for the cargo piping system. These requirements are defined in § 151.20–5.

(l) *Environmental control/cargo tanks.* This column refers to control of the composition of the environment within cargo tanks. Definitions and detailed requirements are given in § 151.25–1.

(m) *Environmental control/cargo handling space.* This column refers to control of the environment in the cargo handling spaces. Definitions and detailed requirements are found in § 151.25–2.

(n) *Fire protection.* This column specifies whether portable fire extinguishers are required on barges carrying the cargo named. Requirements for cargoes requiring extinguishers are given in Subpart 151.30 of this part.

(o) *Special requirements.* This column refers to requirements in subparts 151.40, 151.50, 151.55, 151.56, and 151.58 of this part which apply to specific cargoes. The section numbers listed omit the preceding part designation, ''151''.

(p) *Electrical hazard class—group.* This column lists the electrical hazard class and group used for the cargo when determining requirements for electrical equipment under subchapter J (Electrical engineering) of this chapter.

(q) *Temperature control installations.* This column refers to systems which are used to control the temperature of the cargo. Definitions and requirements which are applicable if such systems are used are given in Subpart 151.40 of this part.

(r) *Tank inspection period.* This column refers to the maximum period in years between internal cargo tank inspections. Applicable requirements are given in § 151.04–5.

[CGFR 70–10, 35 FR 3714, Feb. 25, 1970; 35 FR 6431, Apr. 22, 1970, as amended by CGD 74–275, 40 FR 21958, May 20, 1975; CGD 88–100, 54 FR 40029, Sept. 29, 19895; CGD 96–041, 61 FR 50731, Sept. 27, 1996]

§ 151.05–2 Compliance with requirements for tank barges carrying benzene and benzene containing cargoes, or butyl acrylate cargoes.

A tank barge certificated to carry benzene and benzene containing cargoes or butyl acrylate cargoes must comply with the gauging requirement of Table 151.05 of this part by August 15, 1998. Until that date, a tank barge certificated to carry benzene and benzene containing cargoes must meet either the gauging requirement of Table 151.05 or the restricted or closed gauging requirements in effect on September 29, 1994; and a tank barge certificated to carry butyl acrylate cargoes must meet either the gauging requirements of Table 151.05 or comply with the open, restricted, or closed gauging requirements in effect on September 29, 1994.

[CGD 95–900, 60 FR 34050, June 29, 1995]

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
Acetaldehyde	Press.	Amb.	II	1NA 2ii	Ind. Pressure.	SR	Restr.	II	P-1	Inerted	Vent F	Yes	.55-1(h)	I-C	NA	G
•Acetic acid	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	**.50-73** .. .55-1(g)	I-D	NA	G
•Acetic anhydride	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	**.50-73** .. .55-1(g)	I-D	NA	G
Acetone cyanohydrin	Atmos.	Amb.	I	1ii 2i	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5 .... **.50-70(b)**. .50-73 .. .50-81 ..	**I-D**	NA	G
Acetonitrile	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Acrylic acid	Atmos	Amb	III	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-73 .. .50-81 .. .58-1(a)	I-D	NA	G
Acrylonitrile	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Closed	II	G-1	NR	Vent F	Yes	.55-1(e) .50-70(a).	I-D	NA	G
Adiponitrile	Atmos.	Amb.	II	1ii 2i	Integral Gravity.	PV	Open	II	G-1	NR	Vent F	Yes	No	**I-D**	NA	G
Alkyl(C7–C9) nitrates	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	Open	Open	II	G–1	NR	Vent N	Yes	.50–81 .50–86	NA	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
Allyl alcohol	Atmos.	Amb.	I	1ii 2ii	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5 .... .50-73 ..	I-C	NA	G
Allyl chloride	Atmos.	Amb.	I	1ii 2ii	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5	I-D	NA	G
Aluminum sulfate solution.	Atmos	Amb	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.58-1(e)	NA	NA	G
Aminoethyl ethanol amine.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(b)	NA	NA	G
Ammonia, anhydrous	Press.	Amb.	II	1NA 2ii	Ind. Pressure.	SR 250 p.s.i.	Restr.	II	P-2	NR	Vent F	No	.50-30 .. .50-32 ..	I-D	NA	G
Ammonia, anhydrous	Atmos.	Low	II	1NA 2ii	Ind. Gravity.	PV	Restr.	II-L	G-2	NR	Vent F	No	.50-30 .. .50-32 ..	I-D	.40-1(b)(1)	8
Ammonium bisulfite solution (70% or less).	Atmos	Amb	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	.50-73 .. .56-1(a), (b), (c).	NA	NA	G
Ammonium hydroxide (28% or less NH_3).	Atmos.	Amb.	III	1i 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	No	.56-1(a), (b), (c), (f), (g).	I-D	NA	G

Aniline	Atmos.	Amb.	I	1ii 2ii	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5, .50-73.	**I-D**	NA	G
Anthracene oil (Coal tar fraction).	Atmos.	Amb. Elev.	II	1ii 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	No	I-D	NA	G
Argon, *liquefied*	Press.	Low	III	1NA 2i	Ind. Pressure.	SR	Restr.	II-L	P-1	NR	Vent F	No	.40-1(a) .50-30 .. .50-36.	NA	.40-1(a)	G
Benzene	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	**Closed**	II	G-1	NR	Vent F	Yes	.50-60 ..	I-D	NA	G
Benzene hydrocarbon mixtures (containing Acetylenes) *(having 10% Benzene or more).*	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	**Closed**	II	G-1	NR	Vent F	Yes	.56-1(b), (d), (f), (g),.	I-D	NA	G
Benzene hydrocarbon mixtures *(having 10% Benzene or more).*	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	**Closed**	II	G-1	NR	Vent F	Yes	.....	I-D	NA	G
Benzene, Toluene, Xylene mixtures *(having* **10%** *Benzene or more).*	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	**Closed**	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Butadiene	Press.	Amb.	II	1NA 2ii	Ind. Pressure.	SR	Restr.	II	P-2	NR	Vent F	Yes	.50-70(a), .50-73.	I-B	NA	G
Butadiene, Butylene mixtures *(containing Acetylenes).*	Press.	Amb.	II	1NA 2ii	Ind. Pressure.	SR	Restr.	II	P-1	NR	Vent F	Yes	.50-30 .. .50-70(a), .50-73. .56-1(b), (d), (f), (g).	I-B	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
iso-Butyl acrylate, *see* **Butyl acrylate, (all isomers)**.																
n-Butyl acrylate, *see* **Butyl acrylate, (all isomers)**.																
Butyl acrylate (all isomers).	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	**Restr**	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Butylamine (all isomers).	Atmos.	Amb.	II	1ii 2ii	Ind. Gravity.	PV	Closed	II	G-1	NR	Vent F	Yes	.55-1(c)	I-D	NA	G
•iso-Butyraldehyde, *see* **Butyraldehyde (all isomers)**.																
•n-Butyraldehyde, *see* **Butyraldehyde (all isomers)**.																
Butyl methacrylate ...	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Butyraldehyde (all isomers).	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Open	II	G–1	NR	Vent F	Yes	.55–1(h)	I–C	NA	G
Camphor oil *(light)* ...	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	No	I-D	NA	G

Carbolic oil	Atmos.	Amb.	I	1ii 2ii	Integral Grav-ity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5 .... .50-73 ..	NA	NA	G
•Carbon dioxide, *liq-uefied.*	Press.	Low	III	1 NA 2i	Ind. Pres-sure.	SR	Restr.	I-L	P-1	NR	Vent F	No	.50-30 ..	NA	.40-1(b)(1)	G
Carbon disulfide	Atmos.	Amb.	II	1NA 2ii	Ind. Grav-ity.	PV	Restr.	II	G-1	Inert	Vent F	Yes	.50-40 .. .50-41 ..	I-A	NA	G
Carbon tetrachloride	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	PV	Open	II	G-1	NR	Vent N	No	No	NA	NA	G
Caustic potash solu-tion.	Atmos.	Amb. Elev.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	NR	No	.50-73 .. .55-1(j)	NA	NA	G
Caustic soda solution	Atmos.	Amb. Elev.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	NR	No	.50-73 .. .55-1(j)	NA	NA	G
Chlorine	Press.	Amb.	I	1NA 2ii	Ind. Pres-sure.	SR 300 p.s.i.	Indirect	I	P-2	NR	Vent F	No	.50-30 .. .50-31 ..	NA	NA	3
Chlorobenzene	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Open	II	G-1	NR	Vent N	Yes	No	I-D	NA	G
Chloroform	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent F	No	No	NA	NA	G
Chlorohydrins *(crude).*	Atmos.	Amb.	I	1ii 2ii	Integral Grav-ity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5	I-D	NA	G
Chlorosulfonic acid ..	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Open	II	G-1	NR	Vent N	No	.50-20 .. .50-21 .. .50-73 ..	I-B	NA	G
o-Chloronitro ben-zene.	Atmos.	Amb.	I	1ii 2ii	Integral Grav-ity.	PV	Closed	I	G–1	NR	Vent F	Yes	.50–5 50–73	NA	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
•Coal tar naphtha solvent.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	Yes	**.50-73** ..	I-D	NA	G
•Coal tar pitch (molten).	Atmos.	Elev.	III	1ii 2ii	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	Yes	**.50-73** ..	I-D	NA	G
Creosote	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	No	NA	NA	G
Cresols (all isomers)	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	No	NA	NA	G
Cresols with less than 5% Phenol, see Cresols (all isomers).																
Cresols with 5% or more Phenol, see Phenol.																
Cresylate spent caustic.	Atmos.	Amb.	III	1ii 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	.50-73 .. .55-1(b)	NA	NA	G
Cresylic acid, sodium salt solution, *see* Cresylate spent caustic.																
Crotonaldehyde	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(h)	I-C	NA	G

Cyclohexanone	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.56-1(a), (b).	I-D	NA	G
Cyclohexylamine	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.56-1(a), (b), (c), (g).	I-D	NA	G
iso-Decyl acrylate	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	Yes	.50-70(a). .50-81(a), (b). .55-1(c)	NA	NA	G
Dichlorobenzene (all isomers).	Atmos.	Amb.	III	1ii 2i	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.56-1(a), (b).	I-D	NA	G
1,1-Dichloroethane ...	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Dichlorodifluoro-methane.	Press.	Amb.	III	1NA 2i	Ind. Pres-sure.	SR	Restr.	II	P-1	NR	NR	No	No	NA	NA	G
2,2'-Dichloroethyl ether.	Atmos.	Amb.	II	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(f)	**I-C**	NA	G
Dichloromethane	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	No	No	**I-D**	NA	G
2,4-Dichlorophenoxy-acetic acid, diethanolamine salt solution.	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	No	.56-1(a), (b), (c), (g).	NA	NA	G
2,4-Dichlorophenoxy-acetic acid, di-methylamine salt solution.	Atmos.	Amb. Elev	III	1i 2i	Integral Grav-ity.	PV	Restr	II	G-1	NR	Vent F	No	.56-1(a), (b), (c), (g).	NA	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	.56-1(a), (b), (c), (g).	NA	NA	G
1,1-, 1,2-, or 1,3-Dichloropropane, *see individual entries.*																
1,1-Dichloropropane	Atmos.	Amb.	III	1i 2ii	Integral Gravity..	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
1,2-Dichloropropane	Atmos.	Amb.	III	1i 2ii	Integral Gravity..	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
1,3-Dichloropropane	Atmos.	Amb.	III	1i 2ii	Integral Gravity..	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
1,3-Dichloropropene	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Dichloropropene, Dichloropropane mixtures.	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Closed	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
2,2-Dichloropropionic acid.	Atmos.	Amb.	II	1ii 2i	Integral Gravity.	PV	Restr	II	G-1	Dry	Vent F	Yes	.50-73 .. .58-1(e)	NA	NA	G
Diethanolamine	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(c)	NA	NA	G

Diethylamine	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(c)	I-C	NA	G
Diethylenetriamine ...	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(c)	NA	NA	G
Diethyl ether, *see* Ethyl ether.																
Diisobutylamine	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(c)	I-C	NA	G
Diisopropanolamine	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(c)	NA	NA	G
Diisopropylamine	Atmos.	Amb.	II	1ii 2ii	Integral Grav-ity.	PV	Closed	II	G-1	NR	Vent F	Yes	.55-1(c)	I-C	NA	G
N,N-Dimethylacet-amide.	Atmos.	Amb.	III	1ii 2i	Integral Grav-ity.	PV	Restr	II	G-1	NR	Vent F	Yes	.56-1(b)	I-D	NA	G
Dimethylamine	Press.	Amb.	II	1NA 2ii	Ind. Pres-sure.	SR	Restr.	II	P-2	NR	Vent F	Yes	.55-1(c)	I-C	NA	G
Dimethylethanol-amine.	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Restr	II	G-1	NR	Vent F	Yes	.56-1(b), (c).	I-C	NA	G
Dimethylformamide ..	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(e)	I-D	NA	G
1,4-Dioxane	Atmos.	Amb.	II	1ii 2ii	Integral Grav-ity.	PV	Closed	II	G-1	Inerted	Vent F	Yes	No	I-C	NA	G
Diphenylmethane diisocyanate.	Atmos.	Elev.	II	1ii 2i	Integral Grav-ity.	PV	Closed	I	G-1	Inert Dry	Vent F	Yes	.50-5 .... .56-1(a), (b).	NA	Yes	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
Di-n-propylamine	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(c)	I-C	NA	G
Dodecyldimethylamine, Tetradecyldimethylamine mixture.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G–1	NR	Vent N	Yes	.56–1(b)	NA	NA	G
Epichlorohydrin	Atmos.	Amb.	I	1ii 2ii	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5	I-C	NA	G
Ethanolamine	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(c)	**I-D**	NA	G
Ethyl acrylate	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Ethylamine solution (72% or less).	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Closed	II	G-1	NR	Vent F	Yes	.55-1(b)	I-D	NA	G
N-Ethylbutylamine	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(b)	I-C	NA	G
Ethyl chloride	Press.	Amb.	II	1NA 2ii	Ind. Pressure.	SR	Restr.	II	P-2	NR	Vent F	Yes	No	I-D	NA	8
N-Ethylcyclohexylamine.	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(b)	I-C	NA	G

Ethylene chlorohydrin.	Atmos.	Amb.	I	1ii 2ii	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5 .... .50-73 ..	I-D	NA	G
Ethylene cyanohydrin	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	No	NA	NA	G
Ethylenediamine	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(c)	I-D	NA	G
Ethylene dibromide ..	Atmos.	Amb.	II	1ii 2i	Integral Gravity.	PV	Closed	II	G-1	NR	Vent F	No	No	NA	NA	G
Ethylene dichloride ..	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Ethylene glycol monoalkyl ethers. *Including:* ..... *2-Ethoxyethanol* ..... *Ethylene glycol butyl ether.* *Ethylene glycol tert-butyl ether.* *Ethylene glycol ethyl ether.* *Ethylene glycol methyl ether.* *Ethylene glycol n-propyl ether.* *Ethylene glycol iso-propyl ether.*	Atmos.	Amb.	III	1i; 2i	Integral Gravity..	PV	Restr.	II	G–1	NR	Vent F	Yes	No	I–C	NA	G
Ethylene glycol hexyl ether.	Atmos.	Amb.	III	1i; 2i	Integral Gravity..	Open	Open	II	G–1	NR	Vent N	Yes	No	NA	NA	G
Ethylene glycol propyl ether.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	No	NA	NA	G
Ethylene oxide	Press.	Amb.	I	1NA 2ii	Ind. Pressure.	SR	Restr.	II	P-2	Inert	Vent F	Yes	.50-10 .. .50-12 ..	I-B	.40-1(c)	4

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
Ethyl ether	Atmos.	Amb.	II	1NA 2ii	Ind. Gravity.	PV	Closed	II	G-1	Inert	Vent F	Yes	.50-40 .. .50-42 ..	I-C	NA	G
2-Ethylhexyl acrylate	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.50-70(a). .50-81(a), (b).	**I-D**	I-D	G
Ethylidene norbornene.	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Closed	II	G-1	NR	Vent F	Yes	.50-5 .... .50-74 ..	**NA**	NA	G
Ethyl methacrylate ...	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	Yes	.50-70(a).	I-D	NA	G
2-Ethyl-3-propylacrolein.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-C	NA	G
Ferric chloride solutions.	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	.50-20 .. .50-75 ..	I-B	NA	G
Fluorosilicic acid (30% or less).	Atmos.	Amb.	II	1ii 2ii	Ind. Gravity.	PV	Closed	II	G–1	NR	Vent F	No	.50–20 .50–22 **.50–73** **.50–77**	I–B	NA	4
Formaldehyde solution (37% to 50%).	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	No	.55-1(h)	**I-B**	NA	G
•Formic acid	Atmos.	Amb.	III	1ii 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	**.50-73** .. .55-1(i)	I-D	NA	G

Furfural	Atmos.	Amb.	III	1ii 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(h)	I-C	NA	G
Glutaraldehyde solution (50% or less).	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	No	NA	NA	G
Hexamethylenediamine solution.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(c)	I-D	NA	G
Hexamethyleneimine	Atmos.	Amb.	II	1ii 2i	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	Yes	.56-1(b), (c).	I-C	NA	G
Hydrochloric acid	Atmos.	Amb.	III	1NA 2ii	Ind. Gravity.	Open	Open	II	G-1	NR	Vent F	No	.50-20 .. .50-22 .. .50-73 ..	I-B	NA	4
Hydrofluoro silicic acid (25% or less), *see* **Fluorosilicic acid (30% or less)**.																
2-Hydroxyethyl acrylate.	Atmos.	Amb.	I	1ii 2i	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5 .... .50-70(a). .50-73 .. .50-81(a), (b).	NA	NA	G
Isoprene	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Open	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Kraft pulping liquors (free alkali content 3% or more) *(including: Black, Green, or White liquor).*	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	NR	No	.50-73 .. .56-1(a), (c), (g).	NA	NA	G
Mesityl oxide	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	Yes	No	I-D	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
Methylacetylene, Propadiene mixture.	Press.	Amb.	III	1 NA 2ii	Ind. Pressure.	SR	Restr.	II	P-2	NR	Vent F	Yes	.50-79 ..	I-C	NA	G
Methyl acrylate	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Methylamine solution (42% or less).	Atmos.	Amb.	II	1NA 2ii	Ind. Gravity.	PV	Closed	II	G-1	NR	Vent F	Yes	.56-1(a), (b), (c), (g).	I-D	NA	G
Methyl bromide	Press.	Amb.	I	1NA 2ii	Ind. Pressure.	SR	Closed	I	P-2	NR	Vent F	Yes	.50-5	I-D	NA	2
Methyl chloride	Press.	Amb.	II	1NA 2ii	Ind. Pressure.	SR	Restr.	II	P-2	NR	Vent F	Yes	.55-1(c)	I-D	NA	8
Methylcyclopentadiene dimer.	Atmos	Amb	III	1i 2i	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	Yes	No	I-B	NA	G
Methyl diethanolamine.	Atmos	Amb	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.56-1(b), (c).	I-C	NA	G
2-Methyl-5-ethylpyridine.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(e)	**I-D**	NA	G

Methyl methacrylate	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
2-Methylpyridine	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(c)	I-D	NA	G
alpha-Methylstyrene	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Monochlorodifluoro-methane.	Press.	Amb.	III	1NA 2i	Ind. Pres-sure.	SR	Restr.	I	P-1	NR	NR	No	No	NA	NA	G
Morpholine	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(c)	I-C	NA	G
Motor fuel anti-knock compounds (con-taining lead alkyls).	Atmos.	Amb.	I	1ii 2ii	Ind. Grav-ity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-6 .... **.50-73** ..	I-D	NA	.50-6
Nitric acid (70% or less).	Atmos.	Amb.	II	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	No	.50-20 .. .50-73 .. .50-80 ..	I-B	NA	4
Nitrobenzene	Atmos.	Amb.	I	1ii 2ii	Integral Grav-ity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5 .... .50-73 ..	I-D	NA	G
Nitrogen, *liquefied*	Press.	Low	III	1NA 2i	Ind. Pres-sure.	SR	Restr	II-L	P-1	NR	Vent F	No	.40-1(a) .50-30 .. .50-36.,	NA	.40-1(a)	G
o-Nitrotoluene	Atmos.	Amb.	I	1ii 2ii	Integral Grav-ity.	PV	Closed	I	G–1	NR	Vent F	Yes	.50–5 50–73	I–D	NA	G
1- or 2-Nitropropane	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-81 ..	I-C	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
•Octyl nitrates (all isomers), *see* **Alkyl(C7–C9) nitrates**.																
Oleum	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	.50-20 .. .50-21 .. .50-73 ..	I-B	NA	4
Pentachloroethane ...	Atmos	Amb	III	1ii 2i	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	No	No	NA	NA	G
1,3-Pentadiene	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81 ..	I-D	NA	G
Perchloroethylene	Atmos.	Amb.	III	1i 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	No	No	NA	NA	G
Phenol	Atmos.	Amb.	I	1ii 2i	Integral Gravity.	PV	Closed	I	G-1	NR	Vent F	Yes	.50-5 .... .50-73 ..	**I-D**	NA	2
•Phosphoric acid	Atmos.	Amb.	III	1ii 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	.50-20 .. .50-23 .. **.50-73** ..	I-B	NA	4
•Phosphorus, **white (elemental)**.	Atmos.	Elev.	I	1ii 2ii	Integral Gravity.	PV	Closed	I	G-1	Water Pad	Vent F	Yes	.50-50 ..	NA	NA	4-8
Phthalic anhydride (molten).	Atmos.	Elev.	III	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	No	**I-D**	NA	G

Polyethylene polyamines.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(e)	NA	NA	G
Polymethylene polyphenyl isocyanate.	Atmos.	Amb.	II	1ii 2i	Integral Gravity.	PV	Closed	II	G-1	Dry	Vent F	Yes	.55-1(e)	NA	NA	G
Potassium hydroxide solution, *see* Caustic potash solution.																
iso-Propanolamine ...	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(c)	I-D	NA	G
Propanolamine (iso-, n-).	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.56-1(b), (c).	I-D	NA	G
•Propionic acid	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	**.50-73** .. .55-1(g)	I-D	NA	G
iso-Propylamine	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Closed	II	G-1	NR	Vent F	Yes	.55-1(c)	I-D	NA	G
Propylene oxide	Press.	Amb.	II	1NA 2ii	Ind. Pressure.	SR	Restr.	II	P-1	Inerted	Vent F	Yes	.50-10 .. .50-13 ..	I-B	NA	G
iso-Propyl ether	Atmos.	Amb.	III	1ii 2ii	Integral Gravity.	PV	Restr	II	G-1	Inert	Vent F	Yes	.50-70(a).	I-D	NA	G
Pyridine	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(e)	I-D	NA	G
•Sodium aluminate solution **(45% or less)**.	Atmos	Amb/ Elev	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	NR	No	.50-73 .. .56-1(a), (b), (c).	NA	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
•Sodium chlorate solution (50% or less).	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	**.50-73** ..	NA	NA	G
Sodium dichromate solution (70% or less).	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	Open	Closed	II	G-1	NR	Vent N	No	.50-5(d) .50-73 .. .56-1(b), (c).	NA	NA	G
Sodium hydroxide solution, *see* Caustic soda solution.																
•Sodium hypochlorite solution **(20% or less)**.	Atmos.	Amb.	III	1i 2ii	Integral Gravity.	PV	Restr	II	G-1	NR	Vent F	No	.50-73 .. .56-1(a), (b).	NA	NA	G
Sodium sulfide, hydrosulfide solutions (H_2S 15ppm or less).	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	No	.50-73 .. .55-1(b)	NA	NA	G
Sodium sulfide, hydrosulfide solutions (H_2S greater than 15ppm but less than 200ppm).	Atmos.	Amb.	III	1ii 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	No	.50-73 .. .55-1(b)	NA	NA	G
Sodium sulfide, hydrosulfide solutions (H_2S greater than 200ppm).	Atmos.	Amb.	II	1ii 2i	Integral Gravity.	PV	Closed	II	G-1	NR	Vent F	No	.50-73 .. .55-1(b)	NA	NA	G
Sodium thiocyanate solution (56% or less).	Atmos	Amb	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.58-1(a)	NA	NA	G

Styrene *monomer*	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Sulfur (molten)	Atmos.	Elev.	III	1i 2ii	Integral Grav-ity.	Open	Open	II	G-1	Vent N	Vent N	Yes	.50-55 ..	I-C	.40-1(f)(1)	G
Sulfur dioxide	Press.	Amb.	I	1NA 2ii	Ind. Pres-sure.	SR	Closed	.....	P-2	NR	Vent F	No	.50-30 .. .50-84 .. .55-1(j)	NA	NA	2
Sulfuric acid	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	No	.50-20 .. .50-21 .. .50-73 ..	I-B	NA	4
Sulfuric acid, spent ..	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	No	.50-20 .. .50-21 .. .50-73 ..	I-B	NA	4
1,1,2,2-Tetrachloro-ethane.	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr	II	G-1	NR	Vent F	No	No	NA	NA	G
Tetraethylenepent-amine.	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(c)	**I-C**	NA	G
Tetrahydrofuran	Atmos	Amb	III	1i 2ii	Integral Grav-ity.	PV	Restr	II	G-1	NR	Vent F	Yes	.50-70(b).	I-C	NA	G
Toluene diisocyanate	Atmos.	Amb.	I	1ii 2ii	Integral Grav-ity.	PV	Closed	I	G-1	Dry N_2	Vent F	Yes	.50-5 .... .55-1(e)	**I-D**	NA	G
1,2,4-Trichloro-benzene.	Atmos.	Amb.	III	1ii 2ii	Integral Grav-ity.	PV	Restr.	II	G–1	NR	Vent F	Yes	No	I–D	NA	G
1,1,2-Trichloroethane	Atmos	Amb	III	1ii 2i	Integral Grav-ity.	PV	Restr	II	G-1	NR	Vent F	No	.50-73 .. .56-1(a)	I-D	NA	G
Trichloroethylene	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	No	No	I-D	NA	G

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification[1]			Hull type	Cargo segregation tank	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (section in 46 CFR part 151)	Electrical hazard class-group	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Type	Vent	Gauging device	Piping class	Control	Cargo tanks	Cargo handling space					
1,2,3-Trichloropropane.	Atmos.	Amb.	II	1ii 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-73 .. .56-1(a)	**I-D**	NA	G
Triethanolamine	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(b)	**I-C**	NA	G
Triethylamine	Atmos.	Amb.	II	1ii 2ii	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.55-1(e)	**I-C**	NA	G
Triethylenetetramine	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G-1	NR	Vent N	Yes	.55-1(b)	**I-C**	NA	G
Triphenylborane (10% or less), Caustic soda solution.	Atmos.	Amb.	III	1i 2i	Integral Gravity.	Open	Open	II	G–1	NR	NR	No	.56–1(a), (b), (c).	NA	NA	G
Trisodium phosphate solution.	Atmos.	Amb. Elev.	III	1i 2i	Integral Gravity.	Open	Open	II	G–1	NR	NR	No	.50–73 .56–1(a), (c).	NA	NA	G
Urea, Ammonium nitrate solution (containing more than 2% NH_3).	Atmos.	Amb.	III	1i 2i	Integral Gravity.	PV	Restr.	II	G-1	NR	Vent F	No	.56-1(b)	I-D	NA	G
Valeraldehyde (iso-, n-), *see* **Valeraldehyde (all isomers)**.																
Valeraldehyde (all isomers).	Atmos.	Amb.	III	1i 2ii	Integral Gravity..	PV	Restr.	II	G-1	Inert	Vent F	Yes	No	I-C	NA	G

Vanillan black liquor (free alkali content 3% or more).	Atmos.	Amb.	III	1i 2i	Integral Grav-ity.	Open	Open	II	G-1	NR	NR	No	.50-73 .. .56-1(a), (c), (g).	NA	NA	G
Vinyl acetate	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Open	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81(a), (b).	I-D	NA	G
Vinyl chloride	Press.	Amb.	II	1NA 2ii	Ind. Pres-sure.	SR	Closed	II	P-2	NR	Vent F	Yes	.50-30 .. .50-34 ..	I-D	NA	8
Vinyl chloride	Atmos.	Low	II	1NA 2ii	Ind. Grav-ity.	PV	Closed	II-L	G-2	NR	Vent F	Yes	.50-30 .. .50-34 ..	I-D	.40-1(b)(1)	8
Vinylidene chloride ...	Atmos.	Amb.	II	1NA 2ii	Ind. Grav-ity.	PV	Closed	II	P-2	Padded	Vent F	Yes	.55-1(f) .50-70(a). .50-81(a), (b).	I-D	NA	G
Vinyltoluene	Atmos.	Amb.	III	1i 2ii	Integral Grav-ity.	PV	Restr.	II	G-1	NR	Vent F	Yes	.50-70(a). .50-81 .. .56-1(a), (b), (c), (g).	I-D	NA	G
For requirements see these sections:.	.....	.....	151.10-1	151.13-5	151.15-1.	151.15-5	151.15-10	151.20-1	151.20-5	151.25-1	151.25-2	151.30	.....	111.105 (Sub-chapter J)	151.40	151.04-5

See Table 2 of Part 153 for additional cargoes permitted to be carried by tankbarge.

Items with a bullet (•) or in **boldface** are changes since October 1, 1993.

Terms and symbols:

Segregation—Tank—
Line 1—Segregation of cargo from surrounding waters:
i=Skin of vessel (single skin) only required. Cargo tank wall can be vessel's hull.
ii=Double skin required. Cargo tank wall cannot be vessel's hull.
Line 2—Segregation of cargo space from machinery spaces and other spaces which have or could have a source of ignition:
i=Single bulkhead only required. Tank wall can be sole separating medium.
ii=Double bulkhead required. Cofferdam, empty tank, pumproom, tank with Grade E Liquid (if compatible with cargo) is satisfactory.

Internal tank inspection—
G—Indicates cargo is subject to general provisions of 151.04-5(b).
Specific numbers in this column are changes from the general provisions.

Abbreviations used:

Tank type: Ind=Independent.
Vent:
PV=Pressure vacuum valve.
SR=Safety relief.
Gauging device: Restr.=Restricted.

General usage:

NR=No requirement.
NA=Not applicable.

1. The provisions contained in 46 CFR Part 197, subpart C, apply to liquid cargoes contining 0.5% or more benzene by volume.

[CGD 88–100, 54 FR 40029, Sept. 29, 1989, as amended by CGD 85–061, 54 FR 50966, Dec. 11, 1989; CGD 88–100, 55 FR 17277, Apr. 24, 1990; CGD 88–040, 56 FR 52135, Oct. 17, 1991; 56 FR 65006, Dec. 13, 1991; CGD 92–100, 59 FR 17027, Apr. 11, 1994; CGD 94–900, 59 FR 45136, 45137, 45138, Aug. 31, 1994; CGD 94–902, 60 FR 34043, June 29, 1995; CGD 95–900, 60 FR 34050, June 29, 1995]