Subject

Application of IMSBC Code (2014 Edition)

ClassNK

Technical Information

No. TEC-0979
Date 22 January 2014

To whom it may concern

With regard to application of IMSBC Code (2014 Edition), please be informed as follows.

1. Amendments of IMSBC Code
   The revised IMSBC Code (IMSBC Code (2014 Edition)) was adopted by IMO Maritime Safety Committee 92nd session (MSC92) and it includes amendments for individual schedules of each cargo. Please note that present IMSBC Code is "IMSBC Code (2012 Edition)".
   IMSBC Code (2014 Edition) is going to enter into force on 1 January 2015 and is mandatory for all ships that load solid bulk cargoes.

2. Guidance for IMSBC Code fitness certificate
   Regarding IMSBC Code (2014 Edition) fitness certificate, please refer to the attachment "Guidance for application of IMSBC Code (2014 Edition) fitness certificate". Regarding IMSBC Code (2012 Edition) fitness certificate, please refer to our technical information No.TEC-0936.

3. Cargoes newly added and Cargoes for which requirements on construction and equipment are added
   Please note that there are cargoes newly added and cargoes for which construction and equipment requirements are added in IMSBC Code (2014 Edition) relative to IMSBC Code (2012 Edition). Please refer to "Table G1 - Cargoes newly added and Cargoes for which requirements on construction/equipment are added (IMSBC Code (2014 Edition))".

4. Revision of the exemption certificate for Fixed Gas Fire-extinguishing system
   (1) Fixed Gas Fire-extinguishing system is additionally exempted for loading following cargoes under IMSBC Code (2014 Edition) and MSC.1/Circ.1395/Rev.1 (Please refer to attachment 3.).
   -METAL SULPHIDE CONCENTRATES (Low fire-risk)
   -ALUMINA HYDRATE
   -CLINKER ASH, WET
   -COAL TAR PITCH
   -GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)
   At the time of loading of these cargoes, it is necessary to add these cargoes names in list of cargoes attached to the exemption certificate.

(To be continued)

(2) In case where a full term exemption certificate has been issued by ClassNK or in case where Panamanian and Liberian flag ships, the procedures to revise the exemption certificate are prescribed in the following i) or ii).

i) In case where survey is conducted*
Please submit an application for the exemption certificate to ClassNK survey office. (Please also submit an application for the IMSBC Code fitness certificate if necessary)

ii) In case where survey is not conducted*
Please submit an application for the exemption certificate to Material and Equipment Department (EQD). (Please also submit an application for the IMSBC Code fitness certificate if necessary)

*: "In case where survey is conducted" means the case that survey is conducted for issuance of the IMSBC Code fitness certificate adding cargoes mentioned in (1). "In case where survey is not conducted" means the case except shown in preceding sentence. Please note that it depends on the ship's construction and equipment or each cargo whether survey is required or not. If it is not clear whether the survey is required or not, please contact to EQD.

In case of Panamanian flag ships, it is necessary for shipowner or management company to apply for the full term exemption certificate to Panama Maritime Authority directly after interim exemption certificate is issued by ClassNK.
In case of Liberian flag ships, the full term exemption certificate will be applied to Liberian Government by ClassNK after the issuance of interim exemption certificate.

(3) In case where a full term exemption certificate is issued by the flag authorities except Panamanian and Liberian Governments, it is necessary for shipowner or management company to apply for the exemption certificate to those authorises directly.

5. Additional construction and equipment requirements for "AMMONIUM NITRATE"
As shown in "Table G1 - Cargoes newly added and Cargoes for which requirements on construction/equipment are added (IMSBC Code(2014 Edition))", requirements for heating arrangement are newly applied as the construction and equipment requirements for AMMONIUM NITRATE (IMO class 5.1, UN No.1942), AMMONIUM NITRATE-BASED FERTILIZER(Type A) (IMO class 5.1, UN No.2067), AMMONIUM NITRATE-BASED FERTILIZER (Type B) (IMO class 5.1, UN No.2071) and AMMONIUM NITRATE BASED FERTILIZER (non-hazardous). And the requirements are going to enter into force on 1 January 2015.
In case of AMMONIUM NITRATE (IMO class 5.1, UN No.1942), equipment to disconnect heating system to FOT adjacent to the cargo space containing the cargo is required. Disconnection should be spectacle flanges.

(To be continued)

In case of AMMONIUM NITRATE-BASED FERTILIZER(Type A) (IMO class 5.1, UN No.2067), AMMONIUM NITRATE-BASED FERTILIZER (Type B) (IMO class 5.1, UN No.2071) and AMMONIUM NITRATE BASED FERTILIZER (non-hazardous), continuous temperature monitoring and control means to maintain temperature not exceeding 50°C are required for boundary between FOT and cargo space loading those cargoes. In this case, the above equipment to disconnect heating system to FOT (In principle, spectacle flanges) will be alternative one.

In case of existing ships, relevant equipment to each cargo intended to load on ships should be provided by the first loading time of the cargoes on or after 1 January 2015. Therefore, please provide such equipment by the first loading time.
ClassNK is planning to confirm above equipment at onboard survey for existing and new ships having or intended to have IMSBC Code fitness certificate including relevant cargoes. Procedure and schedule will be informed by our Technical Information in the future.

6. Application of IMSBC Code (2014 Edition) on voluntary basis
Basically, IMSBC Code fitness certificate will be issued in accordance with IMSBC Code (2012 Edition) until 31 December 2014. However, IMSBC Code fitness certificate in accordance with IMSBC Code (2014 Edition) can be issued based on requests from owners/shipbuilders as voluntary basis as follows in that period. In this case, cargoes listed in Table G-1 are objectives.
(1) Cargoes listed in Table G-1 as Group A and Group C except AMMONIUM NITRATE-BASED FERTILIZER (non-hazardous)
In case where "All cargoes of Group A and Group C" has been listed in the cargo list of present IMSBC Code fitness certificate, it may be considered to show compliance with IMSBC Code (2014 Edition). In this case, revision of the certificate is not necessary.
(2) Cargoes listed in Table G-1 as Group B, Group A and B except Cargoes mentioned in above 5 (AMMONIUM NITRATE).
IMSBC Code (2014 Edition) fitness certificate will be issued in case where ships comply with requirements for each cargo listed in Table G-1. Onboard survey is necessary to issue the certificate.
(3) Cargoes listed in above 5 (AMMONIUM NITRATE).
Onboard survey for the additional construction and equipment requirements (requirements for heating arrangement) is necessary to issue IMSBC Code (2014 Edition) fitness certificate. However, in case where these cargoes have already been listed in present IMSBC Code fitness certificate and ships have not complied with the additional construction and equipment requirements, these cargoes will be deleted from the present certificate.

(To be continued)

For any questions about the above, please contact:

[IMSBC Code fitness certificate and related questions]
NIPPON KAIJI KYOKAI (ClassNK)
Material & Equipment Department, Administration Center, Head Office
Address: 4-7 Kioi-cho, Chiyoda-ku, Tokyo 102-8567, Japan
Tel.: +81-3-5226-2020
Fax: +81-3-5226-2057
E-mail: eqd@classnk.or.jp

[Exemption certificate from Fixed Gas Fire-extinguishing system]
Classification Department, Information Center, Head Office
Address: 1-8-5 Ohnodai, Midori-ku, Chiba 267-0056, Japan
Tel.: +81-43-294-5784
Fax: +81-43-294-5449
E-mail: cld@classnk.or.jp

Attachment:

1. Guidance for application of IMSBC Code (2014 Edition) fitness certificate
2. Table G1 - Cargoes newly added and Cargoes for which requirements on construction/equipment are added (IMSBC Code (2014 Edition))
3. Table 1, LIST OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM MAY BE EXEMPTED - MSC.1/Circ.1395/Rev.1

Guidance for application of IMSBC Code (2014 Edition) fitness certificate

0101 General

Under the IMSBC Code, cargoes are classified into those likely to liquefy (Group A), those having chemical hazard (Group B) and others (Group C). In this guidance, they are referred to as "Group A cargoes", "Group B cargoes" and "Group C cargoes" respectively. This guidance is for ships applied IMSBC Code (2014 Edition). Regarding IMSBC Code (2012 Edition), please refer to our technical information No. TEC-0936.

0102 Requirements for construction and equipment

-1. A loading manual and a stability information booklet approved by ClassNK are required to be provided onboard regardless of the types of cargoes intended to be carried.

-2. No special construction and equipment is required for the carriage of Group A and Group C cargoes except that specially designed portable divisions or permanent structural boundaries to confine any shift of cargo to an acceptable limit are required for the carriage of Group A cargoes without appropriate restrictions on their moisture contents. For details, please refer to IMSBC Code Section 7.

-3. For the carriage of Group B cargoes, ships are to comply with the requirements for special construction and/or equipment specified in IMSBC Code. The requirements for the carriage of Group B cargoes except coal and brown coal (lignite) briquettes, please refer to Table 1.1 and 1.2. The requirements for the carriage of coal and brown coal (lignite) briquettes, please refer to Table 1.3.

Note 2.1: The Code provides special requirements for construction and equipment for fire protection and personnel protection as well as operational precautions and information on properties of each material.

Note 2.2: The applications of the requirements of SOLAS74 Reg.II-2/53 and 54 for carriage of dangerous goods (Reg.II-2/10.7 and 19 under SOLAS2000) are also shown in Table 1.1 for convenience sake.

0103 Application

-1. Applicant, the ship owner or their representative, or the shipbuilder, should submit an application containing the information on the items listed below to ClassNK local office or Material and Equipment Department (EQD) prior to the survey onboard the ship. (Please refer to 0104)

(1) List of cargoes to be included in the IMSBC Code fitness certificate (Group A cargoes, Group C cargoes and/or Group B cargoes. In case where the Group B cargoes are included, it is necessary to submit the list of Group B cargoes to EQD.)

(2) In case where a survey onboard the ship is required, expected date and place of the survey and local agent to be contacted (Only for existing vessel)

(3) A list of documents submitted together with the application and of those expected to be submitted later, if any.

-2. In case where dangerous goods are included in the cargoes, the applicant should also apply for the issue of a certificate of compliance with the requirements of SOLAS74 Reg.II-2/54 *(Reg.II-2/19 under SOLAS2000)* as necessary.

0104 Submission of documents

-1. In case where the certification is requested for the carriage of Group B cargoes, the applicant should submit the documents as shown in Table 1.4 (other than coal and brown coal (lignite) briquettes) and/or Table 1.5 (coal and brown coal (lignite) briquettes) to ClassNK local office or EQD. For existing ships, if ClassNK concludes that the condition of the ship's compliance with the requirements can be checked by the survey onboard, submission of documents and

documents examination may be omitted. If it is not clear whether the submission of documents and documents examination are necessary or not, please contact to EQD.

-2. In case where the certification is requested for the carriage of Group A cargoes without appropriate restrictions on their moisture contents, the applicant should submit three sets of relevant structural drawings, stability calculations and other documents considered necessary by ClassNK to EQD.

0105 Document examination, survey and issue of certificate

After documents examination at EQD (if necessary) and survey on board at ClassNK local office, IMSBC Code fitness certificate will be issued.

0106 Renewal and rewrite of the certificate

-1. Rewrite of IMSBC Code fitness certificate due to the inclusion of the cargoes shown in Table G1

In case where there are no additional requirements (the survey on board is not required), application and list of cargoes should be submitted to EQD. In case that there are additional requirements (the survey on board is required.), application and list of cargoes should be submitted to ClassNK local office or EQD.

-2. Renewal of IMSBC Code fitness certificate

Document examination at EQD is not required. Application should be submitted to ClassNK local office.

-3. Rewrite of IMSBC Code fitness certificate due to flag change.

Document examination at EQD is not required. Application should be submitted to ClassNK local office.

-4. Rewrite of IMSBC Code fitness certificate due to change of ship’s name.

Document examination at EQD is not required. Application should be submitted to ClassNK local office.

Table 1.1

Requirements of construction and equipment for individual cargoes
under the provisions of the IMSBC Code (2014 Edition) and SOLAS Reg.II-2/54.2 (Reg.II-2/19.3 on or after 2000 amendments)

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
ALFALFA			C																			
ALUMINA			C																			
ALUMINA, CALCINED			C																			
ALUMINA, SILICA			C																			
ALUMINA SILICA, pellets			C																			
ALUMINA HYDRATE	MHB		A and B				Y	Y														
ALUMINIUM FERROSILICON POWDER	4.3	1395	B	A, G	Y	ML,Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM NITRATE	5.1	1438	B				Y	Y			Y	Y		X	X				X	X		(Yes)
ALUMINIUM SILICON POWDER, UNCOATED	4.3	1398	B	A, G	Y	ML,Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS	4.3	3170	B	A, G	Y	ML,Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM SMELTING / REMELTING BY-PRODUCTS, PROCESSED	MHB		A and B	G	Y	ML			F													Yes
AMMONIUM NITRATE	5.1	1942	B	A	Y		Y	Y		IS		Y	N1	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type A)	5.1	2067	B	A	Y		Y	Y		IS		Y	N1 or N2	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type B)	9	2071	B	A	Y		Y	Y		IS		Y	N1 or N2	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE, BASED FERTILIZER (non-hazardous) [8]			C	A	Y		Y	Y		IS		Y	N1 or N2									
AMMONIUM SULPHATE			C																			
ANTIMONY ORE AND RESIDUE			C																			
BARIUM NITRATE	5.1	1446	B			Nm	Y	Y			Y	Y		X	X				X	X		(Yes)
BARYTES			C																			
BAUXITE			C																			
BIOSLUDGE			**C**																			
BORAX**,** ANHYDROUS, crude or refined			C																			
BORAX (PENTAHYDRATE CRUDE)			C																			
BROWN COAL BRIQUETTES	MHB		B	See Table 4.3																		
CALCIUM NITRATE	5.1	1454	B				Y	Y			Y	Y		X	X				X	X		(Yes)
CALCIUM NITRATE FERTILIZER			C																			
CARBORUNDUM			C																			

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
CASTOR BEANS [1]	9	2969	B			Nm	Y	Y			Y			X	X				X	X		Yes
CEMENT			C																			
CEMENT CLINKERS			C																			
CEMENT COPPER			A																			
CHAMOTTE			C																			
CHARCOAL	MHB		B																			Yes
CHOPPED RUBBER AND PLASTIC INSULATION			C																			Yes [2]
CHROME PELLETS			C																			
CHROMITE ORE			C																			
CLAY			C																			
CLINKER ASH, WET	MHB		A and B					Y														
COAL	MHB		A and B	See Table 4.3																		
COAL SLURRY			A			N																
COAL TAR PITCH	MHB		B					Y														
COARSE CHOPPED TYRES			C																			Yes [2]
COARSE IRON AND STEEL SLAG AND ITS MIXTURE			C																			
COKE			C																			
COKE BREEZE			A																			
COLEMANITE			C																			
COPPER CONCENTRATE			A																			
COPPER GRANULES			C																			
COPPER MATTE			C																			
COPRA (dry)	4.2	1363	B	A	Y	Nm								X	X				X	X	X	Yes
CRUSHED CARBON ANODES			C																			
CRYOLITE			C																			
DIAMMONIUM PHOSPHATE (D.A.P.)			C																			
DIRECT REDUCED IRON, (A) Briquettes, hot-moulded	MHB		B	F	Y	Nm, Sp				IICT2												
DIRECT REDUCED IRON, (B) Lumps, pellets, cold moulded briquettes 3	MHB		B	F	Y					IICT2												Yes
DIRECT REDUCED IRON, (C) (By product fines) 3	MHB		B	F	Y		Y			IICT2												Yes
DOLOMITE			C																			
DISTILLERS DRIED GRAINS WITH SOLUBLES			C																			
FELSPAR LUMP			C																			
FERROCHROME			C																			

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
FERROCHROME, exothermic			C																			
FERROMANGANESE			C																			
FERRONICKEL			C																			
FERROPHOSPHORUS (including briquettes)	MHB		B			ML, Sa	Y			IICT1												
FERROSILICON with 30% or more but less than 90% silicon (including briquettes)	4.3	1408	B	A, G	Y	ML,Sa	Y	Y	F,N	IICT1						X	X	X	X	X	X	
FERROSILICON 25% to 30% silicon, or 90% or more with silicon (including briquettes)	MHB		B	G	Y	ML,Sa	Y		F,N	IICT1												
FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS	4.2	2793	B	A	Y		Y							X	X				X	X	X	Yes
FERROUS SULPHATE HEPTAHYDRATE			C																			
FERTILIZERS WITHOUT NITRATES (non-hazardous)			C																			
FISH (IN BULK)			A																			
FISHMEAL (FISHSCRAP), STABILIZED	9	2216	B			Nm	Y							X	X				X	X		Yes
FLUORSPAR	MHB		A and B																			
FLY ASH, DRY			C																			
FLY ASH, WET			A																			
GRAIN SCREENING PELLETS			C																			
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)	MHB		B				Y	Y														
GRANULAR RERROUS SULPHATE			C																			
GRANULATED SLAG			C																			
GRANULATE TYPE RUBBER			C																			Yes [2]
GYPSUM			C																			
GYPSUM GRANULATED			C																			
ILMENITE (ROCK)			C																			
ILMENITE (UPGRADED)			A																			
ILMENITE CLAY			A																			
ILMENITE SAND			C																			
IRON ORE			C																			
IRON ORE PELLETS			C																			
IRON OXIDE, SPENT or IRON SPONGE, SPENT	4.2	1376	B	A		Nm	Y	Y		IIAT2	Y			X	X				X	X	X	Yes
IRONSTONE			C																			
LABRADORITE			C																			
LEAD NITRATE	5.1	1469	B			N	Y	Y			Y	Y		X	X				X	X		(Yes)
LEAD ORE			C																			

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
LIME (UNSLAKED)	MHB		B																			
LIMESTONE			C																			
LINTED COTTON SEED	MHB		B				Y															Yes
MAGNESIA (DEADBURNED)			C																			
MAGNESIA (UNSLAKED)	MHB		B																			
MAGNESITE, natural			C																			
MAGNESIUM NITRATE	5.1	1474	B				Y	Y			Y	Y		X	X				X	X		(Yes)
MAGNESIUM SULPHATE FERTILIZERS			C																			
MANGANESE ORE			C																			
MARBLE CHIPS			C																			
METAL SULPHIDE CONCENTRATES	MHB		A and B				Y															Yes [9]
Mineral Concentrates			A																			
MONOAMMONIUM PHOSPHATE (M.A.P.)			C																			
NICKEL ORE			A																			
PEANUTS (in shell)			C	A																		
PEAT MOSS	MHB		A and B			Nm																
PEBBLES (sea)			C																			
PELLETS (concentrates)			C																			
PERLITE ROCK			C																			
PETROLEUM COKE, calcined or uncalcined	MHB		B				Y	Y			Y											
PHOSPHATE, defluorinated			C																			
PHOSPHATE ROCK, calcined			C																			
PHOSPHATE ROCK, uncalcined			C																			
PIG IRON			C																			
PITCH PRILL	MHB		B			Nm	Y	Y			Y											
POTASH			C																			
POTASSIUM CHLORIDE			C																			
POTASSIUM NITRATE	5.1	1486	B				Y	Y			Y	Y		X	X				X	X		(Yes)
POTASSIUM SULPHATE			C																			
PUMICE			C																			
PYRITE (containing copper and iron)			C																			
PYRITES, CALCINED (Calcined Pyrites)	MHB		A and B																			
PYROPHYLLITE			C																			
QUARTZ			C																			
QUARTZITE			C																			
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-1)	7	2912	B				Y	Y														

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-1)	7	2913	B				Y	Y														
RASORITE (ANHYDROUS)			C																			
RUTILE SAND			C																			
SALT			C																			
SALT CAKE			C																			
SALT ROCK			C																			
SAND			C	A [4]																		
SAND, HEAVY MINERAL			A																			
SAWDUST	MHB		B			Nm																Yes
SCRAP METAL			C			Nm																
SEED CAKE Type (a)	4.2	1386	B	A			Y							X	X				X	X	X	Yes
SEED CAKE Type (b)	4.2	1386	B	A [5]	Y	Nm, Sp	Y			IIAT3 [5]				X	X	X[5]	X[5]	X[5]	X	X	X	Yes
SEED CAKE	4.2	2217	B	A	Y	Nm, Sp	Y			IIAT3				X	X	X	X	X	X	X	X	Yes
SEED CAKE (non-hazardous)			C																			
SILICOMANGANESE (low carbon) (with known hazard profile or known to evolve gases) (with silicon content of 25% or more)	MHB		B		Y	M, Sa	Y			IICT1												
SILICON SLAG			C																			
SODA ASH			C																			
SODIUM NITRATE	5.1	1498	B				Y	Y			Y	Y		X	X				X	X		(Yes)
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	5.1	1499	B				Y	Y			Y	Y		X	X				X	X		(Yes)
SOLIDIFIED FUELS RECYCLED FROM PAPER AND PLASTICS	MHB		B					Y														Yes
STAINLESS STEEL GRINDING DUST			C																			
STONE CHIPPINGS			C																			
SUGAR			C																			
SULPHATE OF POTASH AND MAGNESIUM			C																			
SULPHUR (crushed lump and coarse grained) [6]	4.1	1350	B	A	Y	Nm, Sp	Y			IIAT4				X	X	X		X[8]	X	X	X	
SULPHUR (formed, solid)			C			Nm																
SUPERPHOSPHATE			C																			
SUPERPHOSPHATE (triple, granular)			C																			
TACONITE PELLETS			C																			
TALC			C																			
TANKAGE	MHB		B				Y															Yes
TAPIOCA			C																			
UREA			C																			
VANADIUM ORE	MHB		B				Y															

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
VERMICULITE			C																			
WHITE QUARTZ			C																			
WOODCHIPS	MHB		B				Y															Yes [7]
WOOD PELLETS	MHB		B				Y															Yes
WOOD PRODUCTS - GENERAL	MHB		B			Nm	Y															
WOOD TORREFIED	MHB		B				Y															Yes
ZINC ASHES	4.3	1435	B	A	Y	ML,Sa	Y	Y		IICT2						X	X	X	X	X	X	
ZIRCON SAND			C																			

The contents of each column in the Table 4.1 are as follows.

1. CARGOES (column “a”)

   Bulk Cargo Shipping Names are expressed in capital letters and identifies a bulk cargo during transport by sea.

2. IMO class (column “b”)

   Group B cargoes are categorized into the following classes.

   Class 4.1 : Flammable solids
   Class 4.2 : Substances liable to spontaneous combustion
   Class 4.3 : Substances which, in contact with water, emit flammable gases
   Class 5.1 : Oxidizing substances (agents)
   Class 7 : Radioactive materials
   Class 9 : Miscellaneous dangerous substances and articles
   MHB : Materials which may possess chemical hazards when transported in bulk other than materials classified as dangerous goods in the IMDG Code.

3. UN No. (column “c”)

   This is a 4-digit number assigned to a particular dangerous substance included in the dangerous substance list (approximately 3,000 items) within the United Nations Recommendations on the Transport of Dangerous Goods issued by the Unite Nations Committee of Experts on the Transport of Dangerous Goods.

4. Group (column “d”)

   A : Group A consists of cargoes which may liquefy if shipped at moisture content in excess of their transportable moisture limit.
   B : Group B consists of cargoes which possess a chemical hazard which could give rise to a dangerous situation on a ship.
   C : Group C consists of cargoes which are neither liable to liquefy (Group A) nor to possess chemical hazards (Group B).

5. Stowage (column “e”)

   A : Bulkheads to the engine room are to be insulated to A-60 standard.
   F : Boundaries of components are to be resistant to fire and passage of water.
   G : Bulkheads to the engine room are to be of gastight.

6. NO SMOKING sign (column “f”)

   Y : “NO SMOKING” signs are to be posted on decks and in areas adjacent to cargo compartments.

7. Ventilation (column “g”)

   N : Natural ventilation system is to be provided for cargo holds.
   Nm : Natural or mechanical ventilation system is to be provided for cargo holds.
   M : Mechanical ventilation system is to be provided for cargo holds.
   ML : At least two mechanical ventilation fans are to be provided for cargo holds. The total ventilation is to be at least six air changes per hour. Ventilation openings are to comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure.
   Sa : Ventilation fans are to be safe for use in a flammable atmosphere.
   Sp : Spark-arresting screens (wire mesh guards with max. 13mm X 13mm) are to be fitted to ventilation openings.

8. SCBA (column “h”)

   Y : Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.

9. Protective clothing resistant to chemical attack (column “i”)

   Y : Four sets of protective clothing which consists of a pair of gloves, boots, a protective clothing and helmet with goggles are to be additionally provided.

10. Bilge line (column “j”)

    F : In case where bilge lines are led to machinery space, bilge line is to be isolated either by fitting a blank flange or by a closed lockable valve.

N : A notice is to be placed adjacent to the valve warning against opening without the master's permission.

11. Electrical equipment (column "k")

Not suitable explosion protected type electrical equipment are to be disconnected (by removal of links in the system, other than fuses) from the power source at a point external to the space.

IIAT2: Electrical equipment having an explosion protection grade of IIAT2 or upwards are considered as suitable explosion protected type electrical equipment.

IIAT3: Electrical equipment having an explosion protection grade of IIAT3 or upwards are considered as suitable explosion protected type electrical equipment.

IIAT4: Electrical equipment having an explosion protection grade of IIAT4 or upwards are considered as suitable explosion protected type electrical equipment.

IICT1: Electrical equipment having an explosion protection grade of IICT1 or upwards are considered as suitable explosion protected type electrical equipment.

IICT2: Electrical equipment having an explosion protection grade of IICT2 or upwards are considered as suitable explosion protected type electrical equipment.

IS: Intrinsically safe type electrical equipment are considered as suitable explosion protected type electrical equipment.

12. Dual purpose nozzles (column "l")

Y : Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).

13. 4 jets of water (column "m")

Y : The quantity of water delivered is to be capable of supplying four nozzles at pressure as specified in SOLAS regulation and being trained on any part of the cargo space when empty.

14. Heating Arrangement (column "n")

N1 : The means to disconnect heating arrangements for the tank(s) are to be provided.

N2 : The means to monitor and control the temperature of boundary between the tank(s) and cargo space loading the cargo so that it does not exceed 50°C are to be provided.

15. Requirements of SOLAS Reg.II-2/54.2 (Reg.II-2/19.3 on or after 2000 amendments) (column "n" ～ "u")

X : Applicable.

16. FFEA (SOLAS Reg.II-2/10.7.1.3) (column "v")

Yes : Fixed CO2 fire extinguishing system for cargo holds are required by SOLAS Reg.II-2/10.7.1.3.

(Yes): Fixed gas fire-extinguishing system is ineffective and for which a fixed fire-extinguishing system giving equivalent protection shall be available. According to the Unified Interpretation of IMO, water supplies defined in SOLAS Reg.II-2/19.3.1.2 are considered as the alternative of a fixed gas fire-extinguishing system in cargo spaces.

General notes:

- For the detailed requirements of the IMSBC Code, the relevant part of the Code should be referred to.
- The application of the requirements of SOLAS Reg.II-2/54.2 or 19.3 is shown just for ready reference. For the detailed requirements, the relevant part of the SOLAS should be referred to.
- Blank columns mean "Not applicable".

Notes :

1. CASTER MEAL, CASTER POMACE and CASTER FLAKE shall not be carried in bulk.
2. For the planned voyage not exceeding 5 days from the commencement of loading to the completion of discharge, the vessel may be exempted from the requirements of FFEA.
3. Consideration shall be given to providing the vessel with the means to top up the cargo spaces with additional supplies of inert gas taking into account the duration of the voyage. The ship's fixed CO2 fire extinguishing system shall not be used for this purpose.
4. Only applicable to Industrial sand coated with resin.
5. Only applicable to Seedcake containing solvent extractions only.
6. Fine grained sulphur (flowers of sulphur) shall not be transported in bulk.
7. With moisture content of 15% or more, the vessel may be exempted from the requirements of FFEA.
8. Only suitable wire mesh guards are required.
9. Except Metal Sulphide Concentrate considered as presenting a low fire-risk.

Table 1.2

IMSBC Code - Initial Checklist (2014 Edition)
(for cargoes other than COAL and BROWN COAL BRIQUETTES)

Columns	Requirements	Results
e	Stowage: ☐ Bulkheads to the engine room are to be insulated to A-60 standard. ☐ Boundaries of components are to be resistant to fire and passage of water. ☐ Bulkheads to the engine room are to be of gastight.	☐
f	NO SMOKING sign: ☐ ”NO SMOKING” signs are to be posted on decks and in areas adjacent to cargo compartment.	☐
g	Ventilation: ☐ Natural ventilation systems are to be provided for cargo holds. ☐ Natural or mechanical ventilation systems are to be provided for cargo holds. ☐ Mechanical ventilation systems are to be provided for cargo holds. ☐ At least two mechanical ventilation fans are to be provided for cargo holds. The total ventilation are to be at least six air changes per hour. Ventilation openings are to comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure. ☐ Ventilation fans are to be safe for use in a flammable atmosphere. ☐ Spark-arresting screens (wire mesh guards with max. 13mm×13mm) are to be fitted to ventilation openings.	☐
h	SCBA: ☐ Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.	☐
i	Protective clothing resistant to chemical attack: ☐ Four sets of protective clothing which consists of boots, gloves, coverall and headgear are to be additionally provided.	☐
j	Bilge line: ☐ In case where bilge lines are led to machinery space, bilge lines are to be isolated either by fitting a blank flange or by a closed lockable valve. ☐ A notice is to be placed adjacent to the valve warning against opening without the master’s permission.	☐
k	Electrical equipment: ☐ Electrical equipment fitted in the cargo holds, including motors of mechanical ventilation systems, are to be of safe type having an explosion protection grade/type stated below or upwards. Not suitable explosion protected type electrical equipment are to be capable of being positively isolated from outside of the spaces. (☐ IIAT2 / ☐ IIAT3 / ☐ IIAT4 / ☐ IICT1 / ☐ IICT2 / ☐ IICT3 / ☐ IICT4 / ☐ Intrinsically safe type)	☐
l	Dual purpose nozzles ☐ Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).	☐
m	4 jets of water ☐ The quantity of water delivered is to be capable of supplying four nozzles at pressure as specified in SOLAS regulation and being trained on any part of the cargo space when empty.	☐
n	Heating arrangement ☐ The means to disconnect heating arrangement for the tank(s) are to be provided (spectacle flange). ☐ The means to monitor and control the temperature so that it does not exceed 50℃are to be provided.	☐

Note: 1. The requirements checked are applied to the vessel.
2. The results of confirmation survey on board have been shown in the right columns. For the requirements complied with, the columns should be checked. For the requirements not applied, “NA” should be entered in the columns.

Ship’s name :
Class number :
Date :

( )
Surveyor

Table 1.3

IMSBC Code - Initial Checklist (2014 Edition)
(for COAL and BROWN COAL BRIQUETTES)

1	Boundaries of cargo spaces are to be resistant to fire and liquids.	☐
2	Electrical equipment fitted in the cargo holds are to be of safe type having an explosion protection grade of IIAT4 or upwards. Not suitable explosion protected type electrical equipment are to be capable of being positively isolated from outside of the spaces and have the enclosure having a protection degree of IP55 or upwards, and caution plates to ensure isolation of electrical equipment are to be provided.	☐
3	Suitable means for measuring following gases, etc. in cargo spaces without entry into such spaces are to be provided. Methane Oxygen Carbon monoxide pH value Temperature(0 - 100ºC)	☐
4(*)	Two sets of self-contained breathing apparatus are to be provided. (Note: The apparatus required by SOLAS Reg.II-2/17(00E) or Reg.II-2/10(00N) may be used for this purpose)	☐
5	“No Smoking" signs are to be posted in conspicuous places.	☐
6(*)	Natural ventilation system is to be provided for cargo spaces and air holes should be provided at the upper part of web plates of longitudinal and transverse girders fitted to deck plates with appropriate spacing. Note: Air holes should not be located at any part that may be subject to stress concentration.	☐
7	Natural or mechanical ventilation systems are to be provided for adjacent enclosed working spaces, such as store rooms, carpenter's shops, passage ways, tunnels. In the case of mechanical ventilation, only the equipment which is safe type for use in an explosive atmosphere can be used in cargo area.	☐
8	Two sampling holes per hold, one on the port side and one on the starboard side of the hatch cover or upper parts of hatch coamings are to be provided with threaded stub and sealing cap.	☐

Note: 1. The items marked with (*) are not applicable to brown coal (lignite) briquettes.

2. The results of confirmation survey on board have been shown in the right columns. For the requirements complied with, the columns should be checked. For the requirements not applied, “NA” should be entered in the columns.

Ship’s name :

Class number :

Date :

( )

Surveyor

Table 1.4

Documents/information to be submitted

Required items (1) Column of Table 4.2 (1)	(2)	(2) Regulation of SOLAS II-2/54 (II-2/19)	Documents/information to be submitted The meanings of "H" and "L" are specified under this table.	
e	2.8 (3.8)	"A-60" class insulation of bulkheads between the cargo space and engine room	H	Drawings of fire protection construction Type and manufacture of the material
f	--	"NO SMOKING" signs	L	Number and locations of the signs
g	--	Natural ventilation.	H	Drawings of the system
	2.4.3 (3.4.3)	Natural or mechanical ventilation.		
	--	Mechanical ventilation		
	2.4.1 (3.4.1)	Mechanical ventilation (total ventilation at least six air changes per hour)	H	Drawings of the system Calculations of the air changes
	2.4.2 (3.4.2)	Non-sparking fans	L	Specifications
		Spark-arresting screens (wire mesh guard)	L	Specifications
h	2.6.2 (3.6.2)	Self-contained breathing apparatus	L	Type, manufacturer and specifications
i	2.6.1 (3.6.1)	Protective clothing resistant to chemicals		
j	--	Stop valves and blank flanges on the bilge lines on machinery space side	H	Drawing of bilge lines
k	2.2 (3.2)	Electrical equipment to be of safe type.	H	Arrangement and wiring diagram of electrical equipment fitted in the space including grade of each equipment.
l	-	Jet/spray dual purpose type nozzle	L	Type, manufacturer and specifications
m	2.1.2 (3.1.2)	Capacity of fire pumps to supply four nozzles	H	Fire main piping diagram with arrangement of hydrant and pump capacity.
n	-	Heating arrangement	H	Drawing of heating arrangement. Drawing of the system for measuring and monitoring temperature.

H: To be submitted to Material and Equipment department for examination by the Head office.

L: To be submitted to the local office for their checking.

Table 1.5

Documents/information to be submitted for COAL/BROWN COAL BRIQUETTES

Requirements on Table 2.3	Documents/information to be submitted The meaning of "L" is specified under this table	
Boundaries of cargo spaces should be resistant to fire and liquids.	—	—
Electrical cables and components situated in cargo spaces and adjacent spaces should be free from defects and safe for use in explosive atmosphere or positively isolated.	L	Arrangement and wiring diagram of electrical equipment fitted in the space including grade of each equipment, such as IIAT4.
Appropriate instruments for measuring followings into cargo spaces without entry into such spaces should be provided. Methane Oxygen Carbon monoxide pH value Temperature(0 - 100ºC)	L	Type, manufacturer and specifications
Two sets of self-contained breathing apparatus to be provided.	L	Type, manufacturer and specifications
"No Smoking" sign and "No naked flames" sign should be posted in conspicuous places.	L	Number and locations of the signs
Natural surface ventilation should be provided for cargo spaces.	L	Drawings of the ventilation systems Arrangement of air holes
Natural or mechanical ventilation should be provided for enclosed working spaces, such as store rooms, carpenter's shops, passage ways, tunnels. Mechanical ventilation, if used, should be of safe type for use in explosive atmosphere.	L	Drawings of the system
Two sampling holes per hold, one on each side of the hatch cover should be provided with threaded stub and sealing cap.	L	Drawings of the system

L: To be submitted to the local office for their checking.

Table G1 - Cargoes newly added and Cargoes for which requirements on construction/equipment are added (IMSBC Code(2014 Edition))

Revised points are shown in red.

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
AMMONIUM NITRATE	5.1	1942	B	A	Yes		Yes	Yes		IS		Yes	N1	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE-BASED FERTILIZER	5.1	2067	B	A	Yes		Yes	Yes		IS		Yes	N1 or N2	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE-BASED FERTILIZER	5.1	2071	B	A	Yes		Yes	Yes		IS		Yes	N1 or N2	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE-BASED FERTILIZER (non-hazardous)			C	A	Yes		Yes	Yes		IS		Yes	N1 or N2									
ALUMINA HYDRATE	MHB		A and B				Yes	Yes														
ALUMINIUM SMELTING / REMELTING BY-PRODUCTS, PROCESSED	MHB		A and B			ML																Yes
CLINKER ASH, WET	MHB		A and B					Yes														

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
COAL TAR PITCH	MHB		B					Yes														
COARSE IRON AND STEEL SLAG AND ITS MIXTURE			C																			
CRUSHED CARBON ANODES			C																			
GRAIN SCREENING PELLETS			C																			
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)	MHB		B				Yes	Yes														
GYPSUM GRANULATED			C																			
ILMENITE (ROCK)			C																			
ILMENITE (UPGRADED)			A																			
METAL SULPHIDE CONCENTRATES	MHB		A and B				Yes															Yes[9]
NICKEL ORE			A																			
SAND, HEAVY MINERAL			A																			
SILICON SLAG			C																			
SOLIDIFIED FUELS RECYCLED FROM PAPER AND			B					Yes														Yes

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg.II-2/54.2 or 19.3								FFEA (SOLAS Reg.II-2/10.7.1.3)
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	
PLASTICS																						
WOOD TORREFIED			B				Yes															Yes

The contents of each column in the Table G1 are as follows.

1. CARGOES (column “a”)
   Bulk Cargo Shipping Names are expressed in capital letters and identifies a bulk cargo during transport by sea.

2. IMO class (column “b”)
   Group B cargoes are categorized into the following classes.
   - Class 4.1 : Flammable solids
   - Class 4.2 : Substances liable to spontaneous combustion
   - Class 4.3 : Substances which, in contact with water, emit flammable gases
   - Class 5.1 : Oxidizing substances (agents)
   - Class 7 : Radioactive materials
   - Class 9 : Miscellaneous dangerous substances and articles
   - MHB : Materials which may possess chemical hazards when transported in bulk other than materials classified as dangerous goods in the IMDG Code.

3. UN No. (column “c”)
   This is a 4-digit number assigned to a particular dangerous substance included in the dangerous substance list (approximately 3,000 items) within the United Nations Recommendations on the Transport of Dangerous Goods issued by the Unite Nations Committee of Experts on the Transport of Dangerous Goods.

4. Group (column “d”)
   - A : Group A consists of cargoes which may liquefy if shipped at moisture content in excess of their transportable moisture limit.
   - B : Group B consists of cargoes which possess a chemical hazard which could give rise to a dangerous situation on a ship.
   - C : Group C consists of cargoes which are neither liable to liquefy (Group A) nor to possess chemical hazards (Group B).

5. Stowage (column “e”)
   - A : Bulkheads to the engine room are to be insulated to A-60 standard.
   - F : Boundaries of components are to be resistant to fire and passage of water.
   - G : Bulkheads to the engine room are to be of gastight.

6. NO SMOKING sign (column “f”)
   - Yes : “NO SMOKING” signs are to be posted on decks and in areas adjacent to cargo compartments.

7. Ventilation (column “g”)
   - N : Natural ventilation system is to be provided for cargo holds.
   - Nm : Natural or mechanical ventilation system is to be provided for cargo holds.
   - M : Mechanical ventilation system is to be provided for cargo holds.
   - ML : At least two mechanical ventilation fans are to be provided for cargo holds. The total ventilation is to be at least six air changes per hour. Ventilation openings are to comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure.
   - Sa : Ventilation fans are to be safe for use in a flammable atmosphere.
   - Sp : Spark-arresting screens (wire mesh guards with max. 13mm X 13mm) are to be fitted to ventilation openings.

8. SCBA (column “h”)
   - Yes : Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.

9. Protective clothing resistant to chemical attack (column “i”)
   - Yes : Four sets of protective clothing which consists of a pair of gloves, boots, a protective clothing and helmet with goggles are to be additionally provided.

10. Bilge line (column “j”)
    - F : In case where bilge lines are led to machinery space, bilge line is to be isolated either by fitting a blank flange or by a closed lockable valve.
    - N : A notice is to be placed adjacent to the valve warning against opening without the master’s permission.

11. Electrical equipment (column "k")

Not suitable explosion protected type electrical equipment are to be disconnected (by removal of links in the system, other than fuses) from the power source at a point external to the space.

IIAT2: Electrical equipment having an explosion protection grade of IIAT2 or upwards are considered as suitable explosion protected type electrical equipment.

IIAT3: Electrical equipment having an explosion protection grade of IIAT3 or upwards are considered as suitable explosion protected type electrical equipment.

IIAT4: Electrical equipment having an explosion protection grade of IIAT4 or upwards are considered as suitable explosion protected type electrical equipment.

IICT1: Electrical equipment having an explosion protection grade of IICT1 or upwards are considered as suitable explosion protected type electrical equipment.

IICT2: Electrical equipment having an explosion protection grade of IICT2 or upwards are considered as suitable explosion protected type electrical equipment.

IS: Intrinsically safe type electrical equipment are considered as suitable explosion protected type electrical equipment.

12. Dual purpose nozzles (column "l")

Yes : Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).

13. 4 jets of water (column "m")

Yes : The quantity of water delivered is to be capable of supplying four nozzles at pressure as specified in SOLAS regulation and being trained on any part of the cargo space when empty.

14. Heating Arrangement (column "n")

N1 : The means to disconnect heating arrangements for the tank(s) are to be provided.

N2 : The means to monitor and control the temperature of boundary between the tank(s) and cargo space loading the cargo so that it does not exceed 50°C are to be provided.

15. Requirements of SOLAS Reg.II-2/54.2 (Reg.II-2/19.3 on or after 2000 amendments) (column "o" ～ "v")

X : Applicable.

16. FFEA (SOLAS Reg.II-2/10.7.1.3) (column "w")

Yes : Fixed CO2 fire extinguishing system for cargo holds are required by SOLAS Reg.II-2/10.7.1.3.

(Yes): Fixed gas fire-extinguishing system is ineffective and for which a fixed fire-extinguishing system giving equivalent protection shall be available. According to the Unified Interpretation of IMO, water supplies defined in SOLAS Reg.II-2/19.3.1.2 are considered as the alternative of a fixed gas fire-extinguishing system in cargo spaces.

General notes:

- For the detailed requirements of the IMSBC Code, the relevant part of the Code should be referred to.
- The application of the requirements of SOLAS Reg.II-2/54.2 or 19.3 is shown just for ready reference. For the detailed requirements, the relevant part of the SOLAS should be referred to.
- Blank columns mean "Not applicable".

Notes :

1. CASTER MEAL, CASTER POMACE and CASTER FLAKE shall not be carried in bulk.
2. For the planned voyage not exceeding 5 days from the commencement of loading to the completion of discharge, the vessel may be exempted from the requirements of FFEA.
3. Consideration shall be given to providing the vessel with the means to top up the cargo spaces with additional supplies of inert gas taking into account the duration of the voyage. The ship's fixed CO2 fire extinguishing system shall not be used for this purpose.
4. Only applicable to Industrial sand coated with resin.
5. Only applicable to Seedcake containing solvent extractions only.
6. Fine grained sulphur (flowers of sulphur) shall not be transported in bulk.
7. With moisture content of 15% or more, the vessel may be exempted from the requirements of FFEA.
8. Only suitable wire mesh guards are required.
9. Except Metal Sulphide Concentrate considered as presenting a low fire-risk.

ANNEX

TABLE 1

LIST OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM MAY BE EXEMPTED

1 Cargoes including, but not limited to, those listed in regulation II-2/10:

Ore
Coal (COAL and BROWN COAL BRIQUETTES)
Grain
Unseasoned timber

2 Cargoes listed in the International Maritime Solid Bulk Cargoes (IMSBC) Code, which are not combustible or constitute a low fire-risk, as follows:

.1 all cargoes not categorized into Group B in the IMSBC Code; and

.2 the following cargoes categorized into Group B in the IMSBC Code:

ALUMINA HYDRATE
ALUMINIUM SMELTING BY-PRODUCTS, UN 3170
(Both the names ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS are in use as proper shipping name)
ALUMINIUM FERROSILICON POWDER, UN 1395
ALUMINIUM SILICON POWDER, UNCOATED, UN 1398
CALCINED PYRITES (Pyritic ash)
CLINKER ASH, WET
COAL TAR PITCH
DIRECT REDUCED IRON (A) Briquettes, hot moulded
FERROPHOSPHORUS (including briquettes)
FERROSILICON, with more than 30% but less than 90% silicon, UN 1408
FERROSILICON, with 25% to 30% silicon, or 90% or more silicon
FLUORSPAR (calcium fluoride)
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)
LIME (UNSLAKED)
LOGS
MAGNESIA (UNSLAKED)
PEAT MOSS
PETROLEUM COKE*
PITCH PRILL
PULP WOOD
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY MATERIAL (LSA-1), UN 2912 (non-fissile or fissile – excepted)
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECT(S) (SCO-I or SCO-II), UN 2913 (non-fissile or fissile – excepted)

* When loaded and transported under the provisions of the IMSBC Code.

ROUNDWOOD
SAW LOGS
SILICOMANGANESE
SULPHUR, UN 1350
TIMBER
VANADIUM ORE
WOODCHIPS, with moisture content of 15% or more
ZINC ASHES, UN 1435

.3 Cargoes assigned to the following generic Group B shipping schedules when they do not exhibit any self-heating, flammability, or water-reactive flammability hazards in accordance with the MHB tests and classification criteria contained in the Code:

METAL SULPHIDE CONCENTRATES

3 Solid bulk cargoes which are not listed in the IMSBC Code, provided that:

.1 they are assessed in accordance with section 1.3 of the Code;

.2 they do not present hazards of Group B as defined in the Code; and

.3 a certificate has been provided by the competent authority of the port of loading to the master in accordance with 1.3.2 of the Code.

TABLE 2

LIST OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM IS INEFFECTIVE AND FOR WHICH A FIRE-EXTINGUISHING SYSTEM GIVING EQUIVALENT PROTECTION SHALL BE AVAILABLE

The following cargoes categorized into Group B of the IMSBC Code:

ALUMINIUM NITRATE, UN 1438
AMMONIUM NITRATE, UN 1942 (with not more than 0.2% total combustible material, including any organic substance, calculated as carbon to the exclusion of any other added substance)
AMMONIUM NITRATE BASED FERTILIZER, UN 2067
AMMONIUM NITRATE BASED FERTILIZER, UN 2071
BARIUM NITRATE, UN 1446
CALCIUM NITRATE, UN 1454
LEAD NITRATE, UN 1469
MAGNESIUM NITRATE, UN 1474
POTASSIUM NITRATE, UN 1486
SODIUM NITRATE, UN 1498
SODIUM NITRATE AND POTASSIUM NITRATE, MIXTURE, UN 1499