標題

IMSBC コード第 7 次改正の適用

ClassNK
テクニカル
インフォメーション

No. TEC-1314
発行日 2023 年 12 月 20 日

各位

IMSBC コード 07-23 改正の適用について、以下の通りお知らせいたします。
本テクニカルインフォメーションでは IMO Resolution MSC.539(107)による IMSBC コード 07-23 改正を"IMSBC コード第 7 次改正"と呼称いたします。
なお、テクニカルインフォメーション No.TEC-1283 にてお知らせしておりました IMSBC コード第 6 次改正の効力は、2024 年 12 月 31 日までとなっております。そのため 2022 年 12 月 21 日発行のテクニカルインフォメーション No.TEC-1283 は、2024 年 12 月 31 日で絶版といたします。

1. IMSBC コード第 7 次改正の適用
   2023 年 6 月に IMO で開催された第 107 回海上安全委員会(MSC107)において、個々の貨物に対する要件を見直した IMSBC コード第 7 次改正が採択されました。本改正は、2025 年 1 月 1 日以降に固体貨物をばら積みする全ての船舶に対して、強制適用となります。

2. 新規追加貨物
   IMSBC コード第 7 次改正では、IMSBC コード Appendix 1 貨物個別スケジュールに追加、変更された貨物があります。添付 1.の「Table 1 - 新規追加貨物及び構造・設備要件（IMSBC コード第 7 次改正）」をご参照ください。これらの貨物を運送する場合は、IMSBC コード適合書の書き換えが必要となります。

3. IMSBC コード適合書の申込方法
   IMSBC コード第 7 次改正に対する適合書の申込方法は、添付 2.の「IMSBC コード第 7 次改正適合書の申込手引き」をご参照ください。

4. IMSBC コード第 7 次改正の任意適用
   IMSBC コード第 7 次改正は、移行期間として 2024 年 1 月 1 日から早期に適用することが認められています。原則として IMSBC コード第 7 次改正に従う適合書を発行いたします。
   (1) 添付 1.の Table 1 に記載される Group A and B 貨物及び Group B 貨物が該当する要件を満足する場合、IMSBC コード第 7 次改正に基づいた適合書を発行いたします。発行にあたっては船上検査が必要となる場合もございます。検査の要否は弊会材料艤装部までお問い合わせください。

（次頁に続く）

(2) 第 7 次改正による新規追加貨物を運送する場合には、IMSBC コード適合書の書換えのために申込みされるようお願いします。書き換えていない現有の適合書は期限まで有効ですが、第 7 次改正による新規貨物は同適合書の対象外となりますので注意願います。弊会では、コードの強制適用が開始される 2025 年 1 月 1 日より前に第 7 次改正の適合書に書換えすることを推奨しています。

(3) DIRECT REDUCED IRON(D)(By-product fines with moisture content of at least 2%)(Group A and B, MHB)（以降、"DRI(D)"）が新たに追加されました。脱炭素化社会の動きの一つとして、主に電気炉を用いた製鋼工程に使用される直接還元鉄(DIRECT REDUCED IRON)は需要の拡大が見込まれています。DRI(D)は、DRI(C)と同様にDRI(A)又は DRI(B)の製造プロセスの副産物として生成されます。貨物から発生する水素の体積濃度を 1%(25%LEL)未満に維持するために、DRI(D)を運送する場合は機械式通風装置による換気が求められます。当該貨物の通風装置に関しては、別紙を参照ください。

5. 固定式ガス消火装置(FFEA)免除証書の書換え

(1) IMSBC コード第 7 次改正及び MSC.1/Circ.1395/Rev.6（添付 3.参照）によって、FFEA の搭載が免除できる貨物に以下の貨物が追加されました。

- ELECTRIC ARC FURNACE DUST, PELLETIZED

上記貨物の積載の際、FFEA 免除証書の貨物リストに追加記載するため、免除証書の書換えが必要となります。IMSBCコード適合書を第 7 次改正として書き換える場合には、免除証書も同時に書き換える必要があります。

(2) 弊会発行の免除証書を所持している船舶の場合、弊会から上記貨物を記載した免除証書を発行いたします。

(3) パナマ籍船の場合、弊会による仮免除証書を発行後、30 日以内に船主又は管理会社から直接パナマ政府へ免除証書発行の申請が必要となります。

(4) リベリア籍船の場合、弊会による仮免除証書を発行後、弊会よりリベリア政府へ免除証書発行の申込みを行います。

(5) パナマ政府及びリベリア政府以外の旗国政府発行の免除証書を所持する場合、旗国毎に発行手順が異なるため、当該旗国の取り扱いがご不明な場合は担当検査支部又は弊会船級部までお問い合わせください。

（次頁に続く）

なお、本件に関してご不明な点は、以下の部署にお問い合わせください。

[IMSBC コード適合書、その他関連のお問い合わせ]
一般財団法人 日本海事協会 （ClassNK）
本部 管理センター別館 材料艤装部
住所: 東京都千代田区紀尾井町 3-3（郵便番号 102-0094）
Tel.: 03-5226-2020
Fax: 03-5226-2057
E-mail: eqd@classnk.or.jp

[固定式ガス消火装置免除証書についてのお問い合わせ]
一般財団法人 日本海事協会 （ClassNK）
本部 情報センター 船級部
住所: 千葉県千葉市緑区大野台 1-8-5（郵便番号 267-0056）
Tel.: 043-294-6469
Fax: 043-294-5449
E-mail: cld@classnk.or.jp

添付:

1. Table 1 - 新規追加貨物及び構造・設備要件（IMSBC コード第 7 次改正）
2. IMSBC コード第 7 次改正適合書の申込手引き
3. LIST OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM MAY BE EXEMPTED - MSC.1/Circ.1395/Rev.6
4. 別紙 DIRECT REDUCED IRON(D)の通風装置

Table 1 - 新規追加貨物及び構造・設備要件(IMSBC コード第 7 次改正)

改正箇所を朱字で示す

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	
BARYTE, FLOTATION CHEMICAL GRADE			A																			
BROWN FUSED ALUMINA			C																			
CRUSHED GRANODIORITE FINES			A																			
DIRECT REDUCED IRON (D) (By-product fines with moisture content of at least 2%)	MHB		A and B	F	Y	ML1 or M[1], MSp, Sa, Sp	Y			IICT2												Yes
DUNITE			C																			
DUNITE FINES			A																			
ELECTRIC ARC FURNACE DUST, PELLETIZED	MHB		A and B				Y	Y														
FISH MEAL (FISH SCRAP), STABILIZED	~~9~~ MHB	~~2216~~	B			Nm	Y							~~X~~	~~X~~				~~X~~	~~X~~		Yes
GROUND GRANULATED BLAST FURNACE SLAG POWDER			A																			
MAGNESITE FINES			A																			
POTASSIUM NITRATE			C																			
SODIUM NITRATE			C																			
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE			C																			

The contents of each column in Table 1 are the same as in Table 2.1

IMSBC コード 第 7 次改正 適合書の申込手引き

0101　一般

IMSBC コードでは、固体ばら積み貨物は、以下のように分類されています。

(1) 液状化もしくは動的分離することのあるばら積み貨物（Group A）
(2) 化学的危険性を有するばら積み貨物（Group B）
(3) 前者のいずれにも該当しないばら積み貨物（Group C）

この手引きでは、これらを各々に「Group A 貨物」、「Group B 貨物」及び「Group C 貨物」と呼びます。

0102　個々の貨物に対する構造・設備要件

-1. 運送貨物の種類に関わらず、弊会により承認されたローディングマニュアル及び復原性資料の備付けが要求されます。
-2. Group A 貨物において含水量が運送許容水分値を越える場合、専用船又は特別な設備（原則として貨物の移動を制限するための可般式隔壁または固定式縦通隔壁）による運送が要求されます。詳しくは、IMSBC コード Section 7 を参照してください。
-3. 貨物に応じた船舶の構造・設備要件は、Table 2.1 及び Table 2.2 を参照してください。なお、COAL 及び BROWN COAL BRIQUETTES については、Table 2.3 を参照してください。

注 1.1　同コードには消防及び人身保護のための構造・設備の他、船上業務（荷役、運送条件や荷役操作）に関する注意及び各貨物の性状に関する情報が掲載されています。
注 1.2　Table 2.1 には、便宜のために改正 SOLAS II-2 章の関係要件（危険物の運送）の概要も一緒に記載しています。

0103　申込み

-1. 申込者（船舶所有者若しくはその代理者または船舶建造者）は、少なくとも次の事項を記載した申込書を、船上検査に先立ち、弊会支部・事務所または材料艤装部に提出してください。（0104 参照）
(1) 対象貨物（Group A 貨物、Group C 貨物、又は Group B 貨物）。Group B 貨物を含む場合、対象貨物リストの提出が必要となります。
(2) 受検予定日及び場所、並びに現地代理店（就航船の場合）
(3) 提出書類の一覧（申込書と一緒に提出されるもの及び別途提出されるもの）
-2. 対象貨物に危険物（国連番号（UN No.）が付与されているもの）が含まれている場合、危険物運搬船適合証書発行（船級検査及び条約検査）の申込みも必要となります。

0104　書類の提出

-1. 積載貨物に Group B 貨物が含まれている場合、Table 2.4（COAL 及び BROWN COAL BRIQUETTES 以外）及び/または Table 2.5（COAL 及び BROWN COAL BRIQUETTES）に掲げる書類各 1 部を弊会支部・事務所または材料艤装部に提出する必要があります。ただし、就航船の場合であって、特定の構造・設備について、要件への適合の確認が船上検査のみで行えると弊会が判断した場合、書類の提出・審査が省略できる場合もあります。書類の提出・審査の要否に関しては、材料艤装部までお問い合わせ下さい。
-2. 積載貨物に含水量の制限を条件としない Group A 貨物が含まれている場合、関連の船体構造図、復原性計算書及びその他本会が必要と認める書類を材料艤装部に各 1 部提出する必要があります。

0105　IMSBC コード適合書の発行

必要に応じ材料艤装部で書類審査を行い、弊会支部・事務所で船上検査を行った後、適合書を発行いたします。

0106　適合書の更新・書換え

-1. Table 1 に記載される貨物を IMSBC コード適合書に追加・変更する場合の書換え（コード改正により追加・変更されたもの）

(1) 追加の要件がない（既に該当する設備や要件等を弊会が確認している要件を含む）場合、材料艤装部へ検査申込書に加えて貨物リストを提出してください。

(2) 追加の要件がある（船上検査を要する）場合は、検査を担当する弊会支部・事務所に検査申込書に加えて貨物リストを提出してください。

-2. 有効期限を迎えた際の IMSBC コード適合書の更新
検査を担当する弊会支部・事務所に検査申込書を直接提出してください。貨物リストを変更しない場合でも、船上検査は必要となります。

-3. 旗国政府又は船名変更に伴う IMSBC コード適合書の書換え
検査を担当する弊会支部・事務所に検査申込書を直接提出してください。貨物リストを変更しない場合でも、船上検査は必要となります。

0107　適合書の有効期限

-1. IMSBC コード適合書は、原則として船級証書の有効期限と同一です。更新検査時は 5 年延長した有効期限となります。

-2. IMSBC コード改正による適合書を書き換える場合には、書き換える前の有効期限を引き継ぎます。

-3. IMSBC コード適合書をコード改正に伴って書き換えない場合であっても、現有の適合書期限まで有効ですが、コード改正により新規追加または変更された貨物は同適合書の対象外となりますので注意願います。弊会では、強制適用が開始される前に適合書を書き換えることを推奨しています。第 7 次改正では 2025 年 1 月 1 日より前に書き換えを手続きするようお願いします。

Table 2.1

Requirements of construction and equipment for individual cargoes
under the provisions of the IMSBC Code 7th Amendment 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								
														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	FFEA (SOLAS Reg.II-2/10.7.1.3)
ALFALFA			C																			
ALUMINA			C																			
ALUMINA, CALCINED			C																			
ALUMINA HYDRATE	MHB		A and B				Y	Y														
ALUMINA SILICA			C																			
ALUMINA SILICA, pellets			C																			
ALUMINIUM FERROSILICON POWDER	4.3	1395	B	A, G	Y	ML2, Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM FLUORIDE			A																			
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	ML2, 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	ML2, Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM SMELTING / REMELTING BY-PRODUCTS, PROCESSED	MHB		A and B	G	Y	ML1			F													Yes
AMMONIUM NITRATE	5.1	1942	B	A	Y		Y	Y		ST		Y	N1	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER	5.1	2067	B	A	Y		Y	Y		ST		Y	N1 or N2	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER	9	2071	B	A	Y		Y	Y		ST		Y	N1 or N2	X	X	X		X[8]	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER			C		Y					ST												
AMMONIUM NITRATE BASED FERTILIZER MHB	MHB		B	A	Y		Y	Y		ST		Y	N1 or N2									(Yes)
AMMONIUM SULPHATE			C																			
AMORPHOUS SODIUM SILICATE LUMPS	MHB		B																			
ANTIMONY ORE AND RESIDUE			C																			
BARIUM NITRATE	5.1	1446	B			Nm	Y	Y			Y	Y		X	X				X	X		(Yes)
BARYTE, FLOTATION CHEMICAL GRADE			A																			
BARYTES			C																			
BAUXITE			C																			
BAUXITE FINES			A																			
BIOSLUDGE			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								
														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	FFEA (SOLAS Reg.II-2/10.7.1.3)
BORAX (PENTAHYDRATE CRUDE)			C																			
BORAX, ANHYDROUS (crude or refined)			C																			
BORIC ACID	MHB		B																			
BROWN COAL BRIQUETTES	MHB		B	See Table 2.3																		
BROWN FUSED ALUMINA			C																			
BRUCITE			C																			
CALCIUM FLUORIDE CALCIUM SULPHATE, CALCIUM CARBONATE MIXTURE			A																			
CALCIUM NITRATE	5.1	1454	B				Y	Y			Y	Y		X	X				X	X		(Yes)
CALCIUM NITRATE FERTILIZER			C																			
CARBORUNDUM			C																			
CASTOR BEANS [1]	9	2969	B			Nm	Y	Y			Y			X	X				X	X		Yes
CEMENT			C																			
CEMENT CLINKERS			C																			
CHAMOTTE			C																			
CHARCOAL	MHB		B																			Yes
CHEMICAL GYPSUM			A																			
CHLORITE			C																			
CHOPPED RUBBER AND PLASTIC INSULATION			C																			Yes [2]
CHROME PELLETS			C																			
CHROMITE ORE			C																			
CLAM SHELL			C																			
CLAY			C																			
CLINKER ASH	MHB		A and B					Y														
COAL	MHB		A and B	See Table 2.3																		
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 GRANULES			C																			
COPPER MATTE			C																			
COPPER SLAG			A																			

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	
COPRA (dry)	4.2	1363	B	A	Y	Nm								X	X				X	X	X	Yes
CRUSHED CARBON ANODES			C																			
CRUSHED GRANODIORITE FINES			A																			
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
DIRECT REDUCED IRON (D) (By-product fines with moisture content of at least 2%)	MHB		A and B	F	Y	ML1 or M[4], MSp, Sa, Sp	Y			IICT2												Yes
DISTILLERS DRIED GRAINS WITH SOLUBLES			C																			
DOLOMITE			C																			
DUNITE			C																			
DUNITE FINES			A																			
ELECTRIC ARC FURNACE DUST, PELLETIZED	MHB		A and B				Y	Y														
FELSPAR LUMP			C																			
FERROCHROME			C																			
FERROCHROME, exothermic			C																			
FERROMANGANESE			C																			
FERRONICKEL			C																			
FERRONICKEL SLAG (granulated)			C																			
FERROPHOSPHORUS (including briquettes)	MHB		B			ML1, Sa	Y			IICT1												
FERROSILICON with 30% or more but less than 90% silicon (including briquettes)	4.3	1408	B	A, G	Y	ML2, Sa	Y	Y	F, N	IICT1						X	X	X	X	X	X	
FERROSILICON with at least 25% but less than 30% silicon, or 90% or more silicon	MHB		B	G	Y	ML2, 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																			

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	
FISH MEAL (FISH SCRAP), STABILIZED	~~9~~ MHB	~~2216~~	B			Nm	Y							~~X~~	~~X~~				~~X~~	~~X~~		Yes
FLUE DUST, CONTAINING LEAD AND ZINC	MHB		A and B				Y	Y														
FLUORSPAR	MHB		A and B																			
FLY ASH, DRY			C																			
FLY ASH, WET			A																			
FOAM GLASS GRAVEL			C																			
GLASS CULLET			C																			
GRAIN SCREENING PELLETS			C																			
GRANULAR FERROUS SULPHATE			C																			
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)	MHB		B				Y	Y														
GRANULATED SLAG			C																			
GRANULATED TYRE RUBBER			C																			Yes [2]
GROUND GRANULATED BLAST FURNACE SLAG POWDER			A																			
GYPSUM			C																			
GYPSUM GRANULATED			C																			
ILMENITE CLAY			A																			
ILMENITE (ROCK)			C																			
ILMENITE SAND			A																			
ILMENITE (UPGRADED)			A																			
IRON AND STEEL SLAG AND ITS MIXTURE			A																			
IRON ORE			C																			
IRON ORE FINES			A																			
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
IRON OXIDE TECHNICAL			A																			
IRON SINTER			C																			
IRON SMELTING BY-PRODUCTS			C																			
IRONSTONE			C																			
LABRADORITE			C																			
LEACH RESIDUE CONTAINING LEAD	MHB		A and B				Y	Y														
LEAD NITRATE	5.1	1469	B			N	Y	Y			Y	Y		X	X				X	X		(Yes)
LEAD ORE			C																			
LIME (UNSLAKED)	MHB		B																			

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	
LIMESTONE			C																			
LINTED COTTON SEED	MHB		B				Y															Yes
MAGNESIA (DEADBURNED)			C																			
MAGNESIA (UNSLAKED)	MHB		B																			
MAGNESITE, natural			C																			
MAGNESITE FINES			A																			
MAGNESIUM NITRATE	5.1	1474	B				Y	Y			Y	Y		X	X				X	X		(Yes)
MAGNESIUM SULPHATE FERTILIZERS			C																			
MANGANESE COMPONENT FERROALLOY SLAG			C																			
MANGANESE ORE			C																			
MANGANESE ORE FINES			A																			
MARBLE CHIPS			C																			
MATTE CONTAINING COPPER AND LEAD	MHB		B				Y	Y														
METAL SULPHIDE CONCENTRATES	MHB		A and B				Y															Yes [9]
METAL SULPHIDE CONCENTRATES, CORROSIVE	8	1759	A and B				Y	Y											Y	Y		Yes[9]
METAL SULPHIDE CONCENTRATES, SELF-HEATING	4.2	3190	A and B	A			Y	Y						X	X				X	X	X	Yes
MINERAL CONCENTRATES			A																			
MONOAMMONIUM PHOSPHATE (M.A.P.)			C																			
MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATING	MHB		B				Y	Y														
MONOCALCIUMPHOSPHATE (MCP)	MHB		A and B				Y	Y														
NICKEL ORE			A																			
OLIVINE GRANULAR AND GRAVEL AGGREGATE PRODUCTS			C																			
OLIVINE SAND			A																			
PEANUTS (in shell)			C																			
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																			

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	
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 NITRATE			C																			
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-I)	7	2912	B				Y	Y														
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I)	7	2913	B				Y	Y														
RASORITE (ANHYDROUS)			C																			
RUTILE SAND			C																			
SALT			C																			
SALT CAKE			C																			
SALT ROCK			C																			
SAND			C																			
SAND, HEAVY MINERAL			A																			
SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)	7	2912	A and B				Y	Y														
SAWDUST	MHB		B			Nm																Yes
SCALE GENERATED FROM THE IRON AND STEEL MAKING PROCESS			A																			
SCRAP METAL			C			Nm																
SEED CAKE (a)	4.2	1386	B	A			Y							X	X				X	X	X	Yes
SEED CAKE (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 CAKES AND OTHER RESIDUES OF PROCESSED OILY VEGETABLES	MHB		B			Nm, Sp	Y			IIAT3												Yes
SEED CAKES AND OTHER RESIDUES OF PROCESSED OILY VEGETABLES			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	
SILICOMANGANESE (carbo-thermic)			C																			
SILICOMANGANESE (low carbon)	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			C																			
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	5.1	1499	B				Y	Y			Y	Y		X	X				X	X		(Yes)
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE			C																			
SOLIDIFIED FUELS RECYCLED FROM PAPER AND PLASTICS	MHB		B					Y														Yes
SPODUMENE (UPGRADED)			A																			
STAINLESS STEEL GRINDING DUST			C																			
STONE CHIPPINGS			C																			
SUGAR			C																			
SUGARCANE BIOMASS PELLETS	MHB		B				Y															Yes
SULPHATE OF POTASH AND MAGNESIUM			C																			
SULPHUR (formed, solid)			C			Nm																
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	
SUPERPHOSPHATE			C																			
SUPERPHOSPHATE (triple, granular)	MHB		B				Y	Y														
SYNTHETIC CALCIUM FLUORIDE			A																			
SYNTHETIC SILICON DIOXIDE			A																			
TACONITE PELLETS			C																			
TALC			C																			
TANKAGE	MHB		B				Y															Yes
TAPIOCA			C																			
TITANOMAGNETITE SAND			A																			
UREA			C																			
VANADIUM ORE	MHB		B				Y															
VERMICULITE			C																			
WHITE QUARTZ			C																			
WOODCHIPS	MHB		B				Y															Yes [7]
WOOD PELLETS CONTAINING ADDITIVES AND/OR BINDERS	MHB		B				Y															Yes
WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS	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	
WOOD PRODUCTS - GENERAL	MHB		B			Nm	Y															
WOOD TORREFIED	MHB		B				Y															Yes
ZINC ASHES	4.3	1435	B	A	Y	ML2, Sa	Y	Y		IICT2						X	X	X	X	X	X	
ZINC OXIDE ENRICHED FLUE DUST	MHB		A and B				Y	Y														
ZINC SLAG			A																			
ZIRCON KYANITE CONCENTRATE			A																			
ZIRCON SAND			C																			

The contents of each column in Table 2.1 are as follows.

1. CARGOES (column “a”)
   Bulk Cargo Shipping Name is expressed in capital letters and identifies 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 8 : Corrosive solid substances
   - 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 United Nations Committee of Experts on the Transport of Dangerous Goods.

4. Group (column “d”)
   - A : Group A consists of cargoes which possess a hazard due to moisture that may result in liquefaction or dynamic separation if shipped at a 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 classified as Group A nor Group B.

5. Stowage (column “e”)
   - A : Bulkheads to the engine room are to be insulated to A-60 standard or to be isolated by the spaces (e.g. FOT, DOT, Void Space).
   - 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 is to be provided for cargo holds.
   - Nm : Natural ventilation or mechanical ventilation fan is to be provided for cargo holds.
   - M : Mechanical ventilation fan is to be provided for cargo holds.
   - ML2 : 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. The height of coaming is to be equal to or more than the regulated height (Position 1: 4.5 m, Position 2: 2.3 m).
   - ML1 : Mechanical ventilation fan is to be provided for cargo holds. Ventilation openings are to comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure. The height of coaming is to be equal to or more than the regulated height (Position 1: 4.5 m, Position 2: 2.3 m).
   - MSp : Two spare whole ventilation sets are to be provided, or two spare parts (motor, impeller, bearing, etc.) of mechanical ventilation fans are to be provided onboard.
   - Sa : Mechanical 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 sets of 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 consist of a pair of gloves, boots, protective clothing and helmet with goggles are to be additionally provided.

10. Bilge line (column “j”)
   F : In case bilge lines are led to machinery space, bilge line is to be isolated by fitting a blank flange or 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 is 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 is considered as suitable explosion protected type electrical equipment.
   IIAT3: Electrical equipment having an explosion protection grade of IIAT3 or upwards is considered as suitable explosion protected type electrical equipment.
   IIAT4: Electrical equipment having an explosion protection grade of IIAT4 or upwards is considered as suitable explosion protected type electrical equipment.
   IICT1: Electrical equipment having an explosion protection grade of IICT1 or upwards is considered as suitable explosion protected type electrical equipment.
   IICT2: Electrical equipment having an explosion protection grade of IICT2 or upwards is considered as suitable explosion protected type electrical equipment.
   ST: IICT6 or IS
   IICT6: Electrical equipment having an explosion protection grade of IICT6 or upwards is considered as suitable explosion protected type electrical equipment.
   IS: Intrinsically safe type electrical equipment is considered 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 the 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 gas fire-extinguishing system for cargo holds is 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 to 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.

The relevant part of the SOLAS should be referred to for the detailed requirements.

- Blank columns mean “Not applicable”.

Notes :

1. CASTOR MEAL, CASTOR POMACE and CASTOR 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 ship may be exempted from the requirements of FFEA.
3. Consideration shall be given to providing the ship 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. Mechanical ventilation is to be available at all times. Measures to be adopted to avoid a situation whereby the cargo hold mechanical ventilation system could not be used due to rough seas.
5. Only applicable to Seedcake containing solvent extractions only.
6. Fine grained sulphur (flowers of sulphur) shall not be transported in bulk.
7. With a moisture content of 15% or more, the ship may be exempted from the requirements of FFEA.
8. Only suitable wire mesh guards are required.
9. Except Metal Sulphide Concentrates considered as presenting a low fire risk.

Table 2.2

IMSBC Code - Initial Checklist
(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 or to be isolated by the spaces (e.g. FOT, DOT, Void Space). ☐ 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 is to be provided for cargo holds. ☐ Natural ventilation or mechanical ventilation fan is to be provided for cargo holds. ☐ Mechanical ventilation fan is to be provided for cargo holds. ☐ 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. The height of coaming is to be equal to or more than the regulated height (Position 1: 4.5 m, Position 2: 2.3 m). ☐ Mechanical ventilation fan is to be provided for cargo holds. Ventilation openings are to comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure. The height of coaming is to be equal to or more than the regulated height (Position 1: 4.5 m, Position 2: 2.3 m). ☐ Two spare whole ventilation sets are to be provided, or two spare parts (motor, impeller, bearing, etc.) of mechanical ventilation fans are to be provided onboard. ☐ 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 / ☐ Safe type (IICT6 or 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.	☐
w	FFEA ☐ Fixed gas fire-extinguishing system is to be provided for cargo holds.	☐

Note: 1. The requirements checked are applied to the ship.
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.

Table 2.3

IMSBC Code - Initial Checklist
(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, passageways, 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.

Table 2.4

Documents/information to be submitted

Required items (1) Column of Table 2.2 (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
	--	The height of ventilation openings	H	Drawings of the system
	--	Spare of mechanical ventilation fan	H	Drawings of the system
	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.
w	-	Fixed gas fire-extinguishing system for cargo hold (FFEA)	H	Drawing of the system

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 2.5

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, passageways, and tunnels. Mechanical ventilation, if used, should be of safe type for use in an 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.

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1395/Rev.6
26 June 2023

LISTS OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM MAY BE EXEMPTED OR FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM IS INEFFECTIVE

1 The Maritime Safety Committee, at its sixty-fourth session (5 to 9 December 1994), agreed that there was a need to provide Administrations with guidelines regarding the provisions of SOLAS regulation II-2/10 concerning exemptions from the requirements for fire-extinguishing systems.

2 Consequently, the Committee approved MSC/Circ.671 whereby it agreed to:

.1 a list of solid bulk cargoes, for which a fixed gas fire-extinguishing system may be exempted (table 1) and recommended Member States to take into account the information contained in table 1 when granting exemptions under the provisions of SOLAS regulation II-2/10.7.1.4; and

.2 a list of solid bulk cargoes for which a fixed gas fire-extinguishing system is ineffective (table 2), and recommended that cargo spaces in a ship engaged in the carriage of cargoes listed in table 2 be provided with a fire-extinguishing system which provides equivalent protection. The Committee also agreed that Administrations should take account of the provisions of SOLAS regulation II-2/19.3.1 when determining suitable requirements for an equivalent fire-extinguishing system.

3 The Maritime Safety Committee, at its seventy-ninth session (1 to 10 December 2004), reviewed the above-mentioned tables and approved MSC/Circ.1146. The Committee decided that the annexed tables should be periodically reviewed and invited Member States to provide the Organization, when granting exemptions to ships for the carriage of cargoes not included in table 1, with data on the non-combustibility or fire risk properties of such cargoes. Member States were also requested to provide the Organization, when equivalent fire-extinguishing systems are required for the agreed carriage of cargoes not included in table 2, with data on the inefficiency of fixed gas fire-extinguishing systems for such cargoes.

4 The Maritime Safety Committee, at its eighty-ninth session (11 to 20 May 2011), noting the mandatory status of the IMSBC Code, reviewed the aforementioned lists of solid bulk cargoes to align certain names in the lists with those in the recent version of the IMDG Code and approved MSC.1/Circ.1395 on *Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective*, superseding MSC/Circ.1146. The Maritime Safety Committee, at its ninety-second session (12 to 21 June 2013), approved a revision of MSC.1/Circ.1395 (MSC.1/Circ.1395/Rev.1).

5 The Maritime Safety Committee, at its ninety-fifth session (3 to 12 June 2015), considering a proposal by the Sub-Committee on Carriage of Cargoes and Containers, at its first session, approved a revision of tables 1 and 2 of MSC.1/Circ.1395/Rev.1 (MSC.1/Circ.1395/Rev.2).

6 The Maritime Safety Committee, at its ninety-eighth session (7 to 16 June 2017), considering a proposal by the Sub-Committee on Carriage of Cargoes and Containers, at its third session, approved a revision of tables 1 and 2 of MSC.1/Circ.1395/Rev.2 (MSC.1/Circ.1395/Rev.3).

7 The Maritime Safety Committee, at its 101st session (5 to 14 June 2019), considering a proposal by the Sub-Committee on Carriage of Cargoes and Containers, at its third session, approved a revision of tables 1 and 2 of MSC.1/Circ.1395/Rev.3 (MSC.1/Circ.1395/Rev.4).

8 The Maritime Safety Committee, at its 105th session (20 to 29 April 2022), considering the proposal by the Sub-Committee on Carriage of Cargoes and Containers, at its seventh session, approved a revision of tables 1 and 2 of MSC.1/Circ.1395/Rev.4.

9 The Maritime Safety Committee, at its 107th session (31 May to 9 June 2023), considering the proposal by the Sub-Committee on Carriage of Cargoes and Containers, at its eighth session, approved a revision of MSC.1/Circ.1395/Rev.5, as set out in the annex.

10 The purpose of this circular is to provide guidance to Administrations. However, Administrations are not prevented from granting exemptions for cargoes not included in table 1 or imposing any conditions when granting such exemptions under the provisions of SOLAS regulation II-2/10.7.1.4.

11 This circular supersedes MSC.1/Circ.1395/Rev.5.

***

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 SOLAS 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;

.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
AMORPHOUS SODIUM SILICATE LUMPS
BORIC ACID
CLINKER ASH
COAL TAR PITCH
DIRECT REDUCED IRON (A) Briquettes, hot-moulded
ELECTRIC ARC FURNACE DUST, PELLETIZED
FERROPHOSPHORUS (including briquettes)
FERROSILICON UN 1408, with 30% or more but less than 90% silicon (including briquettes)
FERROSILICON, with at least 25% but less than 30% silicon, or 90% or more silicon
FLUE DUST, CONTAINING LEAD AND ZINC
FLUORSPAR
GRANULATED NICKEL MATTE (less than 2% moisture content)
LEACH RESIDUE CONTAINING LEAD
LIME (UNSLAKED)
LOGS
MAGNESIA (UNSLAKED)
MATTE CONTAINING COPPER AND LEAD
MONOCALCIUMPHOSPHATE (MCP)
MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATING
PEAT MOSS

PETROLEUM COKE (calcined or uncalcined)*
PITCH PRILL
PULP WOOD
PYRITES, CALCINED (calcined pyrites)
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I), non-fissile or fissile-excepted UN 2912
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I), non-fissile or fissile-excepted UN 2913
ROUNDWOOD
SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I) UN 2912
SAW LOGS
SILICOMANGANESE (low carbon)
SULPHUR, UN 1350 (crushed lump and coarse grained)
SUPERPHOSPHATE (triple, granular)
TIMBER
VANADIUM ORE
WOODCHIPS, with moisture content of 15% or more
WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS
ZINC ASHES UN 1435
ZINC OXIDE ENRICHED FLUE DUST

.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
METAL SULPHIDE CONCENTRATES, CORROSIVE UN 1759

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.

* When loaded and transported under the provisions of the IMSBC 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 are 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 MHB
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

別紙

DIRECT REDUCED IRON(D)の通風装置

IMSBC コード第 7 次改正で追加された DRI(D)を運送する場合は、貨物から発生する水素の体積濃度を 1%（25%LEL）未満に維持するために、機械式通風装置による換気が求められる。通風装置に関わる主な設備要件を以下に示す。

1. 積載場所となる貨物倉内を常時換気するために、通風装置の開口は Load Line 条約附属書 I 第 19 規則(3）に規定された高さ（Position 1: 4.5m、Position 2：2.3m）に設置すること。又は、荒天によって機械式通風装置が使用できない状況を回避できる措置を講じること。

   DRI(D)に適用となる通風装置の設備要件は、次の ML1 又は M となる。
   ML1: Mechanical ventilation fan is to be provided for cargo holds. Ventilation openings are to comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure. The height of coaming is to be equal to or more than the regulated height (Position 1: 4.5 m, Position 2: 2.3 m).
   M: Mechanical ventilation fan is to be provided for cargo holds.

   機械式通風装置が上記の要件 M のみを満たす場合は、貨物リストに記載された DRI(D)に対して下記 Note が付される。
   Mechanical ventilation is to be available at all times. Measures to be adopted to avoid a situation whereby the cargo hold mechanical ventilation system could not be used due to rough seas.

2. 機械式通風装置の数量については、IMSBC コードに明記されていない。弊会では、機械式通風装置(排気式)により十分な換気が確保されるなら、少なくとも 1 組の通風装置で差し支えないと考える。
   同様に IMSBC コードで常時換気が求められる Group B (MHB)貨物についても、少なくとも 1 組の機械式通風装置を設置することに改めた。
   - ALUMINIUM SMELTING / REMELTING BY-PRODUCTS, PROCESSED
   - FERROPHOSPHORUS (including BRIQUETTES)

3. DRI(D)を運送する場合は、機械式通風装置の予備 2 組を搭載することが求められる。装置全体の予備だけではなく、予備品（モーター・インペラ・ベアリング等）だけでも

認められると考えている。いずれの手段であっても、船員による修理が可能であり、通風装置の稼働が維持できること。(NK 暫定解釈)
※この予備について統一解釈が採択された場合には、改めてお知らせします。

4. 機械式通風装置は、危険な環境(爆発性の雰囲気)での使用について証明された防爆形 certified safe type のものであること。

5. 通風装置のダクトの開放甲板上にある開口には、保護金網(13mm x 13mm メッシュを超えない)を取り付けること。

通風装置が要求される貨物を運送については、Table2.4 に従い関連図面を提出する必要があります。ご留意ください。

＜DRI(D) Ventilation：貨物個別スケジュールーの抜粋＞
During the voyage, mechanical surface ventilation shall be provided in each cargo hold carrying this cargo, in order to keep the hydrogen concentration less than 1% by volume (25% LEL). The mechanical surface ventilation system shall be of a certified safe type for use in an explosive atmosphere, capable of ventilating the cargo surface, as stipulated in 3.5 of this Code. Suitable wire mesh guards shall be fitted over inlet and outlet ventilator openings.

Mechanical surface ventilation shall be available at all times, either by compliance with the Load Line Convention, Annex I, regulation 19(3), or by adopting measures to avoid a situation whereby the cargo hold mechanical ventilation system could not be used due to rough seas, such measures to be in keeping with good seamanlike practices as for similar cargoes emitting intermittent combustible gases and advice from weather routing service providers.

Two spare sets of ventilation equipment of a certified safe type for use in an explosive atmosphere shall be available on board the ship during the voyage. A crew member or other person with the ability to install the spare fans shall be available on board throughout the voyage. In addition, natural ventilation shall be provided in enclosed cargo holds intended for the carriage of this cargo.