RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part R Fire Protection, Detection and Extinction

Rules for the Survey and Construction of Steel Ships
Part R 2010 AMENDMENT NO.2
Guidance for the Survey and Construction of Steel Ships
Part R 2010 AMENDMENT NO.3

Rule No.103 / Notice No.116 27th December 2010
Resolved by Technical Committee on 6th July 2010
Approved by Board of Directors on 27th July 2010

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NIPPON KAIJI KYOKAI

RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part R Fire Protection, Detection and Extinction

2010 AMENDMENT NO.2

Rule No.103 27th December 2010
Resolved by Technical Committee on 6th July 2010
Approved by Board of Directors on 27th July 2010

Rule No.103 27th December 2010
AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

"Rules for the survey and construction of steel ships" has been partly amended as follows:

Part R FIRE PROTECTION, DETECTION AND EXTINCTION

Chapter 16 OPERATIONS

16.2 Fire Safety Operation

16.2.1 Fire Safety Operational Booklets

Sub-paragraph -1 has been amended as follows.

1 The required fire safety operational booklet is to contain the necessary information and instructions for the safe operation of the ship and cargo handling operations in relation to fire safety. The booklet is to include information concerning the crew's responsibilities for the general fire safety of the ship while loading and discharging cargo and while underway. Necessary fire safety precautions for handling general cargoes are to be explained. For ships carrying dangerous goods and flammable bulk cargoes, the fire safety operational booklet is also to provide reference to the pertinent fire-fighting and emergency cargo handling instructions contained in ~~the Code of Safe Practice for Solid Bulk Cargoes (*BC* Code)~~ the International Maritime Solid Bulk Cargoes Code (*IMSBC* Code), the International Bulk Chemical Code (*IBC* Code), the International Gas Carrier Code (*IGC* Code) and the International Maritime Dangerous Goods Code (*IMDG* Code), as appropriate.

Chapter 19 CARRIAGE OF DANGEROUS GOODS

19.2 General Requirements

Paragraph 19.2.1 has been amended as follows.

19.2.1 Application

1 In addition to complying with the requirements of regulations in **Chapters 4** to **16**, **18** and **20** as appropriate, cargo spaces referred to in **19.2.2**, intended for the carriage of dangerous goods are to comply with the requirements of this Chapter, as appropriate, except when carrying dangerous goods in limited quantities and excepted quantities unless such requirements have already been met by compliance with the requirements elsewhere in this Part.

2 Facilities and conditions for carriage which are needed for carrying the dangerous goods specified in **19.2.3**, are to be in accordance with the relevant requirements of the *IMSBC* Code, as defined in Chapter VI, Regulation 1.1 of *SOLAS* (hereinafter referred to as *IMSBC* Code) and the relevant requirements of the *IMDG* Code, as defined in Chapter VII, Regulation 1.1 of *SOLAS* (hereinafter referred to as *IMDG* Code). ~~With regard to the above, attentions are to be paid to the relevant requirements of the Code of Safety Practice for Solid Bulk Cargoes (*IMO* Res. *A*.434(XI), as may be amended, hereinafter referred to as *BC* Code).~~

Paragraph 19.2.3 has been amended as follows.

19.2.3 Classes of Dangerous Goods

Dangerous Goods, to which the requirements in this Chapter are applied, are classified into ~~21~~ 23 classes as follows:

(1) Explosives in *Class* 1.1 to 1.6 as defined in the *IMDG* Code except goods in division 1.4, compatibility group S (hereinafter, referred to as goods in *Class* 1.4*S*).

(2) Explosives in *Class* 1.4*S* as defined in the *IMDG* Code.

(3) Flammable high-pressure gases in *Class* 2.1 as defined in the *IMDG* Code.

(4) Non-flammable non-poisonous (non-toxic) high-pressure gases in *Class* 2.2 as defined in the *IMDG* Code.

(5) Flammable~~Poisonous~~ poisonous (toxic) high-pressure gases in *Class* 2.3 as defined in the *IMDG* Code.

(6) Non-flammable poisonous (toxic) high-pressure gases in *Class* 2.3 as defined in the *IMDG* Code.

(~~6~~ 7) Flammable liquid substances having a flashpoint of less than 23℃ and in *Class* 3 as defined in the *IMDG* Code ~~respectively~~.

(~~7~~ 8) Flammable liquid substances having a flashpoint of 23℃ or above and less than or equal to ~~61~~ 60 ℃ and in *Class* 3 as defined in the *IMDG* Code.

(~~8~~ 9) Flammable solid~~s~~ substances in *Class* 4.1 as defined in the *IMDG* Code.

(~~9~~ 10) Substances liable to spontaneous combustion in *Class* 4.2 as defined in the *IMDG* Code.

(11) Liquid substances which, in contact with water, emit flammable gases in *Class* 4.3 as defined in the *IMDG* Code.

(~~10~~ 12) ~~Substances~~ Solid substances which, in contact with water, emit flammable gases in *Class* 4.3 as defined in the *IMDG* Code.

(~~11~~ 13) Oxidizing substances in *Class* 5.1 as defined in the *IMDG* Code.

(~~12~~ 14) Organic peroxides in *Class* 5.2 as defined in the *IMDG* Code.

~~(13) Poisonous (toxic) substances having a flashpoint of greater than 61℃ and in *Class* 6.1 as~~

~~defined in the *IMDG* Code.~~

~~(14) Poisonous (toxic) substances having a flashpoint of less than 23℃ and in *Class* 6.1 as defined in the *IMDG* Code.~~

~~(15) Poisonous (toxic) substances having a flashpoint of 23℃ or above and less than or equal to 61℃ and in *Class* 6.1 as defined in the *IMDG* Code.~~

(15) Poisonous (toxic) liquid substances having a flashpoint of less than 23℃ and in *Class* 6.1 as defined in the *IMDG* Code.

(16) Poisonous (toxic) liquid substances having a flashpoint of 23℃ or above and less than or equal to 60℃ and in *Class* 6.1 as defined in the *IMDG* Code.

(17) Poisonous (toxic) liquid substances having a flashpoint of greater than 60℃ and in *Class* 6.1 as defined in the *IMDG* Code.

(~~16~~ 18) ~~Solid poisonous~~ Poisonous (toxic) solid substances in *Class* 6.1 as defined in the *IMDG* Code.

~~(17) Corrosives having a flashpoint of greater than 61℃ and in *Class* 8 as defined in the *IMDG* Code.~~

~~(18) Corrosives having a flashpoint of less than 23℃ and in *Class* 8 as defined in the *IMDG* Code.~~

~~(19) Corrosives having a flashpoint of 23℃ or above and less than or equal to 61℃ and in the *Class* 8 as defined in *IMDG* Code.~~

(19) Corrosives liquid substances having a flashpoint of less than 23℃ and in *Class* 8 as defined in the *IMDG* Code.

(20) Corrosives liquid substances having a flashpoint of 23℃ or above and less than or equal to 60℃ and in the *Class* 8 as defined in the *IMDG* Code.

(21) Corrosives liquid substances having a flashpoint of greater than 60℃ and in *Class* 8 as defined in the *IMDG* Code.

(~~20~~ 22) ~~Solid corrosives~~ Corrosive solid substances in *Class* 8 as defined in the *IMDG* Code.

(~~21~~ 23) Miscellaneous dangerous substances in *Class* 9 as defined in the *IMDG* Code.

Notes of Table R19.1 have been amended as follows.

Table R19.1 Application of the Requirements to Different Modes of Carriage of Dangerous Goods in Ships

		Categories of Cargo Spaces **(19.2.2)**					
	Special Requirements **(19.3)**	(1)	(2)	(3)	(4)	(5)	(6)
19.3.1-1.	Remote arrangements for fire pumps	X	X	X	X	X	X
19.3.1-2.	Quantity of water delivery	X	X	X	X	X	-
19.3.1-3.	Cooling arrangements (water spraying or flooding)	-	X	X	X	X	X
19.3.1-4.	Cooling arrangements (using media other than water)	-	X	X	X	X	X
19.3.1-5.	Total capacity of water supply	X	X	X	X	X	-
19.3.2	Sources of ignition	-	X	X	X	X	X[d]
19.3.3	Detection system	-	X	X	X	-	X[d]
19.3.4-1.	Power ventilation	-	X	X[a]	X	-	X[d]
19.3.4-2.	Ventilation fans (ignition-free)	-	X	X[a]	X	-	X[d]
19.3.5	Bilge pumping	-	X	X	X	-	-
19.3.6-1.	Personnel protection	X	X	X	X	X	-
19.3.6-2.	Self-contained breathing apparatus	X	X	X	X	X	-
19.3.7	Portable fire extinguishers	X	X	-	-	X	-
19.3.8	Insulation of machinery space boundaries	X	X	X[b]	X	X	-
19.3.9	Water spray system	-	-	-	X[c]	X	-
19.3.10-1.	Separation of ro-ro spaces	-	-	-	X	-	-
19.3.10-2.	Separation of weather decks	-	-	-	X	-	-

Notes:

1. The categories of cargo spaces in **Table R19.1** in accordance with the provisions of **19.2.2** are as follows.
   (1) weather deck cargo spaces (including **(2)** to **(6)** below)
   (2) cargo spaces not specially designed
   (3) container cargo spaces
   (4) closed ro-ro spaces
   (5) open ro-ro spaces
   (6) shipborne barge cargo spaces
2. Where "X" appears in **Table R19.1**, it means that such requirements are to be applied to all categories of dangerous goods as given in the corresponding line of **Table R19.3**, except as indicated in the notes below.
3. Subscripts in **Table R19.1** are as follows.
   a : For *Classes* 4 and 5.1 solids (**19.2.3(9), (10), (12)** and **(13)**) not applicable to closed freight containers.
   For *Classes* 2, 3, 6.1 and 8 (**19.2.3(3)** to **(8)** and **(15)** to **(22)**) when carried in closed freight containers, the ventilation rate may be reduced to not less than two air changes per hour. For *Classes* 4 and 5.1 liquids (**19.2.3(9)** to **(11)** and **(13)**) when carried in closed freight containers, the ventilation rate may be reduced to not less than two air changes per hour.
   For the purpose of this requirement, a portable tank is a closed freight container.
   b : Applicable to decks only.
   c : Applies only to closed ro-ro spaces, not capable of being sealed.
   d : In the special case where the barges are capable of containing flammable vapours or alternatively if they are capable of discharging flammable vapours to a safe space outside the barge carrier compartment by means of ventilation ducts connected to the barges, these requirements may be reduced or waived to the satisfaction of the Society.

Notes of Table R19.2 have been amended as follows.

Table R19.2 Application of the Requirements to Different Classes of Dangerous Goods for Carrying Solid Dangerous Goods in Bulk

		Classification of Dangerous Goods (**19.2.3**)						
	Special Requirements (**19.3**)	4.1	4.2	4.3[a]	5.1	6.1	8	9
19.3.1-1.	Remote arrangements for fire pumps	X	X	-	X	-	-	X
19.3.1-2.	Quantity of water delivery	X	X	-	X	-	-	X
19.3.1-5.	Total capacity of water supply	X	X	-	X	-	-	X
19.3.2	Sources of ignition	X	X[b]	X	X[c]	-	-	X[c]
19.3.4-1.	Power ventilation	-	X[b]	X	-	-	-	-
19.3.4-2.	Ventilation fans (ignition-free)	X[d]	X[b]	X	X[b,d]	-	-	X[b,d]
19.3.4-3.	Natural ventilation	X	X	X	X	X	X	X
19.3.6	Personnel protection	X	X	X	X	X	X	X
19.3.8	Insulation of machinery space boundaries	X	X	X	X[b]	-	-	X[e]

Notes:

1. *Classes* of dangerous goods in **Table R19.2** in accordance with the provisions of **19.2.3** are as follows.
   - 4.1 : Flammable solids in *Class* 4.1 (**19.2.3~~(8)~~ (9)**)
   - 4.2 : Substances liable to spontaneous combustion in *Class* 4.2 (**19.2.3~~(9)~~ (10)**)
   - 4.3 : Substances which, in contact with water, emit flammable gases in *Class* 4.3 (**19.2.3~~(10)~~ (11)** and **(12)**)
   - 5.1 : Oxidizing substances in *Class* 5.1 (**19.2.3~~(11)~~ (13)**)
   - 6.1 : Solid poisonous (toxic) substances in *Class* 6.1 (**19.2.3~~(16)~~ (18)**)
   - 8 : Solid corrosives in *Class* 8 (**19.2.3~~(20)~~ (22)**)
   - 9 : Miscellaneous dangerous substances in *Class* 9 (**19.2.3~~(21)~~ (23)**)
2. Whenever "X" appears in **Table R19.2**, it means that this special requirement for the dangerous goods is applicable.
3. Subscripts in **Table R19.2** are as follows.
   - a : The hazards of substances in this class which may be carried in bulk are such that special consideration must be given by the Society to the construction and equipment of the ship involved in addition to meeting the requirements enumerated in this table.
   - b : Only applicable to Seedcake containing solvent extractions, to Ammonium nitrate and Ammonium nitrate fertilizers.
   - c : Only applicable to Ammonium nitrate and Ammonium nitrate fertilizers. However, a degree of protection in accordance with standards contained in the International Electrotechnical Commission, publication 60079, Electrical Apparatus for Explosive Gas Atmospheres, is sufficient.
   - d : Only suitable wire mesh guards are required.
   - e : The requirements of ~~*BC*~~ *IMSBC* Code are sufficient.

Table R19.3 has been amended as follows.

Table R19.3 Application of the Requirements to Different Classes of Dangerous Goods excluding Solid Dangerous Goods in Bulk

Special Requirements (**19.3**)	Classification of Dangerous Goods (**19.2.3**)																								
	1	1.4*S*	2.1	2.2	~~2.3~~	2.3 *F*[i]	2.3 *NF*	3*L*	3*M*	4.1	4.2	4.3 *liquids*[j]	4.3	5.1	5.2[e]	~~6.1*H*~~	6.1*L* *liquids*	6.1*M* *liquids*	6.1*H* *liquids*	6.1	~~8*H*~~	8*L* *liquids*	8*M* *liquids*	8*H* *liquids*	8	9
19.3.1-1.	X	X	X	X	~~X~~	X	X	X	X	X	X	X	X	X	X	~~X~~	X	X	X	X	~~X~~	X	X	X	X	X
19.3.1-2.	X	X	X	X	~~X~~	X	X	X	X	X	X	X	X	X	X	~~X~~	X	X	X	X	~~X~~	X	X	X	X	-
19.3.1-3.	X	-	-	-	~~-~~	-	-	-	-	-	-	-	-	-	-	~~-~~	-	-	-	-	~~-~~	-	-	-	-	-
19.3.1-4.	X	-	-	-	~~-~~	-	-	-	-	-	-	-	-	-	-	~~-~~	-	-	-	-	~~-~~	-	-	-	-	-
19.3.1-5.	X	X	X	X	~~X~~	X	X	X	X	X	X	X	X	X	X	~~X~~	X	X	X	X	~~X~~	X	X	X	X	-
19.3.2	X	-	X	-	~~-~~	X	-	X	-	-	-	X[g]	-	-	-	~~-~~	X	-	-	-	~~-~~	X	-	-	-	X[f]
19.3.3	X	X	X	X	~~X~~	-	X	X	X	X	X	X	X	X	-	~~X~~	X	X	X	X	~~X~~	X	X	X	X	-
19.3.4-1.	-	-	X	-	~~X~~	-	X	X	-	X[a]	X[a]	X	X	X[a]	-	~~-~~	X	X	-	X[a]	~~-~~	X	X	-	-	X[a]
19.3.4-2.	-	-	X	-	~~-~~	-	-	X	-	-	-	-	-	-	-	~~-~~	X	-	-	-	~~-~~	X	~~X~~-	-	-	X[f]
19.3.5	-	-	-	-	~~-~~	-	-	X	-	-	-	-	-	-	-	~~X~~	X	X	X	-	~~-~~	X	X[h]	X[h]	-	-
19.3.6	-	-	X	X	~~X~~	X	X	X	X	X	X	X	X	X	X	~~X~~	X	X	X	X	~~X~~	X	X	X	X	X[d]
19.3.7	-	-	-	-	~~-~~	-	-	X	X	X	X	X	X	X	-	~~-~~	X	X	-	-	~~-~~	X	X	-	-	-
19.3.8	X[b]	-	X	X	~~X~~	X	X	X	X	X	X	X	X	X[c]	X	~~-~~	X	X	-	-	~~-~~	X	X	-	-	-
19.3.9	X	X	X	X	~~X~~	X	X	X	X	X	X	X	X	X	X	~~X~~	X	X	X	X	~~X~~	X	X	X	X	X
19.3.10-1.	X	X	X	X	~~X~~	X	X	X	X	X	X	X	X	X	X[e]	~~X~~	X	X	X	X	~~X~~	X	X	X	X	X
19.3.10-2.	X	X	X	X	~~X~~	X	X	X	X	X	X	X	X	X	X[e]	~~X~~	X	X	X	X	~~X~~	X	X	X	X	X

Notes:

1. *Classes* of dangerous goods in **Table R19.3** in accordance with the provisions of **19.2.3** are as follows.

1	:	Explosives in *Class* 1.1 to 1.6 except *Class* 1.4*S* (**19.2.3(1)**)
1.4*S*	:	Explosives in *Class* 1.4*S* (**19.2.3(2)**)
2.1	:	Flammable high-pressure gases in *Class* 2.1 (**19.2.3(3)**)
2.2	:	Non-flammable non-poisonous (non-toxic) high-pressure gases in *Class* 2.2 (**19.2.3(4)**)
~~2.3~~	:	~~Poisonous (toxic) high-pressure gases in *Class* 2.3 (**19.2.3(5)**)~~
2.3*F*	:	Flammable poisonous (toxic) high-pressure gases in *Class* 2.3 (**19.2.3(5)**)
2.3*NF*	:	Non-flammable poisonous (toxic) high-pressure gases in *Class* 2.3 (**19.2.3(6)**)
3*L*	:	Flammable liquid substances having a flashpoint of less than 23℃ in *Class* 3 (**19.2.3~~(6)~~ (7)**)
3*M*	:	Flammable liquid substances having a flashpoint of 23℃ or above and less than or equal to ~~61~~ 60℃ in *Class* 3 (**19.2.3~~(7)~~ (8)**)
4.1	:	Flammable solid~~s~~ substances in *Class* 4.1 (**19.2.3~~(8)~~ (9)**)
4.2	:	Substances liable to spontaneous combustion in *Class* 4.2 (**19.2.3~~(9)~~ (10)**)
4.3*L liquids*	:	Liquid substances which, in contact with water, emit flammable gases in *Class* 4.3 (**19.2.3 (11)**)
4.3	:	~~Substances~~ Solid substances which, in contact with water, emit flammable gases in *Class* 4.3 (**19.2.3~~(10)~~ (12)**)
5.1	:	Oxidizing substances in *Class* 5.1 (**19.2.3~~(11)~~ (13)**)
5.2	:	Organic peroxides in *Class* 5.2 (**19.2.3~~(12)~~ (14)**)
~~6.1*H*~~	:	~~Poisonous (toxic) substances having a flashpoint of greater than 61℃ in *Class* 6.1 (**19.2.3(13)**)~~
~~6.1*L*~~	:	~~Poisonous (toxic) substances having a flashpoint of less than 23℃ in *Class* 6.1 Code. (**19.2.3(14)**)~~
~~6.1*M*~~	:	~~Poisonous (toxic) substances having a flashpoint of 23℃ or above and less than or equal to 61℃ in *Class* 6.1 (**19.2.3(15)**)~~
6.1*L liquids*	:	Poisonous (toxic) liquid substances having a flashpoint of less than 23℃ in *Class* 6.1 Code. (**19.2.3(15)**)
6.1*M liquids*	:	Poisonous (toxic) liquid substances having a flashpoint of 23℃ or above and less than or equal 60℃ in *Class* 6.1 Code. (**19.2.3(16)**)
6.1*H liquids*	:	Poisonous (toxic) liquid substances having a flashpoint of greater than 60℃ in *Class* 6.1 Code. (**19.2.3(17)**)
6.1	:	~~Solid poisonous~~ Poisonous (toxic) solid substances in *Class* 6.1 (**19.2.3~~(16)~~ (18)**)
~~8.1*H*~~	:	~~Corrosives having a flashpoint of greater than 61℃ in *Class* 8 (**19.2.3(17)**)~~
~~8*L*~~	:	~~Corrosives having a flashpoint of less than 23℃ in *Class* 8 (**19.2.3(18)**)~~
~~8*M*~~	:	~~Corrosives having a flashpoint of 23℃ or above and less than or equal to 61℃ in *Class* 8 (**19.2.3(19)**)~~
8*L liquids*	:	Corrosive liquid substances having a flashpoint of less than 23℃ in *Class* 8 Code. (**19.2.3(19)**)
8*M liquids*	:	Corrosive liquid substances having a flashpoint of 23℃ or above and less than or equal 60℃ in *Class* 8 Code. (**19.2.3(20)**)
8*H liquids*	:	Corrosive liquid substances having a flashpoint of greater than 60℃ in *Class* 8 Code. (**19.2.3(21)**)
8	:	~~Solid corrosives~~ Corrosive solid substances in *Class* 8 (**19.2.3~~(20)~~ (22)**)
9	:	Miscellaneous dangerous substances in *Class* 9 (**19.2.3~~(21)~~ (23)**)

2. Whenever "X" appears in **Table R19.2**, it means that this special requirement for the dangerous goods is applicable.
3. Subscripts in **Table R19.3** are as follows.
   - a : When "mechanically - ventilated spaces" are required by *IMDG* Code.
   - b : Stow 3 *m* horizontally away from the machinery space boundaries in all cases.
   - c : Refer to *IMDG* Code.
   - d : As appropriate to the goods to be carried.
   - e : Under the provisions of the *IMDG* Code, as amended, storage of *Class* 5.2 dangerous goods below deck or in enclosed ro-ro spaces is prohibited.
   - f : Only applicable to dangerous goods evolving flammable vapour listed in the *IMDG* Code.
   - g : Only applicable to dangerous goods having a flashpoint less than 23℃ listed in the *IMDG* Code.
   - h : Only applicable to dangerous goods having a subsidiary risk *Class* 6.1.
   - i : Under the provisions of the *IMDG* Code, stowage of *Class* 2.3 having subsidiary risk *Class* 2.1 under deck or in enclosed ro-ro space is prohibited.
   - j : Under the provisions of the *IMDG* Code, storage of *Class* 4.3 liquids having a flashpoint less than 23℃ under deck or in enclosed ro-ro spaces is prohibited.

19.3 Special Requirements

The title of Paragraph 19.3.4 has been amended as follows.

19.3.4 Ventilation <u>Arrangement</u>

19.3.6 Personnel Protection

Sub-paragraph -1 has been amended as follows.

1 Four sets of full protective clothing resistant to chemical attack are to be provided in addition to the fire-fighter's outfits required by the provisions of **10.10**. The protective clothing is to cover all skin, so that no part of the body is unprotected. <u>Protective clothing is to be selected taking into account the hazards associated with the chemicals being transported.</u>

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 January 2011.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date except for in cases where the amendments are to be retroactively applied.

(Note) The term "*a similar stage of construction*" means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 *tonnes* or 1%* of the estimated mass of all structural material, whichever is the less.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE

Part R Fire Protection, Detection and Extinction

2010 AMENDMENT NO.3

Notice No.116 27th December 2010
Resolved by Technical Committee on 6th July 2010

Notice No.116 27th December 2010
AMENDMENT TO THE GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

"Guidance for the survey and construction of steel ships" has been partly amended as follows:

Part R FIRE PROTECTION, DETECTION AND EXTINCTION

R1 GENERAL

R19 CARRIAGE OF DANGEROUS GOODS

R19.2 General Requirements

R19.2.1 Application

Sub-paragraph -1 has been amended as follows.

1 For the wording "limited quantities and excepted quantities" specified in **19.2.1-1, Part R of the Rules**, reference is to be made to chapter 3.4 and chapter 3.5 of the *IMDG* Code.

R19.2.2 Application for Categories of Cargo Spaces

Sub-paragraph -4 has been amended as follows.

4 The provisions of **19.2.2(7), Part R of the Rules** cover only those cargoes listed in ~~Appendix *B* of the *BC* Code~~ Group *B* of the *IMSBC* Code except cargoes of *MHB* (materials hazardous only in bulk). The carriage of other dangerous solid bulk cargoes is to be subject to acceptance by the Administrations involved.

R19.3 Special Requirements

R19.3.2 Sources of Ignition

Sub-paragraphs -1(2) and (3) have been amended as follows.

1 Applying to the requirements in **19.3.2, Part R of the Rules**, permitted electrical installations are to be in accordance with the followings.

(2) For ships carrying solid dangerous goods in bulk specified in **19.2.3~~(8), (9), (11)~~** or **~~(21)~~** **(9), (10), (13)** or **(23), Part R of the Rules** which may create explosive dust, the requirements in **Table R19.3.2-2** are to apply.

(3) For ships carrying solid dangerous goods in bulk specified in **19.2.3~~(10)~~ (12), Part R of the Rules** which may create explosive gas and ships carrying dangerous goods in a packaged form specified in **19.2.3(3)**, **~~(6)~~ (7)** (except the liquids of which flash point is less than -18℃), **~~(14)~~ (15)** or **~~(18)~~ (19), Part R of the Rules,** the requirements in **Table R19.3.2-3** are to apply.

（(3) to (9) are omitted）

R19.3.6 Personnel Protection

Sub-paragraph -1 has been amended as follows.

1 The full protective clothing specified in **19.3.6-1, Part R of the Rules** is for emergency purposes and consisting of a pair of gloves, boots, a protective clothing and helmet with goggles. When selecting the protective clothing the danger of the chemicals according to the class and liquid or gaseous state of intended cargoes is to be taken into account, referring to ~~Appendix *E* of the *BC* Code~~ Appendix 1 of the *IMSBC* Code for solid bulk cargoes and emergency procedures (*EmS*) of the Supplement to the *IMDG* Code for packaged goods.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 January 2011.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date except for in cases where the amendments are to be retroactively applied.

(Note) The term "*a similar stage of construction*" means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 *tonnes* or 1%* of the estimated mass of all structural material, whichever is the less.