Subject :

BC Code Fitness Certification

NKTECHNICAL INFORMATION

No. : 351

Date : 1 February 2000

To shipowners and shipbuilders concerned,

Attached hereto is a guidance for certification on fitness of ships for the carriage of solid cargoes in bulk in accordance with the provisions of the *Code of Safe Practice for Solid Bulk Cargoes* (BC Code) which developed by ClassNK. As for background to this certification, please refer to Notes 1.1 and 1.2 in the Guidance.

Should you have any question on this matter, please contact Material and Equipment Department at TEL: 81-3-5226-2020, FAX: 81-3-5226-2019.

Encl. Guidance for BC Code Fitness Certification

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Guidance for BC Code fitness certification

1. General

1.1 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 cargoes in bulk in accordance with the provisions of the *Code of Safe Practice for Solid Bulk Cargoes* (hereinafter the code is referred to as "BC Code" and the certificate as "BC Code fitness certificate"). (Refer to *Note 1.1 and 1.2.*)

1.2 BC Code fitness certification is conducted conditional upon that the ship is complied with the requirements of the rules of ClassNK and SOLAS 74 as amended applicable for the carriage of the cargoes. (Refer to *Note 1.3 and Note 1.4.*)

1.3 A BC Code fitness certificate should be issued upon completion of a document examination and a survey onboard the ship, as necessary, with satisfactory results.

1.4 BC Code fitness certificates should normally be issued for the carriage of all appendix A cargoes and appendix C cargoes or all or part of appendix B cargoes in addition to appendix A cargoes and appendix C cargoes. (Refer to *Note 1.1.*)

1.5 ClassNK has been granted authorization by a number of flag administrations to conduct BC Code fitness certification on their behalf.

Note 1.1: BC Code was developed at IMO with primary aim to promote safety of stowage and shipment of solid bulk cargoes. Under 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.

Note 1.2: While BC Code has not yet been made mandatory under any international instrument, a number of states reportedly have required that ships carrying solid cargoes in bulk in their waters should have such a certificate of fitness as mentioned above. BC Code fitness certificates issued by the Society have reportedly been accepted by such port states, except that for the carriage of materials listed in appendix B, the Italian government accepts only certificates issued by the classification society established in Italy.

Note 1.3: Appendix B cargoes can be divided into those classified as dangerous goods in IMDG Code and materials hazardous only in bulk (MHB). Ships intended for the carriage of dangerous goods and constructed on or after 1 September 1984 are required to be complied with the requirements of SOLAS74 Reg.II-2/54 as amended. It has been reported that some states including Italy require that ships carrying dangerous goods in their waters should have a certificate of compliance with the SOLAS requirements regardless of the date of construction. The Society would issue such a certificate if requested.

Note 1.4: Appendix B cargoes can also be divided into non-combustible or low-fire-risk materials and other materials. Ships carrying cargoes other than those of non-combustible or low-fire-risk can not be exempted from the requirement of SOLAS Reg.II-2/53.1.1 for a fixed fire extinguishing system in cargo spaces. Ships exempted from the requirement are required to have an exemption certificate to which a list of cargoes permitted is to be carried, which are to be non-combustible or low-fire-risk cargoes. In issuing a BC Code fitness certificate, it should be confirmed that the ship has been complied with these requirements as applicable depending on cargoes for the carriage of which the certificate is to be issued.

2. Requirements for construction and equipment

2.1 A loading manual and a stability information booklet are required to be provided onboard regardless of the types of cargoes intended to be carried.

2.2 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.

2.3 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 are summarized in table 1 and 2. The requirements for the carriage of coal are shown in table 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 are also shown in table 2 for ready reference.

3. Application

3.1 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).

(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 submitted later, if any.

3.2 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 as necessary. (Refer to paragraph 1.2 and *Note 1.2.*)

3.3 In case where a conversion or an alteration affecting a class requirement including the case mentioned in 3.2 above is made, the applicant should also apply for a class survey.

4. Submission of documents

4.1 In case where the certification is requested for the carriage of appendix B cargoes, the applicant should submit the documents as shown in table 4 to EQD.

4.2 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.

5. Document examination, survey and issue of certificate

5.1 Certification for cargoes other than appendices B cargoes

5.1.1 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 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.

5.1.2 A copy of the certificate should be forwarded to EQD.

5.2 Certification for cargoes including appendix B cargoes

For certification for the carriage of cargoes including appendix B cargoes, in addition to (1), (2) and (3) of 5.1 above, the following 5.2.1 5.2.2 and 5.2.3 should be followed.

5.2.1 As shown in table 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.

5.2.2 The local office should carry out a survey onboard the ship using table 1 or table 3 as checklist, issue a certificate in the Form 130 referring to appendix 1. The checklist should be attached to the certificate.

5.2.3 A copy of the certificate should be forwarded to EQD together with a copy of the checklist.

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Table 1 - **Requirements of BC Code for the carriage of Appendix B cargoes other than coal**
(The following requirements govern the application of Table 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.	☐

Ship's name:

Class number:

Date:

Signature: _____

Table 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 and 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.

Material (1) IMO class (2) UN No./BC No.	(1)	(2)	BC Code requirements													SOLAS Reg. II-2/54.2[1]								Reg. II-2/53.1, 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. (2.1.1)	4 jets of water (2.1.2)	Explosion proof (2.2)	Mechanical vent. (2.4.1)	Safe-type fan (2.4.2)	Natural vent. (2.4.3).	Personnel protect. (2.6).	A-60 insulation (2.8)	
ALMINIUM FERROSILICON POWDER (incl. Briquettes)	4.3	1395	–	B4 B6	–	–	–	F2	G5	H	–	–	–	–	–	–	–	–	X	X	X	–	X	X	E
ALMINIUM NITRATE	5.1	1438	–	–	–	–	E3	–	–	H	I	–	–	L	–	–	X	X	–	–	–	X	X	–	X
ALUMINIUM SILICON POWDER, UNCOATED	4.3	1398	–	B4 B6	–	–	–	F3	G5	H	–	–	–	–	–	–	–	–	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	–	E3	–	G6	H	I	–	K	–	M	–	X	X	X	–	X[2]	X	X	X	X
AMMONIUM NITRATE FERTILIZERS, Type A	5.1	2067 to 2070	A1	–	C	–	E3	–	G6	H	I	–	K	–	M	–	X	X	X	–	X[2]	X	X	X	X

Material (1) IMO class (2) UN No./BC No.	(1)	(2)	BC Code requirements														SOLAS Reg. II-2/54.2[1]								Reg. II-2/53.1, 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. (2.1.1)	4 jets of water (2.1.2)	Explosion proof (2.2)	Mechanical vent. (2.4.1)	Safe-type fan (2.4.2)	Natural vent. (2.4.3)	Personnel protect. (2.6)	A-60 insulation (2.8)	
AMMONIUM NITRATE FERTILIZERS, Type B	9	2071	A2	–	–	–	E3	–	G6	H	I	–	K	–	–	N	X	X	X	–	X[2]	X	X	–	X
BARIUM NITRATE	5.1	1446	–	–	–	–	E3	–	–	H	I	–	–	L	–	–	X	X	–	–	–	X	X	–	X
CALCINED PYRITES (Pyritic ash, Fly ash)	MHB	003	–	–	–	D2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	E
CALCIUM NITRATE	5.1	1454	–	–	–	D2	–	–	–	H	I	J	–	L	–	–	X	X	–	–	–	X	X	–	X
CASTOR BEANS	9	2969	–	–	–	–	–	–	–	H	I	J	–	L	–	–	X	X	–	–	–	X	X	–	X
CHARCOAL	MHB	005	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X
COAL	MHB	010	See Table 3.														–	–	–	–	–	–	–	–	E
COPRA, dry	4.2	1363	–	B2	–	–	–	–	–	–	–	–	–	–	–	–	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 not less than 90% silicon (including Briquettes)	4.3	1408	–	B4 B5 B6	–	D1	–	F2	G4	H	–	–	–	–	–	–	–	–	X	X	X	–	X	X	E

Material (1) IMO class (2) UN No./BC No.	(1)	(2)	BC Code requirements														SOLAS Reg. II-2/54.2[1]								Reg. II-2/53.1, 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. (2.1.1)	4 jets of water (2.1.2)	Explosion proof (2.2)	Mechanical vent. (2.4.1)	Safe-type fan (2.4.2)	Natural vent. (2.4.3).	Personnel protect. (2.6).	A-60 insulation (2.8)	
FERROSILICON, containing 25% to 30%silicon,or 90% or more silicon (including Briquettes)	MHB	022	–	B4 B5 B6	–	D2	–	F2	G4	H	–	–	–	–	–	–	–	–	–	–	–	–	–	–	E
FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS	4.2	2793	–	–	–	–	–	F1	–	I	–	–	–	–	–	–	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	–	–	L	–	–	X	X	X[3]	–	–	X	X	X	X
LEAD NITRATE	5.1	1469	–	–	–	–	–	–	–	H	I	–	–	L	–	–	X	X	–	–	–	X	X	–	X
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
METAL SULPHIDE CONCENTRATES	MHB	035	–	–	–	–	E1	–	–	H	–	–	–	–	–	–	–	–	–	–	–	–	–	–	E
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

Material (1) IMO class (2) UN No./BC No.	(1)	(2)	BC Code requirements														SOLAS Reg. II-2/54.2[1]								Reg. II-2/53.1, 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. (2.1.1)	4 jets of water (2.1.2)	Explosion proof (2.2)	Mechanical vent. (2.4.1)	Safe-type fan (2.4.2)	Natural vent. (2.4.3).	Personnel protect. (2.6).	A-60 insulation (2.8)	
PITCH PRILL, PRILLED COAL TAR, PENCIL PITCH	MHB	050	–	–	–	–	–	–	–	H	I	–	–	L	–	–	–	–	–	–	–	–	–	–	X[4]
POTASSIUM NITRATE (SALTPETRE)	5.1	1486	–	–	–	–	–	–	–	H	I	–	–	L	–	–	X	X	–	–	–	X	X	–	X
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	–	–	–	–	–	–	X	X	–	–	–	X	X	X	X
SEED CAKE (b), containing vegetable oil, MEAL, OIL CAKE, SEED EXPELLERS	4.2	1384	–	B3 B5	–	–	E2	–	G2	H	–	–	–	–	–	–	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	–	–	–	–	–	–	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
SODIUM NITRATE and POTASSIUM NITRATE, mixture CHILEAN NATURAL POTASSIC NITRATE	5.1	1499	–	–	–	–	–	–	–	H	I	–	–	L	–	–	X	X	–	–	–	X	X	–	X

Material (1) IMO class (2) UN No./BC No.	(1)	(2)	BC Code requirements														SOLAS Reg. II-2/54.2[1]								Reg. II-2/53.1, 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. (2.1.1)	4 jets of water (2.1.2)	Explosion proof (2.2)	Mechanical vent. (2.4.1)	Safe-type fan (2.4.2)	Natural vent. (2.4.3).	Personnel protect. (2.6).	A-60 insulation (2.8)	
SULPHUR (lump or coarse grained powder)	4.1	1350	–	B1 B5	–	–	E1	–	G3	H	–	–	–	–	–	–	X	X	X	–	X	X	X	X	E
TANKAGE, Garbage tankage, Rough ammonia tankage, Tankage fertilizer	MHB	065	–	–	–	–	–	F1	–	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	–	B2	–	–	–	–	G5	H	I	–	–	–	–	–	–	–	X	X	X	–	X	X	E

Table 3 - **Requirements of BC Code for the carriage of coal**

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.	☐
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℃)	☐
4	Two sets of self-contained breathing apparatus to be provided.	☐
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. (Mechanical ventilation is not to be used.)	☐
7	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.	☐
8	Two sampling holes per hold, one on each side of the hatch cover should be provided with threaded stub and sealing cap.	☐

Ship's name:

Class number:

Date: Signature: _____

Table 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.

Appendix 1 – **Form of BC Code Fitness 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

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(name), Surveyor

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* *Delete if not appropriate.*

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