

Subject

Change of guidance for BC Code fitness certification
with the revision of the Code

ClassNK

Technical Information

No. TEC-0757

Date 12 December 2008

To whom it may concern

This is to notify that the guidance for BC Code fitness certification has been revised with the amendments of the Code. This Technical Information supersedes ClassNK Technical Information No.TEC-0562. The revision of the guidance for BC Code fitness certification is summarized as follows.

[Amendments of the BC Code]

The amendments of BC Code, of which individual schedules of solid bulk cargoes had been reviewed and the name had been changed to IMSBC Code, were adopted by IMO Maritime Safety Committee 85th session (MSC85) held from November to December 2008.

[Application of the revised BC Code, “IMSBC Code”]

The voluntary application of the amendments to the SOLAS Convention, which makes the IMSBC Code becomes mandatory, was agreed and the amendments were adopted by MSC85 with the following schedules.

- on or after 1 January 2009 on a voluntary basis
- on or after 1 January 2011 as mandatory

[Estimated requirements of port authorities]

Any regulation on certification or survey has not been stipulated in the BC Code, IMSBC Code or SOLAS Convention so far. On the other hand, a number of states have been requiring that ships carrying solid bulk cargoes in their waters should have a BC Code Fitness Certificate. Taking the voluntary application date of the amendments to the SOLAS Convention mentioned in the above into consideration, it is estimated that a number of states will require that ships carrying solid bulk cargoes in their waters should have a Certificate of Compliance with the International Maritime Solid Bulk Cargoes Code (hereinafter the certificate as “IMSBC Code Fitness Certificate”). (Please refer to the following table.)

Period	Estimated requirements of port authorities
~ 2008.12.31	Nil or BC Code Fitness Certificate
2009.1.1 ~ 2010.12.31	Nil or BC Code or IMSBC Code Fitness Certificate
2011.1.1 ~	Nil or IMSBC Code Fitness Certificate

(To be continued)

NOTES:

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[BC Code/IMSBC Code fitness certification]

Taking the voluntary application date of the amendments to the SOLAS Convention into consideration, ClassNK conducts, when requested, a document examination and/or a survey, and issue a certificate of fitness of a ship for the carriage of solid bulk cargoes in accordance with the provisions of the BC Code or IMSBC Code.

[Application schedule of the certification]

Taking the application date of the amendments to the SOLAS Convention, which makes the IMSBC Code becomes mandatory, into consideration, the certification are conducted for the following periods based on the issuance date of the certificate. When the certification is applied, please pay attention to “Estimated requirements of port authorities” mentioned in the above paragraph and “Cargoes for which requirements on construction/equipment are added” mentioned in the below paragraph.

Period		Certification to be conducted
~	2008.12.31	BC Code fitness certification
2009.1.1 ~	2010.12.31	BC Code or IMSBC Code fitness certification
2011.1.1 ~		IMSBC Code fitness certification

The BC Code fitness certification of which the application has been already submitted can be changed to the IMSBC Code fitness certification if the BC Code fitness certification is not completed yet. In this case, please inform of the change to ClassNK service sites in charge.

[Cargoes for which requirements on construction/equipment are added]

Comparing the requirements on the vessel's construction and equipment under the BC Code and those of the IMSBC Code, some requirements are found to be added. Please pay attention to the cargoes for which some requirements are added with the amendments of the Code. For your quick reference, the said cargoes are shown in the attached “Table G1 – Cargoes for which some requirements on construction/equipment are added”.

[Guidance for BC Code/IMSBC Code fitness certification]

Guidance for BC Code fitness certification has been editorially revised but its procedure has not been changed. As to the detailed procedure on each certification, please refer to the attached “Chapter 1 - Guidance for BC Code fitness certification” and “Chapter 2 - Guidance for IMSBC Code fitness certification”.

[Change to IMSBC Code Fitness Certificate from BC Code Fitness Certificate]

ClassNK conducts, when requested, the re-issuance of the certificate basing on the IMSBC Code in place of the BC Code. In case where the re-issuance is applied, please submit an application (free form) together with a copy of the existing BC Code Fitness Certificate to Material & Equipment Department (EQD) or ClassNK service sites. For the re-issuance, onboard survey is not required. However, please note that some cargoes for which some requirements are added may be deleted from the certificate for the reason that the vessel has not been in compliance with the additional requirements or the compliance with the additional requirements have not been confirmed by onboard survey.

(To be continued)

For any questions about the above, please contact:

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Attachment:

1. Table G1 - Cargoes for which requirements on construction/equipment are added
2. Guidance for BC Code/IMSBC Code fitness certification

Table G1 – Cargoes for which requirements on construction/equipment are added
Additional requirements 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
Bulk cargo shipping name	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	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 FERROSILICON POWDER	4.3	1395	B	A, G	Yes	ML,Sa	Yes				IICT2				X	X	X	X	X	X	
ALUMINIUM NITRATE	5.1	1438	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
ALUMINIUM SILICON POWDER, UNCOATED	4.3	1398	B	A, G	Yes	ML,Sa	Yes				IICT2				X	X	X	X	X	X	
ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS	4.3	3170	B	A, G	Yes	ML,Sa	Yes				IICT2				X	X	X	X	X	X	
AMMONIUM NITRATE	5.1	1942	B	A	Yes		Yes	Yes		IS		Yes	X	X	X		X ⁹	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type A)	5.1	2067	B	A	Yes		Yes	Yes		IS		Yes	X	X	X		X ⁹	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type B)	9	2071	B	A	Yes		Yes	Yes		IS		Yes	X	X	X		X ⁹	X	X	X	(Yes)
AMMONIUM NITRATE, BASED FERTILIZER (non-hazardous) ⁸			C		Yes		Yes	Yes		IS		Yes									
BARIUM NITRATE	5.1	1446	B			Nm	Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
CALCIUM NITRATE	5.1	1454	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
CASTOR BEANS ¹	9	2969	B			Nm	Yes	Yes			Yes		X	X				X	X		Yes
CHOPPED RUBBER AND PLASTIC INSULATION			C																		Yes ²
COAL SLURRY			A			N															
COARSE CHOPPED TYRES			C																		Yes ²
COPRA (dry)	4.2	1363	B	A	Yes	Nm							X	X				X	X	X	Yes
DIRECT REDUCED IRON, (A) Briquettes, hot-moulded	MHB		B	F	Yes	Nm, Sp				IICT2											
DIRECT REDUCED IRON, (B) Lumps, pellets, cold moulded briquettes ³	MHB		B	F	Yes					IICT2											Yes
DIRECT REDUCED IRON, (C) (By product fines) ³	MHB		B	F	Yes		Yes			IICT2											Yes
FERROPHOSPHORUS (including briquettes)	MHB		B			M, Sa	Yes			IICT1											
FERROSILICON with 30% or more but less than 90% silicon (including briquettes)	4.3	1408	B	A, G	Yes	ML,Sa	Yes	Yes	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	Yes	ML,Sa	Yes		F,N	IICT1											
FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS	4.2	2793	B	A	Yes		Yes						X	X				X	X	X	Yes
FISHMEAL (FISHSCRAP), STABILIZED	9	2216	B			Nm	Yes						X	X				X	X		Yes
GRANULATE TYPE RUBBER			C																		Yes ²
IRON OXIDE, SPENT or IRON SPONGE, SPENT	4.2	1376	B	A		Nm	Yes	Yes		IIAT2	Yes		X	X				X	X	X	Yes
LEAD NITRATE	5.1	1469	B			N	Yes	Yes			Yes	Yes	X	X				X	X		(Yes)

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
Bulk cargo shipping name	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	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	
LINTED COTTON SEED	MHB		B				Yes														Yes
MAGNESIUM NITRATE	5.1	1474	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
PEANUTS (in shell)			C	A																	
PITCH PRILL	MHB		B			Nm	Yes	Yes			Yes										
POTASSIUM NITRATE	5.1	1486	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
SAND			C	A ⁴																	
SAWDUST	MHB		B			Nm															Yes
SCRAP METAL			C			Nm															
SEED CAKE Type (a)	4.2	1386	B	A			Yes						X	X				X	X	X	Yes
SEED CAKE Type (b)	4.2	1386	B	A ⁵	Yes	Nm, Sp	Yes			IIAT3 ⁵			X	X	X ⁵	X ⁵	X ⁵	X	X	X	Yes
SEED CAKE	4.2	2217	B	A	Yes	Nm, Sp	Yes			IIAT3			X	X	X	X	X	X	X	X	Yes
SILICOMANGANESE (low carbon) (with known hazard profile or known to evolve gases) (with silicon content of 25% or more)	MHB		B		Yes	M, Sa	Yes			IICT1											
SODIUM NITRATE	5.1	1498	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	5.1	1499	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
SULPHUR (crushed lump and coarse grained) ⁶	4.1	1350	B	A	Yes	Nm, Sp	Yes			IIAT4			X	X	X		X ⁹	X	X	X	
SULPHUR (formed, solid)			C			Nm															
WOOD PELLETS	MHB		B																		Yes
ZINC ASHES	4.3	1435	B	A	Yes	ML,Sa	Yes	Yes		IICT2					X	X	X	X	X	X	

The contents of each column in the Table G1 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”)

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

X : Applicable.

15. 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. To be stowed out of direct contact with a metal engine room boundary.
 9. Only suitable wire mesh guards are required.

Chapter 1 Guidance for BC Code fitness certification

0101 General

Under the BC Code, materials are classified into those likely to liquefy listed in appendix A, those having chemical hazard listed in appendix B and others listed in appendix C. In this guidance, they are referred to as “appendix A cargoes”, “appendix B cargoes” and “appendix C cargoes” respectively.

0102 Requirements for construction and equipment

- 1. A loading manual and a stability information booklet 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 appendices A and 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 appendix A cargoes without appropriate restrictions on their moisture contents.
- 3. For the carriage of appendix B cargoes, ships are to be complied with the requirements for special construction and/or equipment specified in BC Code. The requirements for the carriage of appendix B cargoes except coal and brown coal (lignite) briquettes are summarized in Table 1.1 and 1.2. The requirements for the carriage of coal and brown coal (lignite) briquettes are shown in Table 1.3.

Note 2.1: Appendix B 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 (Reg.II-2/10.7 and 19 under SOLAS2000) are also shown in Table 1.2 for ready reference.

0103 Application

- 1. Applicant, the shipowner or their representative, or the shipbuilder, should submit an application containing the information on the items listed below to the local office or Material and Equipment Department (EQD) prior to the survey onboard the ship.
 - (1) Cargoes for which a BC Code fitness certificate is to be issued (For example, “Appendices A and C cargoes” or “Appendices A and C cargoes and (names of appendix B cargoes)”
 - (2) In case where a survey onboard the ship is required, expected date and place of the survey and local agent to be contacted
 - (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.
- 3. In case where a conversion or an alteration affecting a class requirement including the case mentioned in -2 above is made, the applicant should also apply for a class survey.

0104 Submission of documents

- 1. In case where the certification is requested for the carriage of appendix 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). For the specific construction and equipment of existing ships, if the ship’s compliance with the requirements, in the opinion of the surveyor, is capable of being checked by only the survey on board, submission of documents and document examination may be omitted.

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

0105 Document examination, survey and issue of certificate

- 1. Certification for cargoes other than appendices B cargoes
 For certification for the carriage of other cargoes than appendix B cargoes, either document examination or survey onboard the ship is not required in principle. The local office should issue a certificate in the Form 130 referring to Appendix 1.1 subject to the following.
 - (1) In case where any appendix A cargo is intended to be carried without appropriate restrictions on its moisture content, EQD should be contacted as examination of drawings of subdivision is required.
 - (2) In case where the ship is less than 100 meters in length,
 - (a) the local office should check that an appropriate loading manual containing information on allowable nominal specific gravity of cargo for each hold and longitudinal strength of the ship is provided onboard the ship, and
 - (b) "approved" in the condition 1 given in the certificate form should be deleted.
 - (3) In case where the authorization is not granted by the flag administration, "on behalf of" in the certificate form should be deleted.
- 2. Certification for cargoes including appendix B cargoes (except where appendix B cargo is only coal and/or brown coal (lignite) briquettes)
 For certification for the carriage of cargoes including appendix B cargoes (except where appendix B cargo is only coal and/or brown coal (lignite) briquettes), in addition to 0105-1, (1) through (3) below should be followed. For fluorspar (calcium fluoride), woodchips (with moisture content of 15% or more) and wood pulp pellets (with moisture content of 15% or more), however, as there is no special requirement for construction and equipment, document examination and survey on board mentioned in (1) and (2) below are not required. The local office should issue a certificate using the Form 130.
 - (1) As shown in Table 1.4, the head office (Hull Department, Machinery Department and/or EQD) or the local office should examine or check the documents. EQD should inform the applicant and the local office of the results of examination, and the local office of the time required for examination, if carried out by the head office.
 - (2) Based on the above (1) results of examination and the those of examination into the documents which should be submitted to the local office according to Table 1.4, the local office should :
 - (a) carry out a survey on board using Table 1.1 as checklist; and
 - (b) issue a certificate with the checklist attached.
 - (3) In case where certain cargo hold(s) are not permitted to be loaded in order to comply with such requirements to stow the cargo 3m away from a bulkhead between the engine room and cargo hold, the words "in all cargo holds" in the certificate form given in Appendix 1.1 should be replaced by, for instance, "in cargo holds No.1 to 4" according to the restriction.
- 3. Certification for cargoes including only coal and/or brown coal (lignite) briquettes as appendix B cargo.
 For certification for the carriage of cargoes including only coal and/or brown coal (lignite) briquettes as appendix B cargo, in addition to 0105-1, the following should be followed. Document examination on the head office is not required. Based on the results of examination into the documents listed in Table 1.5, the local office should carry out a survey on board using Table 1.3 as checklist and issue a certificate. The checklist should be

attached to the certificate.

0106 Renewal and rewrite of the certificate (No alternation on cargo list)

-1. Renewal of the certificate

Document examination on the head office is not required. The local office should carry out a survey on board using the attached table as checklist and issue a certificate based on the results of the survey. The checklist should be attached to the certificate.

-2. Rewrite of certificate due to flag change or change of ship's name

Document examination on the head office is not required. The local office should carry out a survey on board using the attached table as checklist and issue a certificate based on the results of the survey. The checklist should be attached to the certificate.

Note 6.1: The period of validity of the certificate should be five years after the date of issue.

Void

Table 1.1 - Requirements of BC Code for the carriage of Appendix B cargoes other than coal
(The following requirements govern the application of Table 1.2.)

A1	Bulkheads between the cargo space and the engine room should be insulated to class "A-60" standard. Alternatively, means should be provided to enable the cargo to be stowed at least 3m horizontally away from such bulkheads.	☐
A2	Means should be provided to enable the cargo to be stowed out of direct contact with a metal engine-room boundary.	☐
B1	Natural or mechanical, preferably mechanical, ventilation should be provided in cargo holds.	☐
B2	Natural ventilation should be provided in cargo holds.	☐
B3	Mechanical ventilation should be provided in cargo holds.	☐
B4	Mechanical ventilation with at least two separate fans should be provided in cargo holds. The total ventilation should be at least six air changes per hour, based on the empty space.	☐
B5	Spark-arresting screens should be fitted to ventilators.	☐
B6	Ventilation should be such that any escaping gases can not reach living quarters on or under the deck.	☐
C	The fuel tanks situated under the cargo spaces to be used for the transport of the material should be pressure tested to ascertain that there is no leakage of manholes and piping systems leading through the spaces.	☐
D1	In case where bilge lines are led to machinery space, stop valves and blank flanges should be provided on the bilge lines on machinery space side.	☐
D2	Bilge lines should be separated from each cargo hold. (Christmas tree bilge lines are not permissible.)	☐
E1	Fixed fire extinguishing system should be provided in cargo holds.	☐
E2	Fixed fire extinguishing system of CO ₂ or inert gas system should be provided in cargo holds.	☐
F1	Instrument for measuring temperature should be provided.	☐
F2	At least two suitable detectors for quantitative measurements of phosphine and arsine should be provided.	☐
F3	At least two suitable detectors for quantitative measurements of phosphine, arsine and silane should be provided.	☐
F4	At least two suitable explosimeters capable of detecting flammable gases should be provided.	☐
F5	Instrument for measuring oxygen and hydrogen should be provided.	☐
F6	Instrument for measuring oxygen should be provided.	☐
G1-5	Electrical equipment should be of safe type as follows. G1: IIAT2 G2: IIAT3 G3: IIAT4 G4: IICT1 G5: IICT2	☐
G6	Electric fuses/no-fuse breakers in cargo spaces are required to be extracted/cut off. So that this requirement is observed, a caution plate should be provided.	☐
G7	All electrical circuits for/through cargo spaces are required to be isolated. So that this requirement is observed, they should be capable of being isolated out side of the space, and a caution plate should be provided.	☐
H	Additional two sets of self-contained breathing apparatus with 200% spare charges should be provided.	☐
I	Additional four sets of protective clothing resistant to various chemicals should be provided.	☐
J	Dust mask and goggles should be provided.	☐
K	"NO SMOKING" signs should be posted on decks and in areas adjacent to cargo compartments.	☐
L	Nozzles for the fire main system should be of jet/spray dual purpose type, otherwise spray nozzles should be additionally provided.	☐
M	Fire pump in engine room should be capable of starting from the navigation bridge. The outlet and inlet valves of the fire main in E/R is fitted with caution plate with "Keep Open" symbol.	☐
N	The quantity of water delivered should be capable of supplying four nozzles at pressure as specified in SOLAS Reg. II-2/4 and being trained on any part of the cargo spaces when empty.	☐

X: Complied -: Not applicable

Ship's name:

Class number:

Date:

Signature: _____

**Table 1.2 - Application of the requirements to different materials
listed in Appendix B to BC Code**

General notes:

- For details of requirements of BC Code, the relevant part of BC Code as well as Table 1.1 and 1.2 of this appendix should be referred to.
- The application of the SOLAS requirements is shown just for ready reference. For details, the relevant part of SOLAS should be referred to.
- For installation of electrical equipment, in particular, applicable requirements of Part H of NK Rules are to be complied with.

Notes:

- 1 “X” means “applicable. “E” means “may be exempted from the requirement”.
- 2 Applicable to ships constructed on or after 1 July 1998.
- 3 Applicable to ships constructed before 1 July 1998.
- 4 As to pencil pitch, an exemption from the requirement may be granted.
- 5 If the moisture content is 15 % or more, an exemption from the requirement may be granted.
- 6 G5 is applicable to only non-briquettes.
- 7 B3 and G2 are applicable to solvent-extracted seed cakes.
- 8 The compliance with the requirement “4 jets of water” may be accepted as an alternative of this requirement.
- 9 As to sodium nitrate and chilean natural nitrate, the compliance with the requirement “4 jets of water” may be accepted as an alternative of this requirement.

Material (1) IMO class (2) UN No./BC No.			BC Code requirements														SOLAS Reg. II-2/54.2 or 19.3 ¹								Reg. II-2/53.1 or 10.7.1, FFEA
			A-60/ segregation	Ventilation systems	F.O.T. leak testing	Bilge systems	FFEA or IGS	Measuring instruments	Explosion proof	Breath. apparatus	Protective closing	Dust mask/goggles	NO SMOKING signs	Dual-purpose nozzles	F.P. remote starting	4 jets of water	F.P. remote start.	4 jets of water	Explosion proof	Mechanical vent.	Safe-type fan	Natural vent.	Personnel protect.	A-60 insulation	
ALMINIUM FERROSILICON POWDER (incl. Briquettes)	4.3	1395	—	B4 B6	—	—	—	F2	G5	H	—	—	K	—	—	—	—	—	X	X	X	—	X	X	E
ALMINIUM NITRATE	5.1	1438	—	—	—	—	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁸
ALUMINIUM SILICON POWDER, UNCOATED	4.3	1398	—	B4 B6	—	—	—	F3	G5	H	—	—	K	—	—	—	—	—	X	X	X	—	X	X	E
ALUMINIUM SMELTING BY-PRODUCTS	4.3	3170	—	B4 B5 B6	—	D1	—	F4	G5	H	—	—	K	—	—	—	—	—	X	X	X	—	X	X	E
AMMONIUM NITRATE	5.1	1942	A1	—	C	—	—	—	G6	H	I	—	K	—	M	—	X	X	X	—	X ²	X	X	X	X ⁸
AMMONIUM NITRATE FERTILIZERS, Type A	5.1	2067 to 2070	A1	—	C	—	—	—	G6	H	I	—	K	—	M	—	X	X	X	—	X ²	X	X	X	X ⁸

Material (1) IMO class (2) UN No./BC No.			BC Code requirements														SOLAS Reg. II-2/54.2 or 19.3 ¹								Reg. II-2/53.1 or 10.7.1, FFEA	
			A-60/ segregation	Ventilation systems	F.O.T. leak testing	Bilge systems	FFEA or IGS	Measuring instruments	Explosion proof	Breath. apparatus	Protective closing	Dust mask/goggles	NO SMOKING signs	Dual-purpose nozzles	F.P. remote starting	4 jets of water	F.P. remote start.	4 jets of water	Explosion proof	Mechanical vent.	Safe-type fan	Natural vent.	Personnel protect.	A-60 insulation		
AMMONIUM NITRATE FERTILIZERS, Type B	9	2071	A2	—	—	—	—	—	G6	H	I	—	K	—	—	N	X	X	X	—	X ²	X	X	—	X ⁸	
BARIUM NITRATE	5.1	1446	—	—	—	—	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁸	
BROWN COAL (LIGNITE) BRIQUETTES	MHB	002	See Table 1.3.														—	—	—	—	—	—	—	—	—	E
CALCINED PYRITES (Pyritic ash, Fly ash)	MHB	003	—	—	—	D2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	E		
CALCIUM NITRATE	5.1	1454	—	—	—	D2	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁸	
CASTOR BEANS	9	2969	—	—	—	—	—	—	—	H	I	J	—	L	—	—	X	X	—	—	—	X	X	—	X	
CHARCOAL	MHB	005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X		
COAL	MHB	010	See Table 1.3.														—	—	—	—	—	—	—	—	E	
COPRA, dry	4.2	1363	—	B2	—	—	—	—	—	—	—	—	K	—	—	—	X	X	—	—	—	X	X	X	X	
DIRECT REDUCED IRON, DRI (not to be confused with iron sponge, spent) such as lumps, pellets and cold-moulded briquettes	MHB	015	—	—	—	—	—	F5	G5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X		
DIRECT REDUCED IRON (Briquettes, hot moulded)	MHB	016	—	B2	—	—	—	F6	G5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	E		
FERROPHOSPHORUS (including Briquettes) ⁶	MHB	020	—	B3	—	—	—	—	G4	H	—	—	—	—	—	—	—	—	—	—	—	—	—	E		
FERROSILICON, with 30% or more but less than 90% silicon (including Briquettes)	4.3	1408	—	B4 B5 B6	—	D1	—	F2	G4	H	—	—	K	—	—	—	—	—	X	X	X	—	X	E		

Material (1) IMO class (2) UN No./BC No.			BC Code requirements														SOLAS Reg. II-2/54.2 or 19.3 ¹								Reg. II-2/53.1 or 10.7.1, FFEA
			A-60/ segregation	Ventilation systems	F.O.T. leak testing	Bilge systems	FFEA or IGS	Measuring instruments	Explosion proof	Breath. apparatus	Protective closing	Dust mask/goggles	NO SMOKING signs	Dual-purpose nozzles	F.P. remote starting	4 jets of water	F.P. remote start.	4 jets of water	Explosion proof	Mechanical vent.	Safe-type fan	Natural vent.	Personnel protect.	A-60 insulation	
FERROSILICON, containing 25% to 30%silicon,or 90% or more silicon (including Briquettes)	MHB	022	—	B4 B5 B6	—	D1	—	F2	G4	H	—	—	—	—	—	—	—	—	—	—	—	—	—	E	
FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS	4.2	2793	—	—	—	—	—	F1	—	H	—	—	K	—	—	—	X	X	—	—	—	X	X	X	X
FISHMEAL, STABILIZED and FISHSCRAP, STABILIZED anti-oxidant treated	9	2216	—	—	—	—	E2	F1	—	H	—	—	—	—	—	—	X	X	—	—	—	X	X	—	X
FLUORSPAR (calcium fluoride)	MHB	025	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	E	
IRON OXIDE, IRON SPONGE, spent	4.2	1376	—	—	—	—	—	—	G1	H	I	—	K	L	—	—	X	X	X ³	—	—	X	X	X	X
LEAD NITRATE	5.1	1469	—	—	—	—	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁸
LIME (UNSLAKED)	MHB	030	—	—	—	—	—	—	—	—	—	J	—	—	—	—	—	—	—	—	—	—	—	E	
MAGNESIA (UNSLAKED)	MHB	032	—	—	—	—	—	—	—	—	—	J	—	—	—	—	—	—	—	—	—	—	—	E	
MAGNESIUM NITRATE	5.1	1474	—	—	—	—	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁸
METAL SULPHIDE CONCENTRATES	MHB	035	—	—	—	—	E1	—	—	H	—	—	—	—	—	—	—	—	—	—	—	—	—	X	
PEAT MOSS with a moisture content of more than 65% by weight-fine to coarse fibrous structure	MHB	038	—	B2 B6	—	—	—	—	—	—	—	J	—	—	—	—	—	—	—	—	—	—	—	X	
PETROLEUM COKE, calcined or uncalcined	MHB	040	—	—	—	—	—	—	—	H	I	—	—	L	—	—	—	—	—	—	—	—	—	E	
PITCH PRILL, PRILLED COAL TAR, PENCIL PITCH	MHB	050	—	—	—	—	—	—	—	H	I	—	—	L	—	—	—	—	—	—	—	—	—	X ⁴	

Material (1) IMO class (2) UN No./BC No.			BC Code requirements														SOLAS Reg. II-2/54.2 or 19.3 ¹								Reg. II-2/53.1 or 10.7.1, FFEA
			A-60/ segregation	Ventilation systems	F.O.T. leak testing	Bilge systems	FFEA or IGS	Measuring instruments	Explosion proof	Breath. apparatus	Protective closing	Dust mask/goggles	NO SMOKING signs	Dual-purpose nozzles	F.P. remote starting	4 jets of water	F.P. remote start.	4 jets of water	Explosion proof	Mechanical vent.	Safe-type fan	Natural vent.	Personnel protect.	A-60 insulation	
POTASSIUM NITRATE (SALTPETRE)	5.1	1486	—	—	—	—	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁸
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY MATERIAL (LSA-I)	7	2912	—	—	—	—	—	—	—	H	I	—	—	—	—	—	—	—	—	—	—	—	—	—	E
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECT(S) (SCO-I)	7	2913	—	—	—	—	—	—	—	H	I	—	—	—	—	—	—	—	—	—	—	—	—	—	E
SAWDUST	MHB	055	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X
SEED CAKE (a), containing vegetable oil, MEAL, OIL CAKE, SEED EXPELLERS	4.2	1386	—	—	—	—	—	—	—	H	—	—	K	—	—	—	X	X	—	—	—	X	X	X	X
SEED CAKE (b), containing vegetable oil, MEAL, OIL CAKE, SEED EXPELLERS	4.2	1386	—	B2 B3 ⁷ B5	—	—	E2	—	G2 ⁷	H	—	—	K	—	—	—	X	X	X	X	X	—	X	X	X
SEED CAKE (c), containing vegetable oil, MEAL, OILCAKE, SEED EXPELLERS	4.2	2217	—	B3 B5	—	—	E2	—	G2	H	—	—	K	—	—	—	X	X	X	X	X	—	X	X	X
SILICONMANGANESE	MHB	060	—	B3 B6	—	—	—	—	G4	H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	E
SODIUM NITRATE, CHILE SALTPETRE, CHILEAN NATURAL NITRATE	5.1	1498	—	—	—	—	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁹
SODIUM NITRATE and POTASSIUM NITRATE, mixture CHILEAN NATURAL POTASSIC NITRATE	5.1	1499	—	—	—	—	—	—	—	H	I	—	—	L	—	—	X	X	—	—	—	X	X	—	X ⁸
SULPHUR (lump or coarse grained powder)	4.1	1350	—	B1 B5	—	—	—	—	G3	H	—	—	K	—	—	—	X	X	X	—	X	X	X	X	E

Material (1) IMO class (2) UN No./BC No.			BC Code requirements														SOLAS Reg. II-2/54.2 or 19.3 ¹								Reg. II-2/53.1 or 10.7.1, FFEA
			A-60/ segregation	Ventilation systems	F.O.T. leak testing	Bilge systems	FFEA or IGS	Measuring instruments	Explosion proof	Breath. apparatus	Protective closing	Dust mask/goggles	NO SMOKING signs	Dual-purpose nozzles	F.P. remote starting	4 jets of water	F.P. remote start.	4 jets of water	Explosion proof	Mechanical vent.	Safe-type fan	Natural vent.	Personnel protect.	A-60 insulation	
TANKAGE, Garbage tankage, Rough ammonia tankage, Tankage fertilizer	MHB	065	—	—	—	—	—	Fl	—	H	—	—	—	—	—	—	—	—	—	—	—	—	—	X	
VANADIUM ORE	MHB	070	—	—	—	—	—	—	—	H	—	—	—	—	—	—	—	—	—	—	—	—	—	E	
WOODCHIPS	MHB	075	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X ⁵	
WOOD PULP PELLETS	MHB	080	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X ⁵	
ZINC ASHES, ZINC DROSS, ZINC RESIDUES, ZINC SKIMMINGS	4.3	1435	—	B3	—	—	—	—	G5	H	I	—	K	—	—	—	—	X	X	X	—	X	X	E	

Table 1.3

Requirements of BC Code for the carriage of coal/brown coal (lignite) briquettes

1	Boundaries of cargo spaces should be resistant to fire and liquids.	☐
2	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 as detailed below.	☐
	— Electrical equipment fitted in the spaces should be of explosion protected type classified IIAT4 or d1G4, or upward; or	☐
	— electrical equipment fitted in the spaces, including motors of mechanical ventilation systems, should be capable of being positively isolated out side of the spaces and be at least of IP55 or upward, and caution plates to ensure isolation of electrical equipment should be provided.	☐
3	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)	☐
4	Two sets of self-contained breathing apparatus 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" sign and "No naked flames" sign should be posted in conspicuous places.	☐
6(*)	Natural surface ventilation should be provided for cargo spaces as detailed below.	☐
	— Natural or mechanical ventilation systems should be provided; and	☐
	— (00N) ventilation openings should be provided in the fore and aft end plates of hatch covers (00E) ventilation openings should be provided in the fore and aft end plates of hatch covers or on upper deck; 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 should 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 should be used in cargo area.	☐
8	Two sampling holes per hold, one on each side of the hatch cover should be provided with threaded stub and sealing cap.	☐

Note ; (*) : Not applicable to brown coal (lignite) briquettes
(00N) : the new ships under SOLAS as amended in 2000
(00E) : the existing ships under SOLAS as amended in 2000

×: Complied —: Not applicable

Ship's name:

Class number:

Date:

Signature: _____

Table 1.4

Documents/information to be submitted

Required items (1) Codes of BC Code requirements (2) Paragraphs of SOLAS II-2/54			Documents/information to be submitted The meanings of “H” and “L” are specified under this table.	
(1)	(2)			
A1	2.8	“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
		Alternative means to enable the cargo to be stowed at least 3m away from such bulkheads	H	Specifications and drawings
A2	-	Means to enable the cargo to be stowed out of direct contact with a metal engine-room boundary.	H	Specifications and drawings
B1	-	Natural or mechanical ventilation.	H	Drawings of the system
B2	2.4.3	Natural ventilation		
B3	-	Mechanical ventilation		
B4	2.4.1	Mechanical ventilation (total ventilation at least six air changes per hour)	H	Drawings of the system Calculations of the air changes
B5	2.4.2	Spark-arresting screens (wire mesh guard)	L	Specifications
-		Non-sparking fans	L	Specifications
B6	-	Ventilation: any escaping gases can not reach living quarters on or under the deck.	H	Drawings of the system
C	-	Testing of the fuel tanks	L	Fuel oil tank arrangement
D1	-	Stop valves and blank flanges on the bilge lines on machinery space side	H	Drawing of the bilge lines
D2	-	Separation of bilge lines		
E1	-	Fixed fire extinguishing system	H	Specifications and drawings of the system
E2	-	Fixed fire extinguishing system or IGS		
F	-	Instrument for measuring temperature, detecting flammable gases, etc.	L	Type, manufacturer and specifications
G 1-5	2.2	Electrical equipment to be of safe type.	H	Arrangement and wiring diagram of electrical equipment fitted in the space including grade of each equipment, such as IIAT4.
G6	-	Caution plate (Electric fuses/no-fuse breakers should be extracted/cut off.)	-	---
G7	-	Electrical circuits to be capable of being isolated out side of the space. Caution plate	H	Wiring diagram of circuits for through cargo spaces
H	-	Self-contained breathing apparatus	L	Type, manufacturer and specifications
I	2.6	Protective clothing resistant to chemicals		
J	-	Dust mask and goggles		
K	-	“NO SMOKING” signs	L	Number and locations of the signs
L	-	Jet/spray dual purpose type nozzle	L	Type, manufacturer and specifications
M	2.1.1	Remote starting of fire pump Caution plate with “Keep Open”	H	Wiring diagram of the remote control system
N	2.1.2	Capacity of fire pumps to supply four nozzles	H	Fire main piping diagram with arrangement of hydrant and pump capacity.

H: Three copies of documents are to be submitted to Material and Equipment department for examination by the Head office.

L: One copy is to be submitted to the local office for their checking.

Table 1.5

Documents/information to be submitted for coal/brown coal (lignite) briquettes

Requirements of BC Code for the carriage of coal (Table 1.3)	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. (Mechanical ventilation is not to be used.)	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: One copy is to be submitted to the local office for their checking.

Appendix 1.1 – Form of certificate

BC CODE FITNESS CERTIFICATE

No. (certificate number)

THIS IS TO CERTIFY that

M.S. " (ship's name) "

Call Sign:

Port of Registry:

Gross Tonnage:

Class Number:

is fit for the carriage in bulk of all the materials listed in the appendices A and C of the Code of Safe Practice for Solid Bulk Cargoes [, and **(The names of appendix B cargoes should be entered.) listed in the appendix B of the Code***] [, and materials listed in appendix B of the Code shown in the attachment**] in all cargo holds in accordance with the provisions of the Code provided that the construction and equipment listed in the attached table are maintained in good order and* that all relevant operational provisions of the Code including the following are observed:

1. Any cargo should be loaded and distributed in pursuant to information provided in the **approved*** loading manual and the stability information booklet provided onboard the ship;
2. The nominal specific gravity of any cargo should not exceed the allowable value indicated in the loading manual; and
3. **The moisture content of any material listed in the appendix A should not exceed the transportable moisture limit as defined in the Code*.**

This certificate remains valid until (date of five years after the date of issue), the relevant requirements of the Code are amended or the interpretations of the requirements are changed, or the class assigned by the Society is withdrawn, whichever is earliest.

Issued at (place) on (date) on behalf of (the name of the flag government)*

NIPPON KAIJI KYOKAI

(name), Surveyor

* Delete if not appropriate.

** The list of appendix B cargoes may be attached to this certificate.

Chapter 2 Guidance for IMSBC Code fitness certification

0201 General

Under the IMSBC Code, materials 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.

0202 Requirements for construction and equipment

- 1. A loading manual and a stability information booklet 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 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.
- 3. For the carriage of Group B cargoes, ships are to be complied 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 are summarized in Table 2.1 and 2.2. The requirements for the carriage of coal and brown coal (lignite) briquettes are shown in Table 2.3.

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 (Reg.II-2/10.7 and 19 under SOLAS2000) are also shown in Table 2.1 for ready reference.

0203 Application

- 1. Applicant, the shipowner or their representative, or the shipbuilder, should submit an application containing the information on the items listed below to the local office or Material and Equipment Department (EQD) prior to the survey onboard the ship.
 - (1) Cargoes for which a IMSBC Code fitness certificate is to be issued (For example, “Group A and C cargoes” or “Group A and C cargoes and (names of Group B cargoes)”
 - (2) In case where a survey onboard the ship is required, expected date and place of the survey and local agent to be contacted
 - (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.
- 3. In case where a conversion or an alteration affecting a class requirement including the case mentioned in -2 above is made, the applicant should also apply for a class survey.

0204 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 2.4 (other than coal and brown coal (lignite) briquettes) and/or Table 2.5 (coal and brown coal (lignite) briquettes). For the specific construction and equipment of existing ships, if the ship’s compliance with the requirements, in the opinion of the surveyor, is capable of being checked by only the survey on board, submission of documents and document examination may be omitted.

- 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 relevant structural drawings, stability calculations and other documents considered necessary by ClassNK.

0205 Document examination, survey and issue of certificate

- 1. Certification for cargoes other than Group B cargoes
 - (1) For certification for the carriage of other cargoes than Group B cargoes, either document examination or survey onboard the ship is not required in principle. The local office should issue a certificate and checklist (if any).
 - (a) In case where any Group A cargo is intended to be carried without appropriate restrictions on its moisture content, EQD should be contacted as examination of drawings of subdivision is required.
 - (b) In case where the ship is less than 100 meters in length, the local office should check that an appropriate loading manual containing information on allowable nominal specific gravity of cargo for each hold and longitudinal strength of the ship is provided onboard the ship. In this case, "approved" in the condition 1 given in the certificate form should be deleted.
 - (2) The local office should forward a copy of the certificate and checklist (if any) to CLD.
- 2. For certification for the carriage of cargoes including Group B cargoes (except where Group B cargo is only coal and/or brown coal (lignite) briquettes), (1) and (2) below should be followed.
 - (1) As shown in Table 2.4, the head office (Hull Department, Machinery Department and/or EQD) or the local office should examine or check the documents. EQD should inform the applicant and the local office of the results of examination, and the local office of the time required for examination, if carried out by the head office.
 - (2) The local office should:
 - (a) based on the above (1) results of examination and the those of examination into the documents which should be submitted to the local office according to Table 2.4, carry out a survey on board using Table 2.2 as checklist;
 - (b) finalize and issue a certificate and checklist. The certificate including Attachment 1 and Attachment 2 should be issued with the specific paper "Form 130". The checklist should not be attached to the certificate but kept on board for the periodical survey; and
 - (c) forward a copy of the certificate and checklist to CLD.
- 3. For certification for the carriage of cargoes including only coal and/or brown coal (lignite) briquettes as Group B cargo, (1) through (3) below should be followed.
 - (1) Document examination on the head office is not required. The local office should prepare a certificate and checklist.
 - (2) Based on the results of examination into the documents listed in Table 2.5, the local office should carry out a survey on board using Table 2.3 as checklist and issue a certificate. The checklist should not be attached to the certificate but kept on board for the periodical survey.
 - (3) A copy of the certificate and checklist should be forwarded to CLD.

0206 Renewal and rewrite of the certificate

- 1. Change to IMSBC Code fitness certificate from BC Code fitness certificate
Document examination at the head office is not required. The head office or local office should, when requested, prepare IMSBC Code fitness certificate and checklist. A copy of the certificate and checklist (if any) should be forwarded to CLD.

- 2. Change to IMSBC Code fitness certificate at renewal of the BC Code fitness certificate
Document examination at the head office is not required. The local office should prepare IMSBC Code fitness certificate and checklist. The survey on board should be carried out using the before-mentioned checklist, and certificate should be finalized and issued. The checklist should not be attached to the certificate but kept on board for the periodical survey. A copy of the certificate and checklist (if any) should be forwarded to CLD. (Refer to Note 6.1.)
- 3. Renewal of IMSBC Code fitness certificate
Document examination at the head office is not required. The local office should carry out a survey using the checklist kept on board and, based on the results of the survey, prepare a certificate referring to Appendix 2.1 and issue the certificate with the specific paper "Form 130". A copy of the certificate should be forwarded to CLD. (Refer to Note 6.1.)
- 4. Rewrite of IMSBC Code fitness certificate due to flag change or change of ship's name
Document examination at the head office is not required. The local office should carry out a survey using the checklist kept on board and, based on the results of the survey, prepare a certificate referring to Appendix 2.1 and issue the certificate with the specific paper "Form 130". (Refer to Note 6.1.) In case where the expiry date of new certificate is not changed from the previous one, the survey on board is not required. A copy of the certificate should be forwarded to CLD.

Note 6.1: The period of validity of the certificate should be five years after the date of issue.

Table 2.1
Requirements of construction and equipment for individual cargoes
under the provisions of the IMSBC Code 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
MATERIALS	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	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																		
ALUMINIUM FERROSILICON POWDER	4.3	1395	B	A, G	Yes	ML,Sa	Yes			IICT2					X	X	X	X	X	X	
ALUMINIUM NITRATE	5.1	1438	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
ALUMINIUM SILICON POWDER, UNCOATED	4.3	1398	B	A, G	Yes	ML,Sa	Yes			IICT2					X	X	X	X	X	X	
ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS	4.3	3170	B	A, G	Yes	ML,Sa	Yes			IICT2					X	X	X	X	X	X	
AMMONIUM NITRATE	5.1	1942	B	A	Yes		Yes	Yes		IS		Yes	X	X	X		X ⁹	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type A)	5.1	2067	B	A	Yes		Yes	Yes		IS		Yes	X	X	X		X ⁹	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type B)	9	2071	B	A	Yes		Yes	Yes		IS		Yes	X	X	X		X ⁹	X	X	X	(Yes)
AMMONIUM NITRATE, BASED FERTILIZER (non-hazardous) ⁸			C		Yes		Yes	Yes		IS		Yes									
AMMONIUM SULPHATE			C																		
ANTIMONY ORE AND RESIDUE			C																		
BARIUM NITRATE	5.1	1446	B			Nm	Yes	Yes			Yes	Yes	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 2.3.																	
CALCIUM NITRATE	5.1	1454	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
CALCIUM NITRATE FERTILIZER			C																		
CARBORUNDUM			C																		
CASTOR BEANS ¹	9	2969	B			Nm	Yes	Yes			Yes		X	X				X	X		Yes
CEMENT			C																		
CEMENT CLINKERS			C																		
CEMENT COPPER			A																		

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
MATERIALS	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	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	
CHAMOTTE			C																		
CHARCOAL	MHB		B																		Yes
CHOPPED RUBBER AND PLASTIC INSULATION			C																		Yes ²
CHROME PELLETS			C																		
CHROMITE ORE			C																		
CLAY			C																		
COAL			A and B																		
COAL SLURRY			A			N															
COARSE CHOPPED TYRES			C																		Yes ²
COKE			C																		
COKE BREEZE			A																		
COLEMANITE			C																		
COPPER CONCENTRATE			A																		
COPPER GRANULES			C																		
COPPER MATTE			C																		
COPRA (dry)	4.2	1363	B	A	Yes	Nm							X	X				X	X	X	Yes
CRYOLITE			C																		
DIAMMONIUM PHOSPHATE (D.A.P.)			C																		
DIRECT REDUCED IRON, (A) Briquettes, hot-moulded	MHB		B	F	Yes	Nm, Sp				IICT2											
DIRECT REDUCED IRON, (B) Lumps, pellets, cold moulded briquettes ³	MHB		B	F	Yes					IICT2											Yes
DIRECT REDUCED IRON, (C) (By product fines) ³	MHB		B	F	Yes		Yes			IICT2											Yes
DOLOMITE			C																		
FELSPAR LUMP			C																		
FERROCHROME			C																		
FERROCHROME, exothermic			C																		
FERROMANGANESE			C																		
FERRONICKEL			C																		
FERROPHOSPHORUS (including briquettes)	MHB		B			M, Sa	Yes			IICT1											
FERROSILICON with 30% or more but less than 90% silicon (including briquettes)	4.3	1408	B	A, G	Yes	ML,Sa	Yes	Yes	F,N	IICT1					X	X	X	X	X	X	
FERROSILICON 25% to 30% silicon, or 90% or more with silicon	MHB		B	G	Yes	ML,Sa	Yes		F,N	IICT1											

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
MATERIALS	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	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	
(including briquettes)																					
FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS	4.2	2793	B	A	Yes		Yes						X	X				X	X	X	Yes
FERTILIZERS WITHOUT NITRATES (non-hazardous)			C																		
FISH (IN BULK)			A																		
FISHMEAL (FISHSCRAP), STABILIZED	9	2216	B			Nm	Yes						X	X				X	X		Yes
FLUORSPAR	MHB		A and B																		
FLY ASH			C																		
GRANULATED SLAG			C																		
GRANULATE TYPE RUBBER			C																		Yes ²
GYPSUM			C																		
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	Yes	Yes		IIAT2	Yes		X	X				X	X	X	Yes
IRONSTONE			C																		
LABRADORITE			C																		
LEAD NITRATE	5.1	1469	B			N	Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
LEAD ORE			C																		
LIME (UNSLAKED)	MHB		B																		
LIMESTONE			C																		
LINTED COTTON SEED	MHB		B				Yes														Yes
MAGNESIA (DEADBURNED)			C																		
MAGNESIA (UNSLAKED)	MHB		B																		
MAGNESITE, natural			C																		
MAGNESIUM NITRATE	5.1	1474	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
MANGANESE ORE			C																		
MARBLE CHIPS			C																		
METAL SULPHIDE CONCENTRATES	MHB		A and B				Yes														Yes
Mineral Concentrates			A																		
MONOAMMONIUM PHOSPHATE (M.A.P.)			C																		
PEANUTS (in shell)			C	A																	
PEAT MOSS	MHB		A and B			Nm															

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
MATERIALS	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	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	
PEBBLES (sea)			C																		
PELLETS (concentrates)			C																		
PERLITE ROCK			C																		
PETROLEUM COKE, calcined or uncalcined	MHB		B				Yes	Yes			Yes										
PHOSPHATE, defluorinated			C																		
PHOSPHATE ROCK, calcined			C																		
PHOSPHATE ROCK, uncalcined			C																		
PIG IRON			C																		
PITCH PRILL	MHB		B			Nm	Yes	Yes			Yes										
POTASH			C																		
POTASSIUM CHLORIDE			C																		
POTASSIUM NITRATE	5.1	1486	B				Yes	Yes			Yes	Yes	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				Yes	Yes													
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-1)	7	2913	B				Yes	Yes													
RASORITE (ANHYDROUS)			C																		
RUTILE SAND			C																		
SALT			C																		
SALT CAKE			C																		
SALT ROCK			C																		
SAND			C	A ⁴																	
SAWDUST	MHB		B			Nm															Yes
SCRAP METAL			C			Nm															
SEED CAKE Type (a)	4.2	1386	B	A			Yes						X	X				X	X	X	Yes
SEED CAKE Type (b)	4.2	1386	B	A ⁵	Yes	Nm, Sp	Yes			IIAT3 ⁵			X	X	X ⁵	X ⁵	X ⁵	X	X	X	Yes
SEED CAKE	4.2	2217	B	A	Yes	Nm, Sp	Yes			IIAT3			X	X	X	X	X	X	X	X	Yes
SEED CAKE (non-hazardous)			C																		

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
MATERIALS	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	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 (low carbon) (with known hazard profile or known to evolve gases) (with silicon content of 25% or more)	MHB		B		Yes	M, Sa	Yes			IICT1											
SODA ASH			C																		
SODIUM NITRATE	5.1	1498	B				Yes	Yes			Yes	Yes	X	X				X	X		(Yes)
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	5.1	1499	B				Yes	Yes			Yes	Yes	X	X				X	X		(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	Yes	Nm, Sp	Yes			IIAT4			X	X	X		X ⁹	X	X	X	
SULPHUR (formed, solid)			C			Nm															
SUPERPHOSPHATE			C																		
SUPERPHOSPHATE (triple, granular)			C																		
TACONITE PELLETS			C																		
TALC			C																		
TANKAGE	MHB		B				Yes														Yes
TAPIOCA			C																		
UREA			C																		
VANADIUM ORE	MHB		B				Yes														
VERMICULITE			C																		
WHITE QUARTZ			C																		
WOODCHIPS	MHB		B																		Yes ⁷
WOOD PELLETS	MHB		B																		Yes
WOOD PULP PELLETS	MHB		B																		Yes ⁷
ZINC ASHES	4.3	1435	B	A	Yes	ML,Sa	Yes	Yes		IICT2					X	X	X	X	X	X	
ZIRCON SAND			C																		

The contents of each column in the Table 2.1 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”)
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.

- IAT3: Electrical equipment having an explosion protection grade of IAT3 or upwards are considered as suitable explosion protected type electrical equipment.
- IAT4: Electrical equipment having an explosion protection grade of IAT4 or upwards are considered as suitable explosion protected type electrical equipment.
- ICT1: Electrical equipment having an explosion protection grade of ICT1 or upwards are considered as suitable explosion protected type electrical equipment.
- ICT2: Electrical equipment having an explosion protection grade of ICT2 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. Requirements of SOLAS Reg.II-2/54.2 (Reg.II-2/19.3 on or after 2000 amendments) (column “n” ~ “u”)
X : Applicable.
15. 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. To be stowed out of direct contact with a metal engine room boundary.
 9. Only suitable wire mesh guards are required.

Table 2.2

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

Column of Table 2.1	Requirements	Result
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.	☐

- 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" or "--" should be entered in the columns.

Ship's name :
Class number :
Date :

Signature: _____

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. Electrical measuring device is to be of safe type having an explosion protection grade of IIAT4 or upwards. Methane Oxygen Carbon monoxide pH value Temperature(0 - 100°C)	☐
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" or "--" should be entered in the columns.

Ship's name :

Class number :

Date :

Signature: _____

Table 2.4

Documents/information to be submitted

Required items (1) Column of Table 2.2 (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	H	Drawings of the system Calculations of the air changes
	2.4.1 (3.4.1)	Mechanical ventilation (total ventilation at least six air changes per hour)		
	2.4.2 (3.4.2)	Non-sparking fans		
h	2.6.2 (3.6.2)	Self-contained breathing apparatus	L	Type, manufacturer and specifications
	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, such as IIAT4.
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.

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/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.

Appendix 2.1 - Form of certificate

Certificate of Compliance with the International Maritime Solid Bulk Cargoes (IMSBC) Code

No. (*certificate number*)

Name of ship :
Distinctive number or letters :
Port of registry :
Gross tonnage :
Class number :
IMO number :

This is to certify that the ship is suitable for the carriage in bulk of all cargoes listed in Attachment 1 in the cargo holds stated in accordance with the provisions of the International Maritime Solid Bulk Cargoes Code provided that:

1. the relevant construction and equipment are maintained in good order;
2. any cargo should be loaded and distributed in pursuant to information provided in the **approved*** loading manual and the stability information booklet provided onboard the ship;
3. the nominal specific gravity of any cargo should not exceed the allowable value indicated in the loading manual; and
4. the remaining operational requirements stipulated in the Code, including those stated in General Note on Attachment 2, should be ensured.

This certificate is valid until (*date of five years after the date of issue*).

Completion date of the survey on which this certificate is based : (*survey date*)

Issued at (*place*) on (*date*)

on behalf of *(the name of the flag government)**.

NIPPON KAIJI KYOKAI

(*name*), Surveyor

* *Delete if not appropriate.*

Attachment to the certificate No. (*certificate number*)

List of cargoes permitted to be carried.

[illegible]

* *Delete if not appropriate.*

Attachment to the certificate No. (*certificate number*)

General Note

- When it has been required by the Code, persons, who may be exposed to the dust of the cargo, shall wear protective clothing, goggles or other equivalent dust eye-protection and dust filter masks, as necessary.
- When carrying a solid bulk cargo which is liable to emit a toxic or flammable gas, and/or cause oxygen depletion in the cargo space, the appropriate instrument(s) for measuring the concentration of gas and oxygen in the cargo space shall be provided.

Note

1.	Except AMMONIUM NITRATE BASED FERTILIZER (non-hazardous), COAL SLURRY* , SCRAP METAL* and SULPHUR (formed, solid)* .
2.	CHOPPED RUBBER AND PLASTIC INSULATION, COARSE CHOPPED TYRES and GRANULATE TYPE RUBBER are not permitted to be loaded when the planned interval between the commencement of loading and the completion of discharge of the cargoes exceeds 5 days.
3.	AMMONIUM NITRATE BASED FERTILIZER (non-hazardous) is to be stowed out of direct contact with a metal engine room boundary.
4.	PEANUTS (in shell) and Industrial sand coated with resin are to be stowed at least 3m horizontally away from engine room boundaries.
5.	To be stowed at least 3m horizontally away from engine room boundaries.
6.	CASTER MEAL, CASTER POMACE and CASTER FLAKE shall not be carried in bulk.
7.	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.
8.	Except Seedcake containing solvent extractions.
9.	Fine grained sulphur (flowers of sulphur) shall not be transported in bulk.
10.	With moisture content of 15% or more.

* *Delete if not appropriate.*