				* •
Also, in fair weather only, not Florida.	more than twelve	(12) miles f	rom shore l	between St. M	arks and Car	rabelle,
This vessel has been granted a vessel is operated in salt wate salt water intervals per 46 CFR change in status occurs.	r more than 6 mont	hs in any 12	month per: ant OCMI n	iod, the vesse	al must be in	nspected using
This tank barge is participating	g in the Eighth &	Ninth Coast	Guard Dist	rict's Tank B	arge Streaml	ined Inspection
SEE NEXT PAGE FOR ADDIT	TIONAL CERTIFIC	ATE INFORM	IATION		-	
With this Inspection for Certification Inspection, Marine Safety Unit Port A laws and the rules and regulations p	Arthur certified the ve	essel, in all res	hur, TX, UN pects, is in c	ITED STATES conformity with	the Officer in the applicable	Charge, Marine vessel inspection
Annual/Periodic/Re			is certificate	s issued hy	111	
Date Zone A/P	/R Signatur			ANDREW, CDF	HSCG Pu	direction
3-17-20 Padky 78618 A	- Lift Miller	O#6	cer in Charge, Mai		1, 0000, by	an & CHOT
5-6-2021 Corpus christy P	Michael W.	Dhis.	,	Marine Safety	Unit Port Arti	nur ⁱ
5-20-2022 Sch. Roys A	Roderige H.	Deix Tos	ection Zone	oatoty	-int with	
1-3-2023 New Octeans A	Troth Chan	للم			1	·



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

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Vessel Name: KIRBY 30026B

Program (TBSIP). Inspection activities aboard this barge shall be conducted per its Tank Barge Action Plan (TAP). Inspection issues concerning this barge should be directed to OCMI Houston-Galveston.

---Hull Exams---

 Exam Type
 Next Exam
 Last Exam
 Prior Exam

 DryDock
 15Apr2024
 15Apr2014
 27Jan2004

 Internal Structure
 30Apr2024
 23May2019
 15Apr2014

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

Authorization: FLAMMABLE/COMBUSTIBLE LIQUIDS AND SPECIFIED HAZARDOUS CARGOES

Total Capacity Units Highest Grade Type Part151 Regulated Part153 Regulated Part154 Regulated

31267 Barrel A Yes No No

Hazardous Bulk Solids Authority

Not Authorized

Loading Constraints - Structural

Tank Location Description	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1 P/S	977	13.6
2 P/S	977	13.6
3 P/S	136	

Loading Constraints - Stability

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
П	3406	10ft 3in	13.6	R, LBS
Ш	5540	11ft 0in	13.6	R, LBS

Conditions Of Carriage

Only those specified hazardous cargoes named in the vessel's Cargo Authority Attachment (CAA), Serial #C1-0202102, dated June 24, 2002, may be carried. The specified hazardous cargoes may be carried only in the tanks indicated.

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

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 39.40, this vessel's vapor control system (VCS) has been inspected to the plans approved by Marine Safety Center letter serial Marine Safety Center letters Serial #C2-0201100, dated April 11, 2002, and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

Per 46 CFR 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.

Stability and Trim

Cargo tanks must be loaded uniformly whenever a 46 CFR Subchapter "O" cargo is carried; for trim purposes, the weight of

Compared to the control of the contr



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cargo in each tank may exceed the uniformly loaded tank cargo weight by at most 5 percent.

Deck Slop Tank

Deck slop tank is authorized for Grade "A" and lower and specified hazardous cargoes.

--- Inspection Status ---

Cargo Tanks

	Internal Exam	1		External Exa	m	
Tank Id	Previous	Last	Next	Previous	Last	Next
1 P/S	27Jan2004	15Apr2014	15Apr2024	8 -	-	8 <u>88</u>
2 P/S	27Jan2004	15Apr2014	15Apr2024	:-	-	
3 P/S	27Jan2004	15Apr2014	15Apr2024	-		-
			Hydro Test			
Tank Id	Safety Valves	;	Previous	Last	Next	
1 P/S	-		<u></u>	27Jan2004	X = X	
2 P/S	-		-	27Jan2004	-	
3 P/S	-		u u	27Jan2004	-	

--- 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

Quaritity

2

B-II

END





Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 30026B

Official #: 1139043

Shipyard: West Gulf Marine

Serial #: C1-0202102

Generated: 24-Jun-02

Hull #: 138

46 CFR 151 Tank	Group (Charac	terist	ics											.00		
Tank Group Information	Cargo I	dentificati	on		Cargo		Tanks		Car		Environ		Fire	Special Require	ments	T	Τ
Tnk Grp Tanks in Group	Density	Press.	Temp.		Seg Tank	T	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec Haz	Temp Cont
A all	13.6	Atmos.	Amb.	11	1ii 2ii	Integral Gravity	PV	Closed	II	G-1	NR	NA	Portable	.50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50-	55-1(b), (c), (e), (f), (h), 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.

List of Authorized Cargoes

Cargo Identification							Co	nditio	ns of Carriage
	0						Vapor R		
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	(Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction
Authorized Subchapter O Cargoes									
Acetonitrile	ATN	37	0	С	III	Α	Yes	3	No
Acrylonitrile	ACN	15 ²	0	С	11	Α	Yes	4	.50-70(a), .55-1(e)
Adiponitrile	ADN	37	0	Е	11	Α	Yes	1	No
Alkyl(C7-C9) nitrates	AKN	34 ²	0	NA	111	Α	No	N/A	.50-81, .50-86
Aminoethylethanolamine	AEE	8	0	E	111	Α	Yes	1	.55-1(b)
Ammonium bisulfite solution (70% or less)	ABX	43 2	0	NA	111	A	No	N/A	.50-73, .56-1(a), (b), (c)
Ammonium hydroxide (28% or less NH3)	AMH	6	0	NA	III	A	No	N/A	.56-1(a), (b), (c), (f), (g)
Anthracene oil (Coal tar fraction)	АНО	33	0	NA	II	A	No	N/A	No
Benzene	BNZ	32	0	С	111	A	Yes	1	.50-60
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	ВНВ	32 ²	0	NA	111	A	Yes	1	.50-60
Benzene or hydrocarbon mixtures (containing Acetylene and 10%	ВНА	32 ²	0	NA	111	A	Yes	1	.50-60, .56-1(b), (d), (f), (g)
Benzene or more)									
Benzene, Toluene, Xylene mixtures (10% Benzene or more)	BTX	32	0	B/C	111	Α	Yes	1	.50-60
Butyl acrylate (all isomers)	BAR	14	0	D	111	Α	Yes	2	.50-70(a), .50-81(a), (b)
Butyl methacrylate	BMH	14	0	D	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)
Butyraldehyde (all isomers)	BAE	19	0	С	111	Α	Yes	1	.55-1(h)
Camphor oil (light)	СРО	18	0	D	11	Α	No	N/A	No
Carbon tetrachloride	CBT	36	0	NA	111	Α	No	N/A	No
Chemical Oil (refined, containing phenolics)	COD	21	0	E	- 11	Α	No	N/A	.50-73
Chlorobenzene	CRB	36	0	D	III	Α	Yes	1	No
Chloroform	CRF	36	0	E	111	Α	Yes	3	No
Coal tar naphtha solvent	NCT	33	0	D	III	Α	Yes	1	.50-73
Creosote	CCW	21 ²	0	E	Ш	Α	Yes	1	No
Cresols (all isomers)	CRS	21	0	E	111	Α	Yes	1	No
Cresylate spent caustic	CSC	5	0	NA	III	Α	No	N/A	.50-73, .55-1(b)
Cresylic acid tar	CRX		0		III	Α	Yes	1	.55-1(f)
Crotonaldehyde	CTA	19 ²	0	С	II	Α	Yes	4	.55-1(h)
Crude hydrocarbon feedstock (containing Butyraldehydes and	CHG		0		III	Α	No	N/A	No
Ethylpropyl acrolein)									
Cyclohexanone	ССН	18	0	D	Ш	Α	Yes	1	.56-1(a), (b)
Cyclohexanone, Cyclohexanol mixture	CYX	18 ²	0	E	111	Α	Yes	1	.56-1 (b)
Cyclohexylamine	CHA	7	0	D	Ш	Α	Yes	1	.56-1(a), (b), (c), (g)
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	0	D	Ш	Α	Yes	1	.50-60, .56-1(b)
iso-Decyl acrylate	IAI	14	0	Е	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b), .55-1(c)

^{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.



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Official #: 1139043

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Shipyard: West Gulf Marine

Cargo Identification	N 1						Co	onditio	ns of Carriage
				Γ			Vapor R	Recovery	
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction
Dichlorobenzene (all isomers)	DBX	36	0	E	Ш	Α	Yes	3	.56-1(a), (b)
1,1-Dichloroethane	DCH	36	0	С	III	Α	Yes	1	No
2,2'-Dichloroethyl ether	DEE	41	0	D	11	Α	Yes	1	.55-1(f)
Dichloromethane	DCM	1 36	0	NA	111	Α	No	N/A	No
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	DDE	43	0	NA	III	Α	No	N/A	.56-1(a), (b), (c), (g)
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution	DAD	0 1,2	0	NA	III	Α	No	N/A	.56-1(a), (b), (c), (g)
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)	DDA		0		111	Α	No	N/A	.55-1(b)
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	DTI	43 ²	0	NA	111	Α	No	N/A	.56-1(a), (b), (c), (g)
1,1-Dichloropropane	DPB	36	0	С	111	Α	Yes	3	No
1,2-Dichloropropane	DPP	36	0	С	III	Α	Yes	3	No
1,3-Dichloropropane	DPC	36	0	С	111	Α	Yes	3	No
1,3-Dichloropropene	DPU	15	0	D	II	Α	Yes	4	No
Dichloropropene, Dichloropropane mixtures	DMX	15	0	NA	11	Α	Yes	1	No
Diethanolamine	DEA	8	0	E	III	Α	Yes	1	.55-1(c)
Diethylamine	DEN	7	0	С	III	Α	Yes	3	.55-1(c)
Diethylenetriamine	DET	7 ²	0	E	111	A	Yes	1	.55-1(c)
Diisobutylamine	DBU	7	0	D	III	A	Yes	3	.55-1(c)
Diisopropanolamine	DIP	8	0	E	III	A	Yes	1	.55-1(c)
Diisopropylamine	DIA	7	0	С	11	A	Yes	3	.55-1(c)
N,N-Dimethylacetamide	DAC	10	0	E	III	A	Yes	3	.56-1(b)
Dimethylethanolamine	DMB		0	D	III	A	Yes	1	.56-1(b), (c)
Dimethylformamide	DMF	10	0	D	111	A	Yes	1	.55-1(e)
Di-n-propylamine	DNA	7	0	С	- II	A	Yes	3	.55-1(c)
Dode cyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	0	E	III	A	No	N/A	.56-1(b)
Ethanolamine	MEA	8	0	E	111	A	Yes	1	.55-1(c)
Ethyl acrylate	EAC	14	0	С	III	A	Yes	2	.50-70(a), .50-81(a), (b)
Ethylamine solution (72% or less)	EAN	7	0	Α	11	A	No	N/A	.55-1(b)
N-Ethylbutylamine	EBA	7	0	D	III	A	Yes	3	.55-1(b)
N-Ethylcyclohexylamine	ECC	7	0	D	111	Α	Yes	1	.55-1(b)
Ethylene cyanohydrin	ETC	20	0	E	III	Α	Yes	1	No
Ethylenediamine	EDA	7 ²	0	D	111	A	Yes	1	.55-1(c)
Ethylene dichloride	EDC	36 ²	0	С	111	A	Yes	1	No
Ethylene glycol hexyl ether	EGH	40	0	E	111	A	No	N/A	No
Ethylene glycol monoalkyl ethers	EGC		0	D/E	111	Α	Yes	1	No
Ethylene glycol propyl ether	EGP	40	0	E	111	A	Yes	1	No
2-Ethylhexyl acrylate	EAI	14	0	E	III	Α	Yes	2	.50-70(a), .50-81(a), (b)
Ethyl methacrylate	ETM	14	0	D/E		A	Yes	2	.50-70(a)
2-Ethyl-3-propylacrolein	EPA		0	E	III	Α	Yes	1	No
Formaldehyde solution (37% to 50%)	FMS		0	D/E		A	Yes	1	.55-1(h)
Furfural	FFA		0	E	III	A	Yes	1	.55-1(h)
Glutaraldehyde solution (50% or less)	GTA		0	NA NA	III	A	No	N/A	No
Hexamethylenediamine solution	HMC		0	E	III	A	Yes	1	.55-1(c)
Hexamethyleneimine	HMI	7	0		П	A	Yes	1	.56-1(b), (c)
Hydrocarbon 5-9	HFN		0		HI	A	Yes	1	.50-70(a), .50-81(a), (b)
Isoprene	IPR	30	0	A	III	A	No	N/A	.50-70(a), .50-81(a), (b)
Isoprene, Pentadiene mixture	IPN		0		III	A	No	N/A	.50-70(a), .55-1(c)
	100 000								



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Cargo Identification

Cargo Authority Attachment

Vessel Name: KIRBY 30026B

Official #: 1139043

Toluenediamine

Trichloroethylene

Triethanolamine

Triethylamine

Vinyl acetate

Vinyltoluene

1,2,4-Trichlorobenzene

1,1,2-Trichloroethane

1,2,3-Trichloropropane

Triethylenetetramine

Trisodium phosphate solution

Triphenylborane (10% or less), caustic soda solution

Vanillin black liquor (free alkali content, 3% or more).

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

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Conditions of Carriage

Vapor Recovery

Shipyard: West Gulf Marine Hull #: 138

.50-73, .56-1(a), (b), (c), (g)

.50-73, .56-1(a)

.55-1(b)

.55-1(e)

55-1(b)

56-1(a), (b), (c)

.50-73, .56-1(a), (c)

50-73, .56-1(a), (c), (g)

50-70(a), .50-81(a), (b)

50-70(a), .50-81, .56-1(a), (b), (c), (g)

Compat Sub Hull Tank App'd VCS Name Code Group No Grade Туре Group (Y or N) Categor General and Mat'ls of Construction Kraft pulping liquors (free alkali content 3% or more)(including: Black, 5 0 NA Ш .50-73, .56-1(a), (c), (g) Α No N/A Green, or White liquor) Mesityl oxide MSO 18 ² 0 D 111 Yes Methyl acrylate MAM 14 0 С .50-70(a) 50-81(a) (b) 111 Yes Methylcyclopentadiene dimer MCK 30 0 С 111 Methyl diethanolamine MDE 8 0 F 111 56-1(b), (c) 2-Methyl-5-ethylpyridine MEP 9 0 F 111 Methyl methacrylate MMM 14 0 C .50-70(a), .50-81(a), (b) 111 2-Methylpyridine MPR 9 0 111 alpha-Methylstyrene MSR 30 0 ח 111 .50-70(a), .50-81(a), (b) Morpholine MPI 7 2 0 D 111 1- or 2-Nitropropane NPM 42 0 D Ш .50-81 1,3-Pentadiene PDF 30 0 111 No .50-70(a), .50-81 Perchloroethylene PER 36 0 NA 111 No N/A Polyethylene polyamines 7 2 PEB 0 F 111 iso-Propanolamine MPA 8 0 .55-1(c) F 111 Propanolamine (iso-, n-) PAX 8 0 F .56-1(b), (c) 111 iso-Propylamine IPP 7 0 11 Α No .55-1(c) Pyridine PRD 0 9 C 111 .55-1(e) Sodium aluminate solution (45% or less) SAU 0 5 .50-73, .56-1(a), (b), (c) NA 111 No N/A Sodium chlorate solution (50% or less) 0 1,2 0 SDD NA 111 No N/A Sodium hypochlorite solution (20% or less) SHC 0 5 NA 111 No N/A .50-73. .56-1(a) (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less) 0 1,2 SSH 0 .50-73, .55-1(b) NA 111 Yes 0 1,2 Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but less SSI 0 NA 111 Α .50-73, .55-1(b) than 200 ppm) Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm) SSJ 0 1,2 0 NA .50-73, .55-1(b) 11 No N/A Styrene (crude) STX 0 D Ш Α Yes 2 Styrene monomer STY 30 0 .50-70(a), .50-81(a), (b) D 111 Α Yes 1,1,2,2-Tetrachloroethane TEC 36 0 NA 111 Α No N/A .55-1(c) Tetraethylenepentamine TTP 7 0 E 111 Α Yes 50-70(b) Tetrahydrofuran THF 41 0 111 Α Yes

TDA

ТСВ

TCM

TCL

TCN

TEA

TEN

TET

TPB

TSP

UAS

VBL

VAM

9

36

36

36 2

36

8 2

5

5

6

5

13

13

0

0

0

0

0 F

0

0 C

0

0

0

0

0 С

0 D

NA

NA

F

F

NA

NA

NA

NA

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111

111

11

111

11

111

III

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Ш

111

Ш

111

No

Yes

Yes

Yes

Yes

Yes

Yes

Yes

No

No

No

No

Yes

Yes

N/A

3

3

1

N/A

N/A

N/A

N/A

2



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Cargo Authority Attachment

Vessel Name: KIRBY 30026B

Shipyard: West Gulf Marine

Official #: 1139043 Hull #: 138 Page 4 of 8

Cargo Identification							Co	nditio	ns of Carriage
							Vapor R		
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction
Subchapter D Cargoes Authorized for Vapor Control									
Acetone	ACT	18 ²	D	С		Α	Yes	1	
Acetophenone	ACP	18	D	E		Α	Yes	1	
Alcohol(C12-C16) poly(1-6)ethoxylates	APU	20	D	E		A	Yes	1	
Alcohol(C6-C17)(secondary) poly(7-12)ethoxy lates	AEB	20	D	E		A	Yes	1	
Amyl acetate (all isomers)	AEC	34	D	D		A	Yes	1	
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D			A	Yes	1	
Benzyl alcohol	BAL	21	D	E		A	Yes	1	
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters)	BFX	20	D	E		A	Yes	1	
Butyl acetate (all isomers)	BAX	34	D	D		Α	Yes	1	
Butyl alcohol (iso-)	IAL	20 ²	D	D		Α	Yes	1	
Butyl alcohol (n-)	BAN		D	D		Α	Yes	1	8.
Butyl alcohol (sec-)	BAS		D	С		Α	Yes	1	
Butyl alcohol (tert-)	BAT		D	С		Α	Yes	1	
Butyl benzyl phthalate	BPH	34	D	E		A	Yes	1	
Butyl toluene	BUE	32	D	D		Α	Yes	- 1	
Caprolactam solutions	CLS	22	D	E		A	Yes	1	
Cyclohexane	CHX	31	D	C		A	Yes	1	
Cyclohexanol	CHN	20	D	E		Α	Yes	1	
1,3-Cyclopentadiene dimer (molten)	CPD	30	D	D/E		A	Yes	2	
p-Cymene	CMP	32	D	D		Α	Yes	1	
iso-Decaldehyde	IDA	19	D	E		A	Yes	1	
n-Decaldehyde	DAL	19	D	E		A	Yes	1	
Decene	DCE	30	D	D		A	Yes	1	
Decyl alcohol (all isomers)	DAX	20 ²	D	E		Α	Yes	1	
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E		A	Yes	1	
Diacetone alcohol	DAA	20 ²	D	E		A	Yes	1	
ortho-Dibutyl phthalate	DPA	34	D	E		A	Yes	1	
Diethylbenzene	DEB	32				A	Yes	1	
Diethylene glycol	DEG	40 ²		E		A	Yes	1	
Diisobutylene	DBL	30				A	Yes	1	
Diisobutyl ketone	DIK	18		D		A	Yes	1	
Diisopropylbenzene (all isomers)	DIX	32		E		A	Yes	<u> </u>	,
Dimethyl phthalate	DTL	34	D	E		A	Yes	1	
Dioctyl phthalate	DOP	34	D	E		Α	Yes	1	=
Dipentene	DPN	30	D	D		A	Yes	1	
Diphenyl	DIL	32	D	D/E		Α	Yes	1	
Diphenyl, Diphenyl ether mixtures	DDO		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		Α	Yes	1	
Distillates: Straight run	DSR	33	D	E		A	Yes	1	
Dodecene (all isomers)	DOZ	30				A	Yes	1	
Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32		E		A	Yes	1	
2-Ethoxyethyl acetate	EEA	34				A	Yes	1	197
Ethoxy triglycol (crude)	ETG	40		E		A	Yes	1	
,,,							. 00		



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Cargo Authority Attachment

Vessel Name: KIRBY 30026B

Official #: 1139043

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Shipyard: West Gulf Marine

Change C	Cargo Identification						14. 42	Co	nditio	ns of Carriage
Ellys acetate	, , , , , , , , , , , , , , , , , , , ,					-		Vapor R	ecovery	
Ethyl selecthodelate	Name				Grade				VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction
Ethyl acchacelate Ethyl acchacelate Ethyl acchacelate Ethyl acchacelate Ethyl acchacelate Ethyl acchacelate Ethyl acchaelate Ethyl buthol Ethyl containing and ever 4.25 grams lead per gallon) Gasolines: Audinotive (containing not over 4.25 grams lead per gallon) Gasolines: Avidinot (containing not over 4.25 grams lead per gallon) Gasolines: Avidinotive (containing not over 4.25 grams lead per gallon) Gasolines: Avidinotive (containing not over 4.25 grams lead per gallon) Gasolines: Avidinotive (containing not over 4.25 grams lead per gallon) Gasolines: Polymer Gasolines: Polym	Ethyl acetate	ETA	34	D	С		Α	Yes	1	
EMU	Ethyl acetoacetate	EAA	34	D	Е		A	Yes		
Ethyl bulanol	Ethyl alcohol	EAL	20 ²	D	С					
Ethy to the think the th	Ethylbenzene	ETB	32	D	С					
Emyle th-butyle their	Ethyl butanol	EBT	20	D	D					
Ethyl bytyrate EBR 34 D D A Yes 1 Ethyl cyclohexane ECV 31 D D A Yes 1 Ethylane glycol ECV 31 D E A Yes 1 Ethylane glycol diacetate EMA 34 D E A Yes 1 Ethylane glycol pheryl ether EPE 40 D E A Yes 1 Ethylane glycol pheryl ether EPE 40 D E A Yes 1 Ethylane glycol pheryl ether EPE 40 D E A Yes 1 Ethylane glycol pheryl ether EPE 40 D E A Yes 1 Ethylane glycol pheryl ether EPE 40 D E A Yes 1 Ethylane glycol pheryl ether EPE 40 D E A Yes 1 Ethylane glycol pheryl ether	Ethyl tert-butyl ether	EBE	41	D						
Ethylone glycol	Ethyl butyrate	EBR	34	D						
Ethylene glycol EGL 20 2 2 0 0 E A Yes 1 Ethylene glycol butyl ether acetate EMA 34 0 E A Yes 1 Ethylene glycol diacetate EGY 34 0 E A Yes 1 Ethylene glycol phenyl ether EPE 40 0 E A Yes 1 Ethyl-3-ethoxypoptonate EPP 40 0 E A Yes 1 Ethyl-3-ethoxypoptonate EPR 34 0 D C A Yes 1 Ethyl Toluene ETE 32 D E A Yes 1 Ethyl Toluene ETE 32 D E A Yes 1 Furturyl alcohol FAL 20 D E A Yes 1 Furturyl alcohol FAL 20 D E A Yes 1 Gasoline blending stocks: Alkylates GAK 33 D A/C A Yes 1 Gasoline blending stocks: Alkylates GAK 33 D A/C A Yes 1 Gasolines: Automotive (containing not over 4.23 grams lead per gallon) GAF 33 D A/C A Yes 1 Gasolines: Straight cut GAK 33 D A/C A Yes 1	Ethyl cyclohexane	ECY	31							
Ethylene glycol butlyl ether acetate EMA 34 D E A Yes 1 Ethylene glycol phenyl ether EPP 40 D E A Yes 1 Ethylene glycol phenyl ether EPP 40 D E A Yes 1 Ethylene glycol phenyl ether EPR 34 D E A Yes 1 Ethyl propionate EPR 34 D E A Yes 1 Ethyl tolone EPR 34 D E A Yes 1 Formanide FAL 20° D E A Yes 1 Furturyl alcohol FAL 20° D E A Yes 1 Gasolines bendring stocks: Reformates GRR 33 D AC A Yes 1 Gasolines Soline bendring stocks: Reformates GRR 33 D AC A Yes 1 Gasolines Solin	Ethylene glycol	EGL								
Ethylene glycol diacetate EGY 34 D E A Yes 1 Ethylene glycol pheryl ether EPB 40 D E A Yes 1 Ethyl-3-ethoxypropionate EPR 34 D C A Yes 1 Ethyl propionate EPR 34 D C A Yes 1 Ethyl propionate EPR 34 D C A Yes 1 Ethyl propionate EPR 34 D C A Yes 1 Ethyl propionate ERR 34 D C A Yes 1 Formanide FAM 10 D E A Yes 1 Futuryl alcohol GR 33 D ACC A Yes 1 Gasolines Polaring stocks: Alkylates GR GAX 33 D ACC A Yes 1 Gasolines Polaring stocks: Alkylates	Ethylene glycol butyl ether acetate	EMA	34	D						
Ethylene glycol phenyl ether EPE 40 D E A Yes 1 Ethyl-3-ethoxyropolnate EFP 34 D E A Yes 1 Ethyl propionate EFR 34 D E A Yes 1 Ethyl tolene ETE 32 D E A Yes 1 Formanide FAM 10 D E A Yes 1 Furfuryl alcohol FAM 20° D E A Yes 1 Gasoline bending stocks: Reformates GAR 33 D A/C A Yes 1 Gasolines Containing not over 4.23 grams lead per gallon) GAR 33 D A/C A Yes 1 Gasolines: Automotive (containing not over 4.23 grams lead per gallon) GAY 33 D A/C A Yes 1 Gasolines: Schaighead (natural) GCS 33 D A/C A Yes 1 <td>Ethylene glycol diacetate</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Ethylene glycol diacetate									
Ethyl-bethoxypropionate	Ethylene glycol phenyl ether									
Ethyl propionate EPR 34 D C A Yes 1 Ethyl toluene ETE 32 D E A Yes 1 Formamide FAL 20 D E A Yes 1 Furfurly alcohol FAL 20 D E A Yes 1 Gasoline blending stocks: Alkylates GRR 33 D A/C A Yes 1 Gasolines blending stocks: Reformates GRR 33 D A/C A Yes 1 Gasolines Valumotive (containing not over 4.83 grams lead per gallon) GAT 33 D A/C A Yes 1 Gasolines: Solvinghead (natural) GGS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>										
Ethyl toluene	Ethyl propionate									
Formamide										
Furtury alcohol										
Sasoline blending stocks: Alkylates										
Gasoline blending stocks: Reformates										
Gasolines: Automotive (containing not over 4.23 grams lead per gallon) GAT 33 D C A Yes 1										
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) GAV 33 D C A Yes 1 Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptanol (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptanol (all isomers) HTX 30 D C A Yes 1 Heptanol (all isomers) HPX 30 D C A Yes 1 Heptanol (all isomers) HPX 30 D C A Yes 1 <td></td>										
Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptanol (all isomers) HPX 30 D C A Yes 1 Heptanol (all isomers) HPX 30 D C A Yes 1 Heysing (all isomers) HPX 30 D C A Yes 1 Heysing (all is										
Gasolines: Polymer										
Gasolines: Straight run GSR 33 D A/C A Yes 1									1	
Glycerine GCR 20 2 D E A Yes 1										
Heptane (all isomers), see Alkanes (C6-C9) (all isomers)										
Heptanoic acid										
Heptanol (all isomers)										
Heptene (all isomers)										
Heptyl acetate										
Hexane (all isomers), see Alkanes (C6-C9)									2	
Hexanoic acid							A	Yes	1	
Hexanol							A	Yes	1	
Hexene (all isomers)							Α	Yes	1	
Hexylene glycol							Α	Yes	1	
IPH 18 2 D E A Yes 1									2	
Jef fuel: JP-4							Α		1	
Jet fuel: JP-5 (kerosene, heavy) JPV 33 D D A Yes 1							Α	Yes	1	
Kerosene KRS 33 D D A Yes 1 Methyl acetate MIT 34 D D A Yes 1 Methyl alcohol MAL 20 2 D D C A Yes 1 Methylamyl alcohol MAA 20 D D A Yes 1 Methyl tert-butyl ether MBE 41 2 D C A Yes 1 Methyl butyl ketone MBK 18 D C A Yes 1 Methyl butyrate MBU 34 D C A Yes 1 Methyl ethyl ketone MEK 18 2 D C A Yes 1							Α	Yes	1	
Methyl acetate MTT 34 D D A Yes 1 Methyl alcohol MAL 20 ° D C A Yes 1 Methylamyl acetate MAC 34 D D A Yes 1 Methylamyl alcohol MAA 20 D D A Yes 1 Methyl tert-butyl ether MBE 41 ° 2 D C A Yes 1 Methyl butyl ketone MBK 18 D C A Yes 1 Methyl ethyl ketone MEK 18 ° 2 D C A Yes 1							Α	Yes	1	
Methyl alcohol MAL 20 ° D C A Yes 1 Methylamyl acetate MAC 34 D D A Yes 1 Methylamyl alcohol MAA 20 D D A Yes 1 Methyl tert-butyl ether MBE 41 ° D C A Yes 1 Methyl butyl ketone MBK 18 D C A Yes 1 Methyl ethyl ketone MEK 18 ° D C A Yes 1 Methyl ethyl ketone MEK 18 ° D C A Yes 1										
Methylamyl acetate MAC 34 D D A Yes 1 Methylamyl alcohol MAA 20 D D A Yes 1 Methyl tert-butyl ether MBE 41 2 D C A Yes 1 Methyl butyl ketone MBK 18 D C A Yes 1 Methyl butyrate MBU 34 D C A Yes 1 Methyl ethyl ketone MEK 18 2 D C A Yes 1								Yes	1	
Methylamyl alcohol MAA 20 D D A Yes 1 Methyl tert-butyl ether MBE 41 ° D C A Yes 1 Methyl butyl ketone MBK 18 D C A Yes 1 Methyl butyrate MBU 34 D C A Yes 1 Methyl ethyl ketone MEK 18 ° D C A Yes 1								Yes		
Methyl tert-butyl ether MBE 41 ° D C A Yes 1 Methyl butyl ketone MBK 18 D C A Yes 1 Methyl butyrate MBU 34 D C A Yes 1 Methyl ethyl ketone MEK 18 ° D C A Yes 1								Yes	1	
Methyl butyl ketone MBK 18 D C A Yes 1 Methyl butyrate MBU 34 D C A Yes 1 Methyl ethyl ketone MEK 18 2 D C A Yes 1										
Methyl butyrate MBU 34 D C A Yes 1 Methyl ethyl ketone MEK 18 2 D C A Yes 1								Yes	1	
Methyl ethyl ketone MEK 18 ² D C A Yes 1							Α	Yes	1	
							Α	Yes	1	
Methyl heptyl ketone MHK 18 D D A Yes 1							Α	Yes	1	
	Methyl heptyl ketone	MHK	18	D	D		Α	Yes	1	



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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 30026B

Official #: 1139043

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Shipyard: West Gulf Marine

Cargo Identification							Co	nditio	ns of Carriage
							Vapor R	ecovery	
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction
Methyl isobutyl ketone	MIK	18 ²	D	С		Α	Yes	1	
Methyl naphthalene (molten)	MNA	32	D	Е		Α	Yes	1	
Mineral spirits	MNS	33	D	D		Α	Yes	1	
Myrcene	MRE	30	D	D		Α	Yes	1	
Naphtha: Petroleum	PTN	33	D	#		Α	Yes	1	
Naphtha: Solvent	NSV	33	D	D		Α	Yes	1	
Naphtha: Stoddard solvent	NSS	33	D	D		Α	Yes	1	
Naphtha: Varnish makers and painters (75%)	NVM	33	D	С		Α	Yes	1	
Nonane (all isomers), see Alkanes (C6-C9)	NAX	31	D	D	0.00	Α	Yes	1	2.1
Nonene (all isomers)	NON	30	D	D		Α	Yes	2	
Nonyl alcohol (all isomers)	NNS	20 ²	D	E		Α	Yes	1	**************************************
Nonyl phenol	NNP	21	D	E		Α	Yes	1	
Nonyl phenol poly(4+)ethoxylates	NPE	40	D	E		A	Yes	1	
Octane (all isomers), see Alkanes (C6-C9)	OAX	31	D	С		A	Yes	1	
Octanoic acid (all isomers)	OAY	4	D	E		A	Yes	1	·····
Octanol (all isomers)	OCX	20 ²				A	Yes	1	
Octene (all isomers)	OTX	30					Yes	2	
Oil, fuel: No. 2	OTW			D/E		A	Yes	1	
Oil, fuel: No. 4	OFR	33		D/E		A	Yes	1	
Oil, fuel: No. 5	OFV	33	D	D/E		A	Yes	1	
Oil, fuel: No. 6	OSX	33		E		A	Yes	1	
Oil, misc: Crude	OIL	33	D	C/D		A		1	· · · · · · · · · · · · · · · · · · ·
Oil, misc: Diesel	ODS	33	D	D/E			Yes		
Oil, misc: Lubricating	OLB	33	D	E		A	Yes	1	
Oil, misc: Turbine	OTB	33	D	E		A	Yes	1	
alpha-Pinene	PIO	30				A	Yes	1	
beta-Pinene	PIP	30	D				Yes	1	the second secon
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	PAG	40	D	E				1	
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate	PAF	34	D	E		A	Yes		
Polybutene	PLB	30	D	 E		A	Yes	1	
	PGC		D			A	Yes	1	
Polypropylene glycol		40		E		A	Yes	1	
iso-Propyl acetate	IAC	34		C		A	Yes	1	
n-Propyl acetate	PAT	34	D	C		A	Yes	1	
iso-Propyl alcohol	IPA	20 2	D	С		A	Yes	11	
n-Propyl alcohol	PAL	20 2	D	С		Α.	Yes	1	
Propylbenzene (all isomers)	PBY	32	D	D		A	Yes	1	
iso-Propylcyclohexane	IPX	31	D	D		A	Yes	1	
Propylene glycol	PPG	20 2	D	E		A	Yes	1	
Propylene glycol methyl ether acetate	PGN	34	D	D		A	Yes	1	
Propylene tetramer	PTT	30	D	D		Α	Yes	1	w
Sulfolane	SFL	39	D	E		A	Yes	1	
Tetraethylene glycol	TTG	40	D	E		Α	Yes	1	
Tetrahydronaphthalene	THN	32	D	E		A	Yes	1	
Toluene	TOL	32	D	С		Α .	Yes	1	
Tricresyl phosphate (less than 1% of the ortho isomer)	TCP	34	D	E		Α.	Yes	1	
Triethylbenzene	TEB	32	D	E		Α.	Yes	1	
Triethylene glycol	TEG	40	D	E		A	Yes	1	
Triethyl phosphate	TPS	34	D	E		Α	Yes	1	



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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 30026B Official #: 1139043

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Shipyard: West Gulf Marine

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Cargo Iden	tification						Co	nditio	ns of Carriage
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Ro App'd (Y or N)	VCS	Special Requirements in 46 CFR 151 General and Mat'ls of Construction
Trimethylbenzene (all isomers)	TRE	32	D	{D}		А	Yes	1	•
Trixylenyl phosphate	TRP	34	D	E		Α	Yes	1	
Undecene	UDC	30	D	D/E		Α	Yes	1	
1-Undecyl alcohol	UND	20	D	Е		Α	Yes	1	
Xylenes (ortho-, meta-, para-)	XLX	32	D	D		Α	Yes	1	



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

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Vessel Name: KIRBY 30026B

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Shipyard: West Gulf Mari

Hull #: 138

Explanation of terms & symbols used in the Table:

Cargo Identificatio

Name Chem Code The proper shipping name as listed in 46 CFR Table 30.25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2 The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual

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

Compatability Group No

none

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

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

Subchapter D

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

Subchapter O Note 3

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.

Flammable liquid cargoes, as defined in 46 CFR 30-10.22.

A. B. C Note 4

Grade

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.

NA

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).

NA Not applicable to barges certificated under Subchapter D.

Conditions of Carriag

Tank Group

The vessel's tank group (as defined in Section 4) which is authorized for carriage of the named cargo

Vapor Recovery

Approved (Y or N)

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

Conditions of Carriag

Tank Group

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

Vapor Recovery

Approved (Y or N)

Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo 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, Manne 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

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