

標題

IMSBC コード(2015 Edition)の適用について

ClassNK

テクニカル インフォメーション

No. TEC-1057
発行日 2015年12月3日

各位

IMSBC コード(2015 Edition)の適用について、以下の通りお知らせ致します。

本テクニカル・インフォメーションでは IMO Resolution MSC.393(95)を取り込んだ改正 IMSBC コードを"IMSBC コード(2015 Edition)"と呼称致します。

1. IMSBC コードの改正

IMO の第 95 回海上安全委員会(MSC95)において、個々の貨物に対する要件を見直した改正 IMSBC コード"IMSBC コード(2015 Edition)"が採択されました。なお、現行の IMSBC コードは "IMSBC コード(2014 Edition)"となります。

IMSBC コード(2015 Edition)は、2017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. 適合鑑定書の申込方法

IMSBC コード(2015 Edition)に対する適合鑑定書の申込方法は添付 1.の「IMSBC コード(2015 Edition)適合鑑定書の申込手引き」をご参照ください。

3. 新規追加貨物

IMSBC コード(2015 Edition)では、IMSBC コード(2014 Edition)の貨物リストから新たに追加された貨物がありますのでご注意ください。これらの貨物については、添付 2.の「Table G1 - 新規追加貨物及び構造・設備要件(IMSBC コード(2015 Edition))」をご参照ください。

4. IMSBC コード(2015 Edition)の任意適用

2016年1月1日から、ご要望に応じて IMSBC コード(2015 Edition)に従う鑑定書を発行致します。

添付 2.の Table G1 に記載される Group A and B 及び B 貨物については、Table G1 の要件を満足する場合、IMSBC コード(2015 Edition)に基づいた鑑定書を発行致します。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。検査の必要の有無は弊社材料艙装部までお問い合わせください。

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NOTES:

- ClassNK テクニカル・インフォメーションは、あくまで最新情報の提供のみを目的として発行しています。
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- バックナンバーは ClassNK インターネット・ホームページ(URL: www.classnk.or.jp)においてご覧いただけます。

5. 固定式ガス消火装置(FFEA)免除証書の手換え

- (1) IMSBC コード(2015 Edition)及び MSC.1/Circ.1395/Rev.2(添付 3.参照)によって以下の Group B の貨物を積載する際は FFEA が免除できるよう新たに規定されました。

-AMORPHOUS SODIUM SILICATE LUMPS

-BORIC ACID

-CLINKER ASH

-WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS

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、免除証書の手換えが必要となります。

- (2) 弊会発行の免除証書をお持ちの場合、弊会において上記貨物を記載した免除証書を発行致します。
- (3) パナマ籍船の場合、弊会において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、弊会において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お持ちの場合、直接旗国政府に免除証書発行のお申込みをしていただく必要がございます。

(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 コード適合鑑定書、その他関連のお問い合わせ]

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[固定式ガス消火装置免除証書についてのお問い合わせ]

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添付:

1. IMSBC コード(2015 Edition)適合鑑定書の申込手引き
2. Table G1 - 新規追加貨物及び構造・設備要件(IMSBC コード(2015 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.2

IMSBC コード (2015 Edition) 適合鑑定書の申込手引き

0101 一般

IMSBC コードでは、貨物は、液化化することのあるばら積み物質 (Group A)、化学的危険性を有するばら積み物質 (Group B) 及び前者のいずれにも該当しないばら積み物質 (Group C) に分類されています。この手引きでは、各々を「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. 運送貨物の種類に拘わらず、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 貨物について含水量の制限を条件としない場合、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が要求されます。詳しくは、IMSBC コード Section7 をご参照ください。
- 3. COAL 及び BROWN COAL BRIQUETTES 以外の貨物の要件については、Table 1.1 及び Table 1.2 をご参照ください。
COAL 及び BROWN COAL BRIQUETTES の要件については、Table 1.3 をご参照ください。

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、オペレーション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 1.1 には、便宜のために改正 SOLAS74(及び 2000 年の SOLAS 改正)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・事務所または材料艙装部にご提出ください。(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) 提出書類のリスト (申込書と一緒に提出されるもののリスト及び別途提出されるもののリスト)
- 2. 対象貨物に危険物が含まれている場合、危険物運送適合証書 (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 1.4 (COAL 及び BROWN COAL BRIQUETTES 以外) 及びまたは Table 1.5 (COAL 及び BROWN COAL BRIQUETTES) に掲げる書類各 1 部を材料艙装部又は弊会支部・事務所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ございます。書類の提出・審査の要否に関しては、材料艙装部までお問い合わせください。
- 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艙装部に各 3 部提出する必要があります。

0105 鑑定書の発行

必要に応じ材料艀装部で書類審査を行い、弊社支部・事務所で船上検査を行った後、鑑定書を発行いたします。

0106 鑑定書の更新・書換え

-1. Table G1 に記載される Group A and B 及び B 貨物に関する IMSBC コード適合鑑定書の書換え

追加の要件がない(船上検査を要しない)場合、材料艀装部へ検査申込書に加えて貨物リストをご提出ください。追加の要件がある(船上検査を要する)場合は、検査を担当する弊社支部・事務所に検査申込書に加えて貨物リストを直接ご提出ください。

-2. 有効期限切れに伴う IMSBC コード適合鑑定書の更新

材料艀装部における書類審査は必要ございません。検査を担当する弊社支部・事務所に検査申込書を直接ご提出ください。

-3. 旗国政府変更に伴う IMSBC コード適合鑑定書の書換え

材料艀装部における書類審査は必要ございません。検査を担当する弊社支部・事務所に検査申込書を直接ご提出ください。

-4. 船名変更に伴う IMSBC コード適合鑑定書の書換え

材料艀装部における書類審査並びに船上検査は必要ございません。検査を担当する弊社支部・事務所に検査申込書を直接ご提出ください。



The contents of each column in the Table 1.1 are as follows.

1. MATERIALS (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 United 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
(for cargoes other than COAL and BROWN COAL BRIQUETTES)**

Columns	Requirements	Results
e	Stowage: <input type="checkbox"/> Bulkheads to the engine room are to be insulated to A-60 standard. <input type="checkbox"/> Boundaries of components are to be resistant to fire and passage of water. <input type="checkbox"/> Bulkheads to the engine room are to be of gastight.	<input type="checkbox"/>
f	NO SMOKING sign: <input type="checkbox"/> "NO SMOKING" signs are to be posted on decks and in areas adjacent to cargo compartment.	<input type="checkbox"/>
g	Ventilation: <input type="checkbox"/> Natural ventilation systems are to be provided for cargo holds. <input type="checkbox"/> Natural or mechanical ventilation systems are to be provided for cargo holds. <input type="checkbox"/> Mechanical ventilation systems are to be provided for cargo holds. <input type="checkbox"/> 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. <input type="checkbox"/> Ventilation fans are to be safe for use in a flammable atmosphere. <input type="checkbox"/> Spark-arresting screens (wire mesh guards with max. 13mm×13mm) are to be fitted to ventilation openings.	<input type="checkbox"/>
h	SCBA: <input type="checkbox"/> Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.	<input type="checkbox"/>
i	Protective clothing resistant to chemical attack: <input type="checkbox"/> Four sets of protective clothing which consists of boots, gloves, coverall and headgear are to be additionally provided.	<input type="checkbox"/>
j	Bilge line: <input type="checkbox"/> 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. <input type="checkbox"/> A notice is to be placed adjacent to the valve warning against opening without the master's permission.	<input type="checkbox"/>
k	Electrical equipment: <input type="checkbox"/> 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. (<input type="checkbox"/> IIAT2 / <input type="checkbox"/> IIAT3 / <input type="checkbox"/> IIAT4 / <input type="checkbox"/> IICT1 / <input type="checkbox"/> IICT2 / <input type="checkbox"/> IICT3 / <input type="checkbox"/> IICT4 / <input type="checkbox"/> Intrinsically safe type)	<input type="checkbox"/>
l	Dual purpose nozzles <input type="checkbox"/> Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).	<input type="checkbox"/>
m	4 jets of water <input type="checkbox"/> 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.	<input type="checkbox"/>
n	Heating arrangement <input type="checkbox"/> The means to disconnect heating arrangement for the tank(s) are to be provided (spectacle flange). <input type="checkbox"/> The means to monitor and control the temperature so that it does not exceed 50°C are to be provided.	<input type="checkbox"/>

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
(for COAL and BROWN COAL BRIQUETTES)**

1	Boundaries of cargo spaces are to be resistant to fire and liquids.	<input type="checkbox"/>
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.	<input type="checkbox"/>
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 - 100°C)	<input type="checkbox"/>
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)	<input type="checkbox"/>
5	"No Smoking" signs are to be posted in conspicuous places.	<input type="checkbox"/>
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.	<input type="checkbox"/>
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.	<input type="checkbox"/>
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.	<input type="checkbox"/>

- 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 (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.	
(1)	(2)		
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 Spark-arresting screens (wire mesh guard)	L Specifications 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 - 100°C)	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 - 新規追加貨物及び構造・設備要件(IMSBC コード(2015 Edition))

改正箇所を赤字で示す

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	
ALUMINIUM FLUORIDE			A																			
AMORPHOUS SODIUM SILICATE LUMPS	MHB		B																			
BORIC ACID	MHB		B																			
CHEMICAL GYPSUM			A																			
CLINKER ASH, WET	MHB		A and B					Y														
COPPER SLAG			A																			
GLASS CULLET			C																			
IRON AND STEEL SLAG AND ITS MIXTURE			A																			
IRON ORE FINES			A																			
IRON OXIDE TECHNICAL			A																			
IRON SINTER			C																			
MANGANESE COMPONENT FERROALLOY SLAG			C																			
MANGANESE ORE FINES			A																			
SCALE GENERATED FROM THE IRON AND STEEL MAKING PROCESS			A																			
SPODUMENE (UPGRADED)			A																			
WOOD PELLETS CONTAINING ADDITIVES AND/OR BINDERS	MHB		B				Y															Yes
WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS	MHB		B				Y															
ZINC SLAG			C																			
ZIRCON KYANITE CONCENTRATE			A																			

The contents of each column in the Table G1 are same as that in the Table 1.

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
 - AMORPHOUS SODIUM SILICATE LUMPS
 - BORIC ACID
 - CALCINED PYRITES (Pyritic ash)
 - CLINKER ASH
 - 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
WOOD PELLETS (NOT CONTAINING ANY ADDITIVES AND/OR BINDERS)
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