(22-53	t	)opartment (	itates of A of Homela ates Coas	nd Securit		etification Date piration Date	09 Mar 2020 09 Mar 2025
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Vessel Name	Official	16.2~ (m)	MAG PART	1.40 (1.40)	Carter	less	
KIRBY 28115	1220	962				Tank Ban	<b>p</b>
Haling Port		Hud Material		con af	Propulsion		
WILMINGTON, DE		Steel		işadını me	+ (obriveni		
UNITED STATES							1.
			4	San 19 L	1.1		
Place Built	C C	ižvery Date Kr	el Laid Date	Gross Toria	Net York	740	Leign
ASHLAND CITY, TN	¢.	9Sep2009 0	9Jun2009	N-1632	N-1632 L		R-300 0 1-0
UNITED STATES	-				P		~
		**		. ·			
OWNEY KIRBY INLAND MARINE 55 WAUGH DR STE 100 HOUSTON, TX 77007 UNITED STATES		4 .	183 CH/	BY INLAND	I, TX 77530	•	r
This vessel must be man 0 Certified Lifeboatmen, (	ed with the followi ) Certified Tankem	ng licensed ar nen, 0 HSC T	nd unlicense ype Rating,	ed Personne and 0 GMD	I. Included in SS Operator	which there mu s.	st be
0 Masters	0 Licensed Mates	0 Chief En	-		lilers		
0 Chief Mates 0 Second Mates	0 First Class Pilots 0 Radio Officers		istant Engine Assistant Eng				
0 Second Mates	0 Able Seamen		sistant Engin	10 A.			
0 Master First Class Pilot	0 Ordinary Seamer	0 Licensed	i Engineers		.*		•
0 Mate First Class Pilots	0 Deckhands		Member Eng			<u>_</u>	
In addition, this vessel ma Persons allowed: 0	iy carry 0 Passeng	ers, 0 Other F	ersons in c	rew, 0 Pers	ons in additio	n to crew, and n	o Others. Total
Route Permitted And C	Conditions Of Ope	ration:					±
Lakes, Bays, an							
Also, in fair weather Carrabelle, Florida.		astWise; not	more tha	n tweive (	i2: miles f	roz shore betw	een St. Harks (
This vessel has been g (2). If this vessel is inspected using salt a writing as soon as thi	operated in sal	t water more er 46 CFR 31	> than A m	onths in Au	ny 12 month	period, the V	Basel Sust D#
***SEE NEXT PAGE F				· · · · · · · · · · · · · · · · · · ·			
With this Inspection for C Inspection, Houston-Galv the rules and regulations	eston certified the	vessel, in all r	ed at Freej espects, is	in conformi	ITED STAT ty with the ap	ES, the Officer lipplicable vessel	nspection laws
	Periodic/Re-Inspec			This certific	ate issued b	KI	×/ -
Date Zone		Signatur		E. M.	CARRERO	CDR, USCG, B	Y DIRECTION
1-14-21 New Or		catt Firmil		Officer in Charge	Marine Inspection	14	
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		TOTAL TOTAL ST	tates of America		Certification Date:	09 Mar 2020
82-58			of Homeland Sec ates Coast Guard		Expiration Date:	09 Mar 2025
	Con		_		ion	
and the second	Cer	tífícate	0 1115	peci	1011	
Vessel Name: KIRBY 281	115					
Program (TBSTP)	. Inspection acti	in the Eighth & Nin vities aboard this h sues concerning this	barge shall be co	nducted in a	ccordance with its	s Tank Barge
Hull Exam	S					
Exam Type	Next	Exam	Last Exam		Prior Exam	
DryDock	30Se	p2029	06Feb2020		18Dec2014	
Internal Structure	e 30Se	p2024	23Jan2020		18Dec2014	
Liquid/Ga	s/Solid Cargo	Authority/Condit	ions			
Authorization:	GRADE A AND LO	OWER AND SPECIFIE	D HAZARDOUS C	ARGOES		
Total Capacity	Units	Highest Grade Type	e Part151 Regula	ted Part153	Regulated Part15	4 Regulated
28500	Barrels	А	Yes	No	No	
*Hazardous Bul	k Solids Authority*					
Not Authorized						
*Loading Const	raints - Structural*					
Tank Number		Max Cargo Weight	per Tank (short ton	s) Max	imum Density (lbs/g	al)
1 P/S		838		8.74		
2 P/S		843		8.74	Ļ	
3 P/S		777		8.74	Ļ	
	traints - Stability*					
Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Desc	cription	
11	3804	10ft 0in	13.6	R, LBS		,
			13.6	R, LBS		

#### \*Conditions Of Carriage\*

Only those cargoes named in the vessel's Cargo Authority Attachment (CAA), Serial # C1-0901515, dated May 15, 2009, 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 CFR 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 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 CAA.

The maximum design density of cargo which may be filled to the tank top is 8.74 lbs/gal. Cargoes with higher densities, up to 13.6 lbs/gal, may be carried as slack loads, but shall not exceed the tank weight limits as listed above.

Per 46 CFR 151.10(c)(2), the maximum tank weights listed above reflect uniform (within 5%) loading at the deepest draft allowed. When carrying subchapter "O" cargoes at shallower drafts, the barge should always be loaded uniformly.

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



United States of America Department of Homeland Security United States Coast Guard Certification Date: 09 Mar 2020 Expiration Date: 09 Mar 2025

Certificate of Inspection

Vessel Name: KIRBY 28115

#### \*Vapor Control Authorization\*

In accordance with 46 CFR 39, excluding part 39.4000, this vessel's vapor control system has been inspected to the plans approved by Marine Safety Center letter Serial #C1-0901515, dated May 15, 2009, and has been found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column. The VCS system has been approved with a pressure side of 6 psig P/V valve with Coast Guard Approval 162.017/167/2. The cargo tank top is suitable for a maximum allowable working pressure (MAWP) of 6.5 psig.

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

#### \*Cargo Tanks\*

	Internal Exam			External Exam	l.	
Tank Id	Previous	Last	Next	Previous	Last	Next
1 P/S	18Dec2014	23Jan2020	23Jan2030	-	-	-
2 P/S	18Dec2014	23Jan2020	23Jan2030		-	-
3 P/S	18Dec2014	23Jan2020	23Jan2030	-	-	-
			Hydro Test			
Tank Id	Safety Valves		Previous	Last	Next	
1 P/S	-		-	-	-	
2 P/S	-		-	-	-	
3 P/S	-		-	-	-	

#### ---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 #: C1-0901515 Dated: 15-May-09

### Certificate of Inspection Cargo Authority Attachment

### Vessel Name: KIRBY 28115 Official #: 1220962

Shipyard: TRINITY ASHLAND CITY

Hull #: 4658

Tank Group Information	Cargo I	dentificati	on		Cargo		Tanks		Carg Trans		Environ Control		Fire	Special Require	ments		
Tnk Grp Tanks in Group	Density	Press.	Temp.	Hull Typ	Seg	Туре	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec Haz	Tem Cont
A #1P/S, #2P/S, #3P/S	13.6	Atmos.	Amb.	11	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-	55-1(b), (c), (e), (f), (h), (j), 56-1(a), (b), (c), (d), (e), (f), (g),	NR	No

Notes: 1. Under Environmental Control, Tanks, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo tanks. 2. Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.

3. Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.

#### List of Authorized Cargoes

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



Serial #: C1-0901515 Dated: 15-May-09

## Certificate of Inspection Cargo Authority Attachment

Vessel Name: KIRBY 28115 Official #: 1220962

Page 2 of 8

Shipyard: TRINITY ASHLAND CITY Hull #: 4658

Cargo Identification	1						(	Condi	tions of Carriage	
							Vapor Re		lione er eurrage	-
Name iso-Decyl acrylate	Chem Code IAI	Compat Group No 14	Sub Chapter O	Grade	Hull Type III	Tank Group A	App'd	VCS Category 2	Special Requirements in 46 CFR 151 General and Mat'ls of .50-70(a), .50-81(a), (b), .55-1(c)	Insp. Period G
Dichlorobenzene (all isomers)	DBX	36	0	E	III	A	Yes	3	.56-1(a), (b)	G
1,1-Dichloroethane	DCH	36	0	C		A	Yes	1	No	G
2,2'-Dichloroethyl ether	DEE	41	0	D	11	A	Yes	1	.55-1(f)	G
Dichloromethane	DCM		0	NA	111	A	Yes	5	No	G
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	DDE	43	0	E	111	A	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution	DAD	0 1.2		A	111	A	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	DTI	43 2	0	E	111	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	111	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		0	C		A	Yes	1	No	G
Diethanolamine	DEA	8	0	E		A	Yes	1	.55-1(c)	G
Diethylamine	DEN	7	0	C	111	A	Yes	3	.55-1(c)	G
Diethylenetriamine	DET	72	0	E			Yes	1	.55-1(c)	G
Disobutylamine	DBU	7	0	D		A		3	.55-1(c)	G
	DIP	8	0	E	111	A	Yes		.55-1(c)	G
Diisopropanolamine	DIA	7	0		111	A		1	.55-1(c)	G
Diisopropylamine				C	11	A	Yes	3	.56-1(b)	G
N,N-Dimethylacetamide	DAC	10	0	E	111	A	Yes	3		
Dimethylethanolamine	DMB	8	0	D		A	Yes	1	.56-1(b), (c)	G
Dimethylformamide	DMF	10	0	D		A	Yes	1	.55-1(e)	G
Di-n-propylamine	DNA	7	0	C		A	Yes	3	.55-1(c)	G
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	0	E		A	No	N/A	.56-1(b)	G
Dodecyl diphenyl ether disulfonate solution	DOS	43	0	#		A	No	N/A	No	G
EE Glycol Ether Mixture	EEG	40	0	D		A	No	N/A	No	G
Ethanolamine	MEA	8	0	E	III	A	Yes	1	.55-1(c)	G
Ethyl acrylate	EAC	14	0	С	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethylamine solution (72% or less)	EAN	7	0	A		A	Yes	6	.55-1(b)	G
N-Ethylbutylamine	EBA	7	0	D	III	A	Yes	3	.55-1(b)	G
N-Ethylcyclohexylamine	ECC	7	0	D	III	A	Yes	1	.55-1(b)	G
Ethylene cyanohydrin	ETC	20	0	E		A	Yes	1	No	G
Ethylenediamine	EDA	7 2	0	D	111	A	Yes	1	.55-1(c)	G
Ethylene dichloride	EDC	36 2	0	С	III	A	Yes	1	No	G
Ethylene glycol hexyl ether	EGH	40	0	E	111	A	No	N/A	No	G
Ethylene glycol monoalkyl ethers	EGC	40	0	D/E	III	A	Yes	1	No	G
Ethylene glycol propyl ether	EGP	40	0	E	111	A	Yes	1	No	G
2-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	111	A	Yes	2	.50-70(a)	G
2-Ethyl-3-propylacrolein	EPA	19 <sup>2</sup>	0	E	III	Α	Yes	1	No	G
Formaldehyde solution (37% to 50%)	FMS	19 <sup>2</sup>	0	D/E	111	А	Yes	1	.55-1(h)	G
Furfural	FFA	19	0	D	III	А	Yes	1	.55-1(h)	G
Glutaraldehyde solution (50% or less)	GTA	19	0	NA	111	А	No	N/A	No	G
Hexamethylenediamine solution	HMC	7	0	E	III	А	Yes	1	.55-1(c)	G
Hexamethyleneimine	HMI	7	0	С	Ш	А	Yes	1	.56-1(b), (c)	G
Hydrocarbon 5-9	HFN		0	С	III	А	Yes	1	.50-70(a), .50-81(a), (b)	G
Isoprene	IPR	30	0	Α	III	А	Yes	7	.50-70(a), .50-81(a), (b)	G
Isoprene, Pentadiene mixture	IPN	19 A.	0	В	III	А	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	III	A	No	N/A	.50-73, .56-1(a), (c), (g)	G
Mesityl oxide	MSO	18 <sup>2</sup>	0	D	111	A	Yes	1	No	G



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Serial #: C1-0901515 Dated: 15-May-09

Shipyard: TRINITY ASHLAND CITY

Hull #: 4658

### **Certificate of Inspection Cargo** Authority Attachment

Vessel Name: KIRBY 28115

Official #: 1220962

Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates

**Cargo Identification Conditions of Carriage** Vapor Recovery Chem Compat Sub Hull Tank VCS Special Requirements in 46 CFR App'd Insp Name Group No 14 (Y or N) Yes Code Grade Category Chapter Group Type 151 General and Mat'ls of .50-70(a), .50-81(a), (b) Pari Methyl acrylate MAM 0 C III A 2 Methylcyclopentadiene dimer MCK 30 0 С Ш A G Yes No 1 Methyl diethanolamine MDE 8 0 Е Ш .56-1(b), (c) A Yes 1 G 2-Methyl-5-ethylpyridine MEP 9 0 Е III .55-1(e) A G Yes 1 Methyl methacrylate MMM 14 0 С Ш .50-70(a), .50-81(a), (b) G A Yes 2 2-Methylpyridine MPR 9 0 D 111 A .55-1(c) G 3 Yes alpha-Methylstyrene MSR 30 0 .50-70(a), .50-81(a), (b) G D III A Yes 2 Morpholine MPL 72 0 .55-1(c) G D III A Yes 1 1- or 2-Nitropropane NPM 42 0 D 50-81 G 111 A Yes 1 1.3-Pentadiene PDE 30 0 .50-70(a), .50-81 G A III A Yes 7 Perchloroethylene PER 36 0 NA III A No N/A No G 7 2 .55-1(e) G Polyethylene polyamines PEB 0 E III A Yes 1 .55-1(c) G MPA 0 iso-Propanolamine 8 E III A 1 Yes G Propanolamine (iso-, n-) PAX 8 0 E Ш .56-1(b), (c) A Yes 1 G iso-Propylamine IPP 7 0 A 11 A 5 .55-1(c) Yes Pyridine 9 .55-1(e) G PRD 0 С III A Yes 1 Sodium acetate, Glycol, Water mixture (3% or more Sodium 0 Ш .50-73, .55-1(i) G SAP A No N/A Hydroxide) .50-73, .56-1(a), (b), (c) G Sodium aluminate solution (45% or less) SAU 5 0 NA 111 N/A No A G Sodium chlorate solution (50% or less) SDD 0 1.2 0 NA Ш N/A .50-73 A No .50-73, .56-1(a), (b) G 0 Ш Sodium hypochlorite solution (20% or less) SHQ 5 NA A No N/A 50-73, .55-1(b) G SSH 0 1,2 0 111 Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less) NA A Yes 1 0 1,2 .50-73. .55-1(b) G Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but SSI 0 NA 111 N/A A No less than 200 ppm) 0 1,2 .50-73, .55-1(b) G Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm) SSJ 0 NA 11 A No N/A STX 0 D 111 A Yes 2 No G Styrene (crude) .50-70(a), .50-81(a), (b) G Styrene monomer STY 30 0 D III A Yes 2 G TEC 0 Ш N/A No 36 NA A No 1,1,2,2-Tetrachloroethane G .55-1(c) TTP 7 0 Е III Yes Tetraethylenepentamine A 1 G .50-70(b) THF 41 0 С III Yes 1 Tetrahydrofuran A G .50-73, .56-1(a), (b), (c), (g) TDA 9 0 Е 11 A No N/A Toluenediamine G No TCB 36 0 E III A Yes 1 1,2,4-Trichlorobenzene 50-73, .56-1(a) G TCM 36 0 NA 111 A Yes 1 1,1,2-Trichloroethane No G 36 2 0 NA Ш TCL A Yes 1 Trichloroethylene 50-73, .56-1(a) G TCN 36 0 E 11 A Yes 3 1,2,3-Trichloropropane G 55-1(b) 0 111 1 Triethanolamine TEA 82 E A Yes .55-1(e) G 3 TEN 0 Ш 7 С A Yes Triethylamine G 7 2 0 ш 1 55-1(b) F Yes TET A Triethylenetetramine G .56-1(a), (b), (c) TPB 5 0 NA 111 A No N/A Triphenylborane (10% or less), caustic soda solution G .50-73. .56-1(a). (c) 0 111 N/A TSP 5 NA A No Trisodium phosphate solution G 56-1(b) NA 111 N/A UAS 6 0 A No Urea, Ammonium nitrate solution (containing more than 2% NH3) G .50-73, .56-1(a), (c), (g) NA III N/A VBL 5 0 A No Vanillin black liquor (free alkali content, 3% or more) G 0 С Ш A Yes 2 .50-70(a), .50-81(a), (b) VAM 13 Vinvl acetate G .50-70(a), .50-81(a), (b) N/A VND 13 0 Е 111 A No Vinyl neodecanate .50-70(a), .50-81, .56-1(a), (b), (c), ( G 2 VNT 13 0 D 111 A Yes Vinyltoluene Subchapter D Cargoes Authorized for Vapor Control 18 2 D С A Yes 1 ACT Acetone ACP 18 D Е A Yes 1 Acetophenone E A Yes APU 20 D 1 Alcohol(C12-C16) poly(1-6)ethoxylates AEB 20 D E A Yes 1



Serial #: C1-0901515 Dated: 15-May-09

## Certificate of Inspection Cargo Authority Attachment

Vessel Name: KIRBY 28115 Official #: 1220962

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Shipyard: TRINITY ASHLAND CITY Hull #: 4658

Cargo Identification	-							Condi	tions of Comission	
Cargo identification	1 11 11 11	-		-					tions of Carriage	
Name Amyl acetate (all isomers)	Chem Code AEC	Compat Group No 34	Sub Chapter D	Grade D	Hull Tvoe	Tank Group A	Vapor F App'd (Y or N) Yes	Recovery VCS Category 1	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D		A	Yes	1	and the second second second	1.1.1
Benzyl alcohol	BAL	21	D	E	100	A	Yes	1	Construction of the second second	
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		A	Yes	1		
Butyl alcohol (iso-)	IAL	20 2	D	D	1	A	Yes	1		
Butyl alcohol (n-)	BAN	20 2	D	D		A	Yes	1	States and the states of	1.18
Butyl alcohol (sec-)	BAS	20 2	D	С		A	Yes	1		1000
Butyl alcohol (tert-)	BAT		D	С		A	Yes	1		
Butyl benzyl phthalate	BPH	34	D	E	1.1	A	Yes	1		P
Butyl toluene	BUE	32	D	D		A	Yes	1		-
Caprolactam solutions	CLS	22	D	E	22.55	A	Yes	1	and the second	
Cyclohexane	CHX	31	D	C		A	Yes	1		1
Cyclohexanol	CHN	20	D	E	1000	A	Yes	1		
1,3-Cyclopentadiene dimer (molten)	CPD	30	D	D/E		A	Yes	2		
p-Cymene	CMP	32	D	D		A	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		A	Yes	1	the second s	
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E	-			1		
Diacetone alcohol	DAA	20 2	D	D		A	Yes			
ortho-Dibutyl phthalate	DPA	34	D			A	Yes	1		
Diethylbenzene	DEB		D	E	-	A	Yes	1		
Diethylene glycol	DEG	32 40 <sup>2</sup>	D	DE		A	Yes	1		
Disobutylene	DBL					A	Yes	1		
	the second second	30	D	C	-	A	Yes	1		
Diisobutyl ketone	DIK	18	D	D	-	A	Yes	1		
Diisopropylbenzene (all isomers)	DIX	32	D	E		A	Yes	1		
Dimethyl phthalate	DTL	34	D	E	-	A	Yes	1		
Dioctyl phthalate	DOP	34	D	E	1.49	A	Yes	1		
Dipentene	DPN	30	D	D		A	Yes	1		- Charles
Diphenyl	DIL	32	D	D/E		A	Yes	1	a the state of the second	
Diphenyl, Diphenyl ether mixtures	DDO	33	D	E	1000	A	Yes	1		
Diphenyl ether	DPE	41	D	{E}		A	Yes	1		
Dipropylene glycol	DPG	40	D	E		A	Yes	1		
Distillates: Flashed feed stocks	DFF	33	D	E	200	A	Yes	1		12220
Distillates: Straight run	DSR	33	D	E		A	Yes	1		
Dodecene (all isomers)	DOZ	30	D	D		А	Yes	1	and the second second	
Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32	D	E		А	Yes	1		
2-Ethoxyethyl acetate	EEA	34	D	D		А	Yes	1		2.502
Ethoxy triglycol (crude)	ETG	40	D	E	100.00	А	Yes	1	C. March 19 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	
Ethyl acetate	ETA	34	D	С		А	Yes	1	State of the state	
Ethyl acetoacetate	EAA	34	D	E	1.00	А	Yes	1	S. R. P. Street Market	
Ethyl alcohol	EAL	20 2	D	С		А	Yes	1	Sector Anna Parts	
Ethylbenzene	ETB	32	D	С	103.5	А	Yes	1	CONTRACTOR OF THE	
Ethyl butanol	EBT	20	D	D		А	Yes	1	The state of the state	
Ethyl tert-butyl ether	EBE	41	D	С		А	Yes	1	and the second second	
Ethyl butyrate	EBR	34	D	D		A	Yes	1	WE AN IS NOT TO	Des St
Ethyl cyclohexane	ECY	31	D	D	1	A	Yes	1	CONTRACTOR OF THE OWNER	
	201	01	0	0		A	res			



Serial #: C1-0901515 Dated: 15-May-09

### Certificate of Inspection Cargo Authority Attachment

Vessel Name: KIRBY 28115 Official #: 1220962

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								0 "	"	
Cargo Identification				_			-		tions of Carriage	
Name Ethylene glycol	Chem Code EGL	Compat Group No 20 <sup>2</sup>	Sub Chapter D	Grade	Hull Type	Tank Group A	Vapor F App'd (Y or N) Yes	Recovery VCS Category 1	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
	EMA		D	E			Yes	1		
Ethylene glycol butyl ether acetate	EGY	34	D	E	-	A	Yes	1		
Ethylene glycol diacetate	EPE	40	D	E		A	Yes	1		
Ethylene glycol phenyl ether	EEP	34	D	D		A	Yes	1		
Ethyl-3-ethoxypropionate	EHX	20	D	E	-	A	Yes	1		
2-Ethylhexanol	EPR			C	1000			1		
Ethyl propionate		34	D	D		A	Yes		the second s	
Ethyl toluene	ETE FAM	32	D	E		A	Yes	1		1000
Formamide	Contractions.	10 20 <sup>2</sup>	D			A	Yes	1		
Furfuryl alcohol	FAL		D	E		A	Yes	1		
Gasoline blending stocks: Alkylates	GAK	33	D	A/C	_	A	Yes	1		
Gasoline blending stocks: Reformates	GRF	33	D	A/C	_	A	Yes	1		-
Gasolines: Automotive (containing not over 4.23 grams lead per gallon)	GAT	33	D	С		A	Yes	1		
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	GAV	33	D	С		A	Yes	1	A DESCRIPTION OF THE	
Gasolines: Casinghead (natural)	GCS	33	D	A/C	15.23	A	Yes	1		200
Gasolines: Polymer	GPL	33	D	A/C		A	Yes	1		
Gasolines: Straight run	GSR	33	D	A/C	1.11	A	Yes	1		Margaret M
Glycerine	GCR	20 2	D	E		Α	Yes	1		
Heptane (all isomers), see Alkanes (C6-C9) (all isomers)	HMX	31	D	С		Α	Yes	1		
Heptanoic acid	HEP	4	D	E		A	Yes	1		
Heptanol (all isomers)	HTX	20	D	D/E		А	Yes	1		
Heptene (all isomers)	HPX	30	D	С		А	Yes	2		
Heptyl acetate	HPE	34	D	E		А	Yes	1		
Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 2	D	B/C		А	Yes	1	Mill Multiplay Service	
Hexanoic acid	HXO	4	D	E		А	Yes	1		
Hexanol	HXN	20	D	D		А	Yes	1		1944
Hexene (all isomers)	HEX	30	D	С		А	Yes	2		
Hexylene glycol	HXG	20	D	E		A	Yes	1		
Isophorone	IPH	18 2	D	Е		А	Yes	1		
Jet fuel: JP-4	JPF	33	D	E		A	Yes	1		
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		А	Yes	1		
Kerosene	KRS	33	D	D	2.7	A	Yes	1		Sec. 211
Methyl acetate	MTT	34	D	D		A	Yes	1		
Methyl alcohol	MAL	20 2	D	С		A	Yes	1	IN THE PARTY OF THE PARTY OF THE	
Methylamyl acetate	MAC	34	D	D	14.56	A	Yes	1	A STATE OF THE STA	12.00
Methylamyl alcohol	MAA	20	D	D	-	A	Yes	1	Contraction of the second second	
Methyl amyl ketone	MAK	18	D	D		A	Yes	1	NAME OF TAXABLE PARTY.	1000
Methyl tert-butyl ether	MBE	41 2	D	С		A	Yes	1		
Methyl butyl ketone	MBK	18	D	C	1	A	Yes	1		
Methyl butyrate	MBU	34	D	C		A	Yes	1		
Methyl ethyl ketone	MEK	18 2	D	C		A	Yes	1		193.5
Methyl heptyl ketone	MHK	18	D	D		A	Yes	1		1.0
Methyl isobutyl ketone	MIK	18 2	D	C		A	Yes	1		
Methyl naphthalene (molten)	MNA	32	D	E	10.00	A	Yes	1		
Mineral spirits	MNS	33	D	D	-	A	Yes	1		
Myrcene	MRE	30	D	D	-	A	Yes	1		
	NAG	33	D	#		A		1		
Naphtha: Heavy		1000					Yes			-
Naphtha: Petroleum	PTN NSV	33	D	# D	-	A	Yes	1		
Naphtha: Solvent	NOV	33	U	0	-	A	Yes	1		



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Serial #: C1-0901515 Dated: 15-May-09

### Certificate of Inspection Cargo Authority Attachment

Vessel Name: KIRBY 28115 Official #: 1220962 Shipyard: TRINITY ASHLAND CITY Hull #: 4658

			age o	0/0			-		Hull #: 4658	
Cargo Identification	1			- 194			1	Condi	tions of Carriage	
CONTRACTOR OF AN AND A CONTRACTOR		Contraction -					Vapor I	Recovery		
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	VCS	Special Requirements in 46 CFR	Insp.
Naphtha: Stoddard solvent	NSS	33	D	D	TVDe I	A	(Y or N) Yes	Latedorv 1	151 General and Mat'ls of	Period
Naphtha: Varnish makers and painters (75%)	NVM	33	D	С		A	Yes	1	and a state of the state of the	
Nonane (all isomers), see Alkanes (C6-C9)	NAX	31	D	D		A	Yes	1		
Nonene (all isomers)	NON	30	D	D		A	Yes	2		1000
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	С		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	С		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. 5	OFV	33	D	D/E	-	A	Yes	1		
Oil, fuel: No. 6	OSX	33	D	E		A	Yes	1		
Oil, misc: Crude	OIL	33	D	C/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		
Pentane (all isomers)	PTY	31	D	A	-					
Pentene (all isomers)	PTX	30	D	A	-	A	Yes Yes	5		
alpha-Pinene	PIO	30	D	D		A		1		
beta-Pinene	PIP						Yes			
	PAG	30 40	D	DE		A	Yes	1		
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	PAG	34	D			A	Yes	1		
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate Polybutene	PAP			E		A	Yes	1		
	PGC	30	D			A	Yes	1		
Polypropylene glycol		40	D	E		A	Yes	1		
iso-Propyl acetate	IAC	34	D	C	-	A	Yes	1		
n-Propyl acetate	PAT	34	D	C		A	Yes	1		
iso-Propyl alcohol	IPA	20 2	D	C		A	Yes	1		
n-Propyl alcohol	PAL	20 2	D	C		A	Yes	1		
Propylbenzene (all isomers)	PBY	32	D	D		A	Yes	1		00.6
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	1	A	Yes	1		
Sulfolane	SFL	39	D	E		A	Yes	1		
Tetraethylene glycol	TTG	40	D	E		A	Yes	1		
Tetrahydronaphthalene	THN	32	D	E	-	A	Yes	1		
Toluene	TOL	32	D	С		A	Yes	1		
Tricresyl phosphate (less than 1% of the ortho isomer)	TCP	34	D	E		A	Yes	1		10.
Triethylbenzene	TEB	32	D	E		Α	Yes	1	ALL AND AND A	
Triethylene glycol	TEG	40	D	E		A	Yes	1	and share the second second	
Triethyl phosphate	TPS	34	D	E		Α	Yes	1		
Trimethylbenzene (all isomers)	TRE	32	D	{D}		Α	Yes	1		
Trixylenyl phosphate	TRP	34	D	E		А	Yes	1		
Undecene	UDC	30	D	D/E		А	Yes	1		1200



Serial #: C1-0901515 Dated: 15-May-09

# **Certificate of Inspection** Cargo Authority Attachment

Vessel Name: KIRBY 28115 Official #: 1220962

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Shipyard: TRINITY ASHLAND CITY Hull #: 4658

Са	rgo Identification			1				Condi	tions of Carriage	
1-Undecyl alcohol Name	Chem Code UND	Compat Group No 20	Sub Chapter D	Grade E	Hull Type	Tank Group A	Annia	Recovery VCS Category 1	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Perior
Xylenes (ortho-, meta-, para-)	XLX	32	D	D		A	Yes	1	The second second second second	



Serial #: C1-0901515 Dated: 15-May-09

### Certificate of Inspection Cargo Authority Attachment

Vessel Name: KIRBY 28115 Official #: 1220962

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Shipyard: TRINITY ASHL Hull #: 4658

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

Cargo Identification Name	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 none	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.
Note 1	Because of the very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone
Note 2	(202) 372-1425. See Appendix I to 46 CFR Part 150 - exceptions to the compatability chart.
Subchapter Subchapter D	The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified.
Subchapter O	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.
Note 3	Those cargoes listed in 46 CFR Part 153 Table 2 are non-regulated cargoes when carried in bulk on non-oceangoing barges.
Grade	The cargo classification assigned to each flammable or combustible liquid. Grades inside of "{ }" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.
A, B, C	Flammable liquid cargoes, as defined in 46 CFR 30-10.22.
D, E 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
	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).
III	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 Carriage	
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 Carriage	
Conditions of Carriage Tank Group	
Tank Group Vapor Recovery	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.
Tank Group	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.
Tank Group Vapor Recovery Approved (Y or N) VCS Category:	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The specified cargo's provisional classification for vapor control systems.
Tank Group Vapor Recovery Approved (Y or N)	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.
Tank Group Vapor Recovery Approved (Y or N) VCS Category:	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and 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. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The specified cargo's provisional classification for vapor control systems. (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank ventuing system calculations (46 CFR 39.20-1(1))
Tank Group Vapor Recovery Approved (Y or N) VCS Category: Category 1	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: 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. No: The vessel's VCS has been reviewed and is not 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. No: The vessel's VCS has been reviewed and is not 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. No: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. The specified cargo's provisional classification for vapor control systems. (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Cofe R 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. (Polymerizas) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety components and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuing all VCS safety components are functional and polymer build-up is not
Tank Group Vapor Recovery Approved (Y or N) VCS Category: Category 1 Category 2	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and 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. No: The vessel's VCS has been reviewed and is not 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. No: The vessel's VCS has been reviewed and is not 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. No: 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 approved by the MSC to control vapors of the specified cargo. No: 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 approved by the MSC to control vapors of the specified cargo. No: 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 approved by the MSC to control vapors of the specified cargo. No: 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 approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and to the reviewed and to the specifical to the local to the proved to the specifical to the local to the prove to the vapor appro
Tank Group Vapor Recovery Approved (Y or N) VCS Category: Category 1 Category 2 Category 3	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and 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. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The specified cargo's provisional classification for vapor control systems. (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR 39 apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.20-11) and the pressure drop calculations (46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates. (Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety components and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuing 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 t
Tank Group Vapor Recovery Approved (Y or N) VCS Category: Category 1 Category 2 Category 3 Category 4	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not 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. No: The vessel's VCS has been reviewed and is not 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. No: The vessel's VCS has been reviewed and sport outport systems. (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Faderal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 156.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates. (Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety 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 Chargo, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester. (Highly toxic) VCSs for these toxic cargoes cannot use a spill va
Tank Group Vapor Recovery Approved (Y or N) VCS Category: Category 1 Category 2 Category 3 Category 4 Category 5	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not 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. No: The vessel's 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 156.170, 46 CFR 35.35 and 46 CFR 39.30 - 110 and the pressure drop calculations (46 CFR 39.30 - 110) must use appropriate friction factors, vapor densities and vapor growth rates. (Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety components 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 enthod shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester. (Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 3
Tank Group Vapor Recovery Approved (Y or N) VCS Category Category 1 Category 2 Category 3 Category 4 Category 5 Category 6	No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified_cargo. The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified_cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not 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. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and porton of vapor control systems. (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 155.750, 33 CFR 156.170, 46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates. (Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety 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 Inspecifient. 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. (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 mkture densities and v