PART II RULES FOR THE CONSTRUCTION AND CLASSIFICATION OF SHIPS IDENTIFIED BY THEIR MISSION

TITLE 33 CHEMICAL TANKERS

INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMCIALS IN BULK, 1983, AS AMENDED 2004

ANNEX II OPERATION REQUIREMENTS

CHAPTERS

A OPERATION REQUIREMENTS

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CHAPTER A (16)
OPERATING REQUIREMENTS

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A1. OPERATION RQUIREMENTS

100. 16.1 Maximum allowable quantity of cargo per tank

101. 16.1.1 The quantity of a cargo required to be carried in a type 1 ship shall not exceed 1 250 m^3 in any one tank.

102. 16.1.2 The quantity of cargo required to be carried in a type 2 ship shall not exceed 3 000 m^3 in any one tank.

103. 16.1.3 Tanks carrying liquids at ambient temperatures shall be so loaded as to avoid the tank becoming liquid-full during the voyage, having due regard to the highest temperature which the cargo may reach.

200. 16.2 Cargo information

201. 16.2.1 A copy of this Code, or national regulations incorporating the provisions of this Code, shall be on board every ship covered by this Code.

202. 16.2.2 Any cargo offered for bulk shipment shall be indicated in the shipping documents by the product name, under which it is listed in ANNEX III (chapter 17) or ANNEX IV (chapter 18) of the RBNA Rules or the latest edition of MEPC.2/Circ. or under which it has been provisionally assessed. Where the cargo is a mixture, an analysis indicating the dangerous components contributing significantly to the total hazard of the product shall be provided, or a complete analysis if this is available. Such an analysis shall be certified by the manufacturer or by an independent expert acceptable to the Administration.

203. 16.2.3 Information shall be on board, and available to all concerned, giving the necessary data for the safe carriage of the cargo in bulk. Such information shall include a cargo stowage plan, to be kept in an accessible place, indicating all cargo on board, including each dangerous chemical carried:

a. .1 a full description of the physical and chemical properties, including reactivity, necessary for the safe containment of the cargo;

b. .2 action to be taken in the event of spills or leaks;

c. .3 countermeasures against accidental personal contact;

d. .4 fire-fighting procedures and fire-fighting media;

e. .5 procedures for cargo transfer, tank cleaning, gas-freeing and ballasting; and

f. .6 for those cargoes required to be stabilized or inhibited, the cargo shall be refused if the certificate required by these paragraphs is not supplied.

204. 16.2.4 If sufficient information, necessary for the safe transportation of the cargo, is not available, the cargo shall be refused.

205. 16.2.5 Cargoes which evolve highly toxic imperceptible vapours shall not be transported unless perceptible additives are introduced into the cargo.

206. 16.2.6 Where column o in the table of chapter 17 refers to this paragraph, the cargo's viscosity at 20°C shall be specified on a shipping document, and if the cargo's viscosity exceeds 50 mPa·s at 20°C, the temperature at which the cargo has a viscosity of 50 mPa·s shall be specified in the shipping document.

207. 16.2.9 Where column o in the table of ANNEX III (chapter 17) refers to this paragraph, the cargo's melting point shall be indicated in the shipping document.

300. 16.3 Personnel training

301. 16.3.1 All personnel shall be adequately trained in the use of protective equipment and have basic training in the procedures appropriate to their duties necessary under emergency conditions.

302. 16.3.2 Personnel involved in cargo operations shall be adequately trained in handling procedures.

303. 16.3.3 Officers shall be trained in emergency procedures to deal with conditions of leakage, spillage or fire involving the cargo and a sufficient number of them shall be instructed and trained in essential first aid for cargoes carried, based on the guidelines developed by the Organization.

Guidance

Refer to the Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG), which provides advice on the treatment of casualties in accordance with the symptoms exhibited as well as equipment and antidotes that may be appropriate for treating the casualty and to the relevant provisions of the STCW Code, parts A and B.

End of guidance

400. 16.4 Opening of and entry into cargo tanks

401. 16.4.1 During handling and carriage of cargoes producing flammable and/or toxic vapours or when ballasting after the discharge of such cargo, or when loading or unloading cargo, cargo tank lids shall always be kept closed. With any hazardous cargo, cargo tank lids,

ullage and sighting ports and tank washing access covers shall be open only when necessary.

402. 16.4.2 Personnel shall not enter cargo tanks, void spaces around such tanks, cargo-handling spaces or other enclosed spaces unless:

a. .1 the compartment is free of toxic vapours and not deficient in oxygen; or

b. .2 personnel wear breathing apparatus and other necessary protective equipment, and the entire operation is under the close supervision of a responsible officer.

c. 16.4.3 Personnel shall not enter such spaces when the only hazard is of a purely flammable nature, except under the close supervision of a responsible officer.

500. 16.5 Stowage of cargo samples

501. 16.5.1 Samples which have to be kept on board shall be stowed in a designated space situated in the cargo area or, exceptionally, elsewhere, subject to the approval of the Administration.

502. 16.5.2 The stowage space shall be:

a. .1 cell-divided in order to avoid shifting of the bottles at sea;

b. .2 made of material fully resistant to the different liquids intended to be stowed; and

c. .3 equipped with adequate ventilation arrangements.

503. 16.5.3 Samples which react with each other dangerously shall not be stowed close to each other.

504. 16.5.4 Samples shall not be retained on board longer than necessary.

600. 16.6 Cargoes not to be exposed to excessive heat

601. 16.6.1 Where the possibility exists of a dangerous reaction of a cargo, such as polymerization, decomposition, thermal instability or evolution of gas, resulting from local overheating of the cargo in either the tank or associated pipelines, such cargo shall be loaded and carried adequately segregated from other products whose temperature is sufficiently high to initiate a reaction of such cargo – see Part II, Title 33, Section 6, C1.105.d (7.1.5.4).

602. 16.6.2 Heating coils in tanks carrying this product shall be blanked off or secured by equivalent means.

603. 16.6.3 Heat-sensitive products shall not be carried in deck tanks, which are not insulated.

604. 16.6.4 In order to avoid elevated temperatures, this cargo shall not be carried in deck tanks.

TABLE T.A1.206.1 - CHAPTER 17 OF THE IBC CODE MEPC 64/WP.12

a	c	d	e	f	g	h	i'	i''	i'''	j	k	l	n	o
Acetic acid	Z	S/P	3	2G	Cont	No	T1	IIA	No	R	F	A	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7,
														15.11.8, 15.19.6, 16.2.9
Acetic anhydride	Z	S/P	2	2G	Cont	No	T2	IIA	No	R	FT	A	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7,
														15.11.8, 15.19.6
Acetochlor	X	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.6, 16.2.9
Acetone cyanohydrin	Y	S/P	2	2G	Cont	No	T1	IIA	Yes	C	T	A	Yes	15.12, 15.13,15.17, 15.18, 15.19, 16.6.1, 16.6.2,
														16.6.3
Acetonitrile	Z	S/P	2	2G	Cont	No	T2	IIA	No	R	FT	A	No	15.12, 15.19.6
Acetonitrile (Low purity grade)	Y	S/P	3	2G	Cont	No	T1	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Acid oil mixture from soyabean, corn (maize) and sunflower oil refining	Y	S/P	2	2G	Open	No	-	-	Yes	O	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Acrylamide solution (50% or less)	Y	S/P	2	2G	Open	No			NF	C	No	No	No	15.12.3, 15.13, 15.19.6, 16.2.9, 16.6.1
Acrylic acid	Y	S/P	2	2G	Cont	No	T2	IIA	No	C	FT	A	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7,
														15.11.8, 15.12.3, 15.12.4, 15.13, 15.17, 15.19,
														16.2.9, 16.6.1
Acrylonitrile	Y	S/P	2	2G	Cont	No	T1	IIB	No	C	FT	A	Yes	15.12, 15.13, 15.17, 15.19
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	Y	P	3	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.6
Adiponitrile	Z	S/P	3	2G	Cont	No		IIB	Yes	R	T	A	No	16.2.9
Alachlor technical (90% or more)	X	S/P	2	2G	Open	No			Yes	O	No	AC	No	15.19.6, 16.2.9
Alcohol (C9-C11) poly (2.5-9) ethoxylate	Y	P	3	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.6, 16.2.9

Alcohol (C12-C16) poly(1-6)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C12-C16) poly(20+)ethoxylates	Y	P	3	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C12-C16) poly(7-19)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohols (C13+)	Y	P	2	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.9
Alcohols (C12+), primary, linear	Y	S/P	2	2G	Open	No	-	-	Yes	O	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alcohols (C8-C11), primary, linear and essentially linear	Y	S/P	2	2G	Cont	No	-	-	Yes	R	T	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Alcohols (C12-C13), primary, linear and essentially linear	Y	S/P	2	2G	Open	No	-	-	Yes	O	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alcohols (C14-C18), primary, linear and essentially linear	Y	S/P	2	2G	Open	No	-	-	Yes	O	No	ABC	No	15.19.6, 16.2.6
Alkanes (C6-C9)	X	P	2	2G	Cont	No	T3	IIA	No	R	F	A	No	15.19.6
Iso- and cyclo-alkanes (C10-C11)	Y	P	3	2G	Cont	No	T3	IIA	No	R	F	A	No	15.19.6
Iso- and cyclo-alkanes (C12+)	Y	P	3	2G	Cont	No	T3	IIA	No	R	F	A	No	
Alkanes(C10-C26), linear and branched, (flashpoint >60°C)	Y	S/P	3	2G	Open	No	-	-	Yes	O	No	ABC	No	15.19.6