RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part B Class Surveys

2008 AMENDMENT NO.1

Rule No.13 27th February 2008

Resolved by Technical Committee on 30th November 2007

Approved by Board of Directors on 25th December 2007

Rule No.13 27th February 2008
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 B CLASS SURVEYS

Amendment 1-1

Chapter 2 CLASSIFICATION SURVEYS

2.1 Classification Survey during Construction

2.1.2 Submission of Plans and Documents for Approval

Sub-paragraph -11 has been amended as follows.

1 When it is intended to build a ship to the classification with the Society, the following plans and documents are to be submitted for the approval by the Society before the work is commenced. Plan and documents may be subject to examination by the Society prior to the submission of an application for the classification of the ship in accordance with the requirements stipulated otherwise by the Society.
(Omit)

10 For ships to be provided with the operating and maintenance manual for the door and inner door in accordance with the requirements of **23.3.10-1** and **23.4.9-1, Part C** or **21.3.10-1** and **21.4.9-1, Part CS**, the operating and maintenance manual is to be submitted for approval by the Society.

11 For ~~ships subject to **Part CSR-T** and **CSR-B**~~ dedicated seawater ballast tanks of all type of ships of not less than 500 *gross tonnage* engaged on international voyages and double-side skin spaces arranged in bulk carriers engaged on international voyages of 150*m* in length and upwards as defined in **31A.1.2(1)**, **Part C**, the Coating Technical File is to be submitted for reviewed by the Society.

2.1.3 Submission of Other Plans and Documents

Sub-paragraph -1(3) has been amended as follows.

1 When it is intended to build a ship to the classification with the Society the following plans and documents are to be submitted, in addition to those required in **2.1.2**:
(1) Specifications for hull and machinery
(2) Calculation sheets for the minimum athwartship section modulus in way of the midship part

(3) Corrosion prevention scheme (Items included in the Coating Technical Files specified in **2.1.2-11** may be omitted.)
(4) Where provisions to be made for exceptional conditions of loading, plans showing the particulars of the cargo intended to be carried and its distribution

(Omit)

(13) Where materials which contain asbestos are used, documents including the location and other detailed information.

2.1.6 Documents to be maintained on board

Sub-paragraph -1(1)(l) has been amended as follows.

1 At the completion of a classification survey, the Surveyor confirms that the following drawings, plans, manuals, lists, etc., as applicable, of finished version are on board.
(1) Documents approved by the Society or their copies
(a) Operating and maintenance manuals for the door and inner door (**23.3.10** and **23.4.9, Part C** or **21.3.10** and **21.4.9, Part CS**)

(Omit)

(k) Programs for the examination and testing for membrane and semi-membrane tanks and internal insulation tanks (Note (*1) to **Table B5.27**)
(l) Coating Technical File (**25.2.2**, **Part C**, **22.4.2**, **Part CS**, **1.2.2 Section 5 Chapter 3**, **Part CSR-B** and **2.1.1.2 Section 6, Part CSR-T**)
(m) Plans and documents for in-water surveys (**6.1.2-2**)

Paragraph 2.1.8 has been amended as follows.

2.1.8 Verification of Coating Application

The following will be carried out by the Society prior to reviewing the Coating Technical File for the coatings of internal spaces subject to **25.2.2**, **Part C**, **22.4.2**, **Part CS**, **1.2.2 Section 5 Chapter 3**, **Part CSR-B** ~~and~~ or **2.1.1.2 Section 6, Part CSR-T**:

(1) Check that the Technical Data Sheet and Statement of Compliance or Type Approval Certificate comply with ~~*IMO Performance Standard for Protective Coatings*~~ *"PERFORMANCE STANDARD FOR PROTECTIVE COATINGS FOR DEDICATED SEAWATER BALLAST TANKS IN ALL TYPE OF SHIPS AND DOUBLE-SIDE SKIN SPACES OF BULK CARRIERS"* (*IMO Performance Standard for Protective Coatings / IMO* resolution *MEPC*.215(82) as may be amended), however, the Statement of Compliance or Type Approval Certificate is to be a certificate deemed appropriate by the Society;
(2) Check that the coating identification on representative containers is consistent with the coating identified in the Technical Data Sheet and Statement of Compliance or Type Approval Certificate in ~~-1~~**(1)** above;
(3) Check that the inspector is qualified in accordance with the qualification standards deemed appropriate by the Society;
(4) Check that the inspector's reports of surface preparation and the coating's application indicate compliance with the manufacturer's Technical Data Sheet and Statement of Compliance or Type Approval Certificate in ~~-1~~**(1)** above; and

(5) Monitor implementation of the coating inspection requirements deemed appropriate by the Society.

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 1 July 2008.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships other than ships that fall under the following:

(1) for which the building contract is placed on or after 1 July 2008; or

(2) in the absence of a building contract, the keels of which are laid or which are at *a similar stage of construction* on or after 1 January 2009; or

(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.

(3) the delivery of which is on or after 1 July 2012

Amendment 1-2

Chapter 3 ANNUAL SURVEYS

3.2 Annual Surveys for Hull, Equipment, Fire Extinction and Fittings

3.2.4 Internal Examinations of Spaces and Tanks

Sub-paragraph (2) has been amended as follows.

At Annual Surveys, following internal examinations **(1)** and **(2)** below are to be carried out.

(1) Spaces and Tanks listed in **Table B3.4**

(2) Suspect area identified at previous survey (excluding for cargo tanks of oil tankers ~~and~~, ships carrying dangerous chemicals in bulk and ships carrying liquefied gases in bulk)

3.2.6 Thickness Measurements

Sub-paragraph (2) has been amended as follows.

At Annual Surveys, following thickness measurements **(1)** and **(2)** below are to be carried out. As to the gauging equipment and thickness measurement report, the provisions of **5.2.6-1** are to be applied correspondingly as well.

(1) Spaces and Tanks listed in **Table B3.6**

(2) Suspect area identified at previous survey (excluding for cargo tanks of oil tankers ~~and~~, ships carrying dangerous chemicals in bulk and ships carrying liquefied gases in bulk)

Table B3.2 has been amended as follows.

Table B3.2 General Examination

Items	Examination
1 Shell plating 2 Weather deck plating	・General condition of outside of the hull above the load waterline is to be examined.
3 Openings on deck and outside of the hull	・General condition of coamings and closing appliances of hatchways on exposed deck and within unenclosed superstructures and side port, cargo port and side scuttles below the freeboard or superstructure deck is to be examined.
4 Casings of engine room	・General condition of exposed engine casings and their openings, skylights of boiler room and engine room and their closing appliances is to be examined.
5 Ventilators	・General condition of coamings and closing appliances of ventilators to spaces below the freeboard deck or the deck of enclosed superstructures is to be examined.
6 Air pipes	・General condition of air pipes on weather deck and their closing appliances is to be examined.
7 Watertight bulkhead and superstructure end bulkhead	・General condition of watertight doors, penetrations and stop valves on watertight bulkheads and closing appliances of openings on superstructure end bulkheads is to be examined.
8 Load line marks	・The indication of deck line and load line are to be checked.
9 Bulwark	・General condition of bulwarks and shutters of freeing ports in bulwarks or guard rails is to be examined.

10 Means of access	・General condition of permanent gangways or other means of access is to be examined.
11 Scuppers, inlets, other discharge pipes and valves	・General condition of scuppers, inlets, other discharge pipes and valves is to be examined as far as practicable.
12 Securing arrangement for on- deck timber	・General condition of securing arrangement for on-deck timber including eye plates, lashing wires, etc. is to be examined, in case where the arrangement has been approved by the Society.
13 Anchoring and mooring arrangement	・Anchoring and mooring arrangement including their accessories are to be examined as far as can be seen.
14 Fire extinguishing arrangement	・General condition of fire extinguishing arrangements is to be examined. And checking whether fixed fire extinguishing system, semi-portable or portable fire extinguishers and fireman's outfits are maintained in good order is to be made.
15 Fire protection arrangement and means of escape	・Checking that no alteration has been made to these arrangements is to be made.
16 Sails and their accessories	・Sails and their accessories are to be examined in the condition of being put in place and ready for unfolding.
17 Towing and mooring fittings	・General condition of the mark of Safe Working Load (*SWL*) on towing and mooring fittings specified in **27.2.2, 27.2.3, Part C** or **23.2.2, 23.2.3, Part CS** is to be examined.
18 Emergency towing arrangement	・For ships to be provided with the emergency towing arrangement in accordance with the requirement of **27.3**, **Part C**, general condition of the arrangements is to be examined.
19 Loading computer	・For ships to be provided with the computer in accordance with the requirement of **34.1.1** and **34.3.2, Part C**, checking whether the computer is maintained in good order is to be made.
20 Ship Identification Number	・For the ships required to be marked the ship's identification number, general condition of the arrangement is to be examined.
Additional Requirements for Tankers ~~and~~, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
21 Piping	・General condition of cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in cargo pump room, cargo compressor rooms and on weather decks is to be examined.
Additional Requirement for Bulk Carriers over 10 *years* of age	
22 Piping in the cargo holds	・All piping and penetrations in cargo holds, including overboard piping, are to be examined.
Additional Requirement for General Dry Cargo Ships of not less than 500 *gross tonnage* and over 15 *years* of age	
23 Piping in the cargo holds	・All piping and penetrations in cargo holds, including overboard piping, are to be examined.

Note)
Examination of suspect areas identified at previous surveys is to be carried out.

Table B3.4 has been amended as follows.

Table B3.4 Internal Examinations of Spaces and Tanks

Items	Examination
Requirements for cargo ships except those specially specified in the followings	
1 Engine room and boiler room	・An internal examination is to be carried out.
2 Ballast tanks	・For ships over 5 *years* of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last intermediate Survey or special survey, is to be carried out.
Requirements for Tankers ~~and~~, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Engine room and boiler room	・An internal examination is to be carried out.
2 Cargo ~~P~~pump rooms ~~and pipe spaces~~, other pump rooms adjacent to cargo tanks, cargo compressor rooms and cargo pipe tunnels	・An internal examination is to be carried out after thoroughly cleaned out and gas freed. Attention is to be paid to the sealing arrangements of all penetrations of bulkheads, ventilating arrangements, foundations and gland seals of pumps and compressors.
3 Ballast tanks	・For oil tankers ~~and~~, ships carrying dangerous chemicals in bulk and ships carrying liquefied gases in bulk over 5 *years* of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last intermediate Survey or special survey, is to be carried out. ・For oil tankers, other than double hull oil tankers, as defined in **B1.3.1 (12)**, over 5 *years* of age, an internal examination of all tanks adjacent (i.e. with a common plane boundary) to a tank with heating coils is to be carried out. However, where coating was found to be in GOOD condition at the previous Intermediate Survey or Special Survey may be specially considered at the discretion of the Surveyor. ・For double hull oil tankers, as defined in **B1.3.1 (12)** over 15 *years* of age, an internal examination of all tanks adjacent (i.e. with a common plane boundary) to a tank with heating coils is to be carried out. However, where coating was found to be in GOOD condition at the previous Intermediate Survey or Special Survey, the tank may be specially considered at the discretion of the Surveyor.
Requirements for Bulk Carriers other than Double Skin Bulk Carriers[*1]	
1 Engine room and boiler room	・An internal examination is to be carried out.
2 Ballast tanks	・For ships over 5 *years* of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last Intermediate Survey or Special Survey, is to be carried out.
3 Cargo holds	・For ships over 10 *years* of age, an internal examination of all cargo holds is to be carried out.
Requirements for Double Skin Bulk Carriers	
1 Engine room and boiler room	・An internal examination is to be carried out.
2 Ballast tanks	・For ships over 5 *years* of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last Intermediate Survey or Special Survey, is to be carried out.
3 Cargo holds	・For ships over 10 *years* and up to 15 *years* of age, an internal examination of two selected cargo holds is to be carried out. ・For ships over 15 *years* of age, an internal examination of all cargo holds is to be carried out.
Requirements for General Dry Cargo Ships of not less than 500 *gross tonnage*	
1 Engine room and boiler room	・An internal examination is to be carried out.
2 Ballast tanks	・For general dry cargo ships over 5 *years* of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last Intermediate Survey or Special Survey, is to be carried out.

3 Cargo holds	・For ships carrying timber cargoes over 5 *years* and up to 10 *years* of age, an internal examination of all cargo holds is to be carried out to check the condition of lower part of hold frames, lower brackets and lower part of transverse bulkheads. ・For general dry cargo ships over 10 *years* and up to 15 *years* of age, an internal examination of one forward and one after cargo hold (all cargo holds for ships carrying timber cargoes) and their associated tween deck spaces is to be carried out. ・For general dry cargo ships over 15 *years* of age, an internal examination of all cargo holds and their associated tween deck spaces is to be carried out.

Notes)

*1: For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.

Table B3.6 has been amended as follows.

Table B3.6 Thickness Measurements

Items	Note
Requirements for Cargo Ships except those specified in the followings	
1 Structural members in ballast tanks	・When extensive corrosion is found in the examination specified in **Table B3.4** which is required for ships over 5 *years* of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-2**.
Requirements for Tankers ~~and~~, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in cargo pump rooms and cargo compressor rooms and on weather decks	・When deemed necessary by the Surveyor as a consequence of the examination specified in **Table B3.2**, thickness measurements are to be carried out.
2 Structural members in ballast tanks	・When extensive corrosion is found in the examination of ballast tanks specified in **Table B3.4** which is required for oil tankers ~~and~~, ships carrying dangerous chemicals in bulk and ships carrying liquefied gases in bulk over 5 *years* of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-3**.
Requirements for Bulk Carriers	
1 Structural members in ballast tanks	・When extensive corrosion is found in the examination of ballast tanks specified in **Table B3.4** which is required for bulk carriers over 5 *years* of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-4**.
2 Hatch covers and hatch coamings 3 Structural members in cargo holds	・When deemed necessary by the Surveyor as a consequence of the internal examination/close-up survey required in **Table B3.4**/**Table B3.5**, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-4**.
Requirements for General Dry Cargo Ships of not less than 500 *gross tonnage*	
1 Structural members in ballast tanks	・When extensive corrosion is found in the examination of ballast tanks specified in **Table B3.4** which is required for general dry cargo ships over 5 *years* of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-5**.
2 Hatch covers and hatch coamings	・When deemed necessary by the Surveyor as a consequence of the close-up survey required in **Table B3.5**, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-5**.
3 Structural members in cargo holds	・For general dry cargo ships over 10 *years* of age, when deemed necessary by the Surveyor as a consequence of the internal examination required in **Table B3.4** and the close-up survey required in **Table B3.5**, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-5**.

Chapter 4 INTERMEDIATE SURVEYS

4.2 Intermediate Surveys for Hull, Equipment, Fire extinction and Fittings

Table B4.2 has been amended as follows.

Table B4.2 Internal Examinations of Spaces and Tanks

Items	Examinations
Requirements for cargo ships except those specially specified in the followings	
1 Engine room and boiler room	・ An internal examination is to be carried out.
2 Ballast tanks	・ For ships over 5 *years* and up to 10 *years* of age, an internal examination of representative ballast tanks is to be carried out. Where poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction, the examination is to be extended to other ballast tanks of the same type. ・ For ships over 10 *years* of age, an internal examination of all ballast tanks is to be carried out. ・ If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. ・ For ballast tanks where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied, excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals.
3 Cargo holds	・ For ships over 10 *years* of age, excluding ships solely carrying dry cargoes, an internal examination of selected cargo holds is to be carried out. ・ For ships over 15 *years* of age, an internal examination of one forward cargo hold and one after cargo hold is to be carried out.
Requirements for Tankers ~~and~~, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Engine room and boiler room	・ An internal examination is to be carried out.
2 Cargo pump rooms, other pump rooms adjacent to cargo tanks, cargo compressor rooms and cargo pipe tunnels	・ An internal examination is to be carried out after thoroughly cleaned out and gas freed. Attention is to be paid to the sealing arrangements of all penetrations of bulkheads, ventilating arrangements, foundations and gland seals of pumps and compressors.
~~2~~3 Ballast tanks	For Oil Tankers and Ships Carrying Dangerous Chemicals in bulk: ・ For ships over 5 *years* and up to 10 *years* of age, an internal examination of representative ballast tanks is to be carried out. For oil tankers except Double hull oil tankers, an internal examination of all ballast tanks is to be carried out. ・ If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. ・ Where a poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction, the examination is to be extended to other ballast tanks of the same type. ・ As a result of internal examinations, ballast tanks with conditions shown in (a) to (b) require an internal examination to be carried out at annual intervals. (a) The protective coating is found to be in POOR condition and it is not repaired to the satisfaction of the surveyor. (b) The protective coating has not been applied from the time of construction or the soft coating has been applied, the examination is to be extended to other ballast tanks of the same type.

	For Ships Carrying Liquefied Gases in bulk: ・ For ships over 5 *years* and up to 10 *years* of age, an internal examination of representative ballast tanks is to be carried out. ・ For ships over 10 *years* of age, an internal examination of all ballast tanks is to be carried out. ・ If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. ・ For ballast tanks where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied, excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals.
Requirements for Bulk Carriers	
1 Engine room and boiler room	・ An internal examination is to be carried out.
2 Ballast tanks	・ For ships over 5 *years* and up to 10 *years* of age, an internal examination of representative ballast tanks and combined cargo/ballast tanks, if any, is to be carried out. Where poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction, the examination is to be extended to other ballast tanks of the same type. ・ If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. ・ For ballast tanks where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied, excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals.
3 Cargo holds	・ For ships over 5 *years* of age, an internal examination of all cargo holds is to be carried out.
Requirements for General Dry Cargo Ships of not less than 500 *gross tonnage*	
1 Engine room and boiler room	・ An internal examination is to be carried out.
2 Ballast tanks	・ Same as those for cargo ships
3 Cargo holds	・ For general dry cargo ships over 5 *years* and up to 10 *years* of age, an internal examination of one forward and one after cargo hold (all cargo holds for ships carrying timber cargoes) and their associated tween deck spaces is to be carried out. ・ For general dry cargo ships over 10 *years* of age, an internal examination of all cargo holds and their associated tween deck spaces is to be carried out.

Notes)

(1) The wording “representative ballast tanks” means ballast tanks which include, at least, fore and aft peak tanks and two (for double skin bulk carriers, three) deep tanks within cargo length area.

Table B4.3 has been amended as follows.

Table B4.3 Close-up Surveys

Items	Examinations
Requirements for Ships Carrying Liquefied Gases in bulk	
1 Ballast tanks	・For ships over 10 *years* of age and up to 15 *years* of age, close-up surveys of the following portions are to be carried out: (1) All web frames[*1] and both transverse bulkheads[*2] in a representative ballast tank (2) The upper part of one web frame and one transverse bulkhead[*2] in another representative ballast tank ・For ships over 15 *years* of age, close-up surveys of all web frames[*1] and both transverse bulkheads[*2] in two representative ballast tanks are to be carried out. ・Notwithstanding the above, for ships having independent tanks of type *C*, with a midship section similar to that of a general cargo ship, the extent of close-up surveys may be specially considered at the discretion of the Surveyor.
Requirements for Bulk Carriers other than Double Skin Bulk Carriers[*1]	
1 Hatch covers and hatch coamings	・A close-up survey of all hatch cover plating and all hatch coaming plating and their stiffeners is to be carried out.
2 Structural members in cargo holds	
.1 Hold frames including their upper and lower end attachments, adjacent shell plating	・For ships over 5 *years* of age, close-up survey of sufficient extent, minimum 25% of frames, is to be carried out to establish the condition of shell frames including their upper and lower end attachments and adjacent shell plating in the forward cargo hold and one other selected cargo hold. Where considered necessary by the Surveyor as a result of the internal examination and close-up survey, the survey is to be extended to include a close-up survey of all of the shell frames and adjacent shell plating of that cargo hold as well as a close-up survey of sufficient extent, minimum 25% of frames, of all remaining cargo holds.
.2 Transverse bulkheads	・For ships over 5 *years* of age, a close-up survey is to be carried out to establish the condition of transverse bulkheads in the forward cargo hold and one other selected cargo hold.
.3 Other structural members	・Where considered necessary by the Surveyor as a result of the internal examination required in **Table B4.2**, a close-up survey is to be carried out.
Requirements for Double Skin Bulk Carriers	
1 Hatch covers and hatch coamings	・A close-up survey of all hatch cover plating and all hatch coaming plating and their stiffeners is to be carried out.
2 Structural members in cargo holds	・Where considered necessary by the Surveyor as a result of the internal examination required in **Table B4.2**, a close-up survey is to be carried out.
Requirements for General Dry Cargo Ships of not less than 500 *gross tonnage*	
1 Hatch covers and hatch coamings	・Close-up survey of hatch cover plating and hatch coaming plating and their stiffeners is to be carried out.
2 Structural members in cargo holds	
.1 Lower part of shell frames and their lower end brackets	・For ships carrying timber cargoes over 5 *years* of age, a close-up survey of structures listed in left columns in all cargo holds is to be carried out.
.2 Lower parts of transverse bulkheads	
.3 Lower parts (located on inner bottom platings) of pipes through cargo holds such as air pipes, sounding pipes, etc.	

Note)

*1: Including structural members adjacent to cross ties and/or transverse web frame rings, such as shell plating, longitudinal bulkheads, longitudinal stiffeners, brackets

*2: Including vertical and horizontal girders and adjacent structural members, and adjacent longitudinal bulkhead structure

*~~1~~3: For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.

Table B4.4 has been amended as follows.

Table B4.4 Thickness measurements

Items	Note
Requirements for Cargo Ships over 5 *years* of age except those specified in the followings	
1 Structural members in ballast tanks	・Where considered necessary by the Surveyor as a result of the survey specified in **Table B4.2**, the thickness measurement is to be carried out at the discretion of the Surveyor, where poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction. ・Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-2**.
Requirements for ~~Oil~~ Tankers ~~and~~, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in cargo pump rooms and cargo compressor rooms and on weather decks	・When deemed necessary by the Surveyor as a consequence of the examination specified in **4.2.2**, thickness measurements are to be carried out.
2 Structural members in ballast tanks (for ships over 5 *years* of age)	・Where considered necessary by the Surveyor as a result of the survey specified in **Table B4.2**, the thickness measurement is to be carried out at the discretion of the Surveyor, where poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction. ・If the results of thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements is to be increased in accordance with the provision of **5.2.6-3.**
3 Structural members in cargo tanks ~~(for ships over 5 *years* of age)~~	・For ships over 5 *years* of age (excluding ships carrying liquefied gases in bulk), ~~I~~if the results of thickness measurements specified in **4.2.6** indicate that substantial corrosion is found, the extent of thickness measurements is to be increased in accordance with the provision of **5.2.6-3.**
Requirements for the Bulk Carriers over 5 *years* of age	
1 Structural members in ballast tanks	・Where considered necessary by the Surveyor as a result of the survey specified in **Table B4.2**, the thickness measurement is to be carried out at the discretion of the Surveyor, where poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction ・If the results of thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements is to be increased in accordance with the provision of **5.2.6-4**.
2 Hatch covers and hatch coamings	・Where considered necessary by the Surveyor as a result of the close-up survey of the bulk carriers specified in **Table B4.3**, the thickness measurements are to be carried out at the discretion of the Surveyor. If the results of thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements is to be increased in accordance with the provision of **5.2.6-4**.

3 Structural members in cargo holds	・ The thickness measurements are to be carried out to an extent to determine both general and local corrosion levels at area subject to close-up survey. ・ The thickness measurement may be dispensed with provided the Surveyor is satisfied by the close-up survey, that there is no structural diminution and the protective coating where fitted were remains effective. ・ If the results of thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements is to be increased in accordance with the provision of **5.2.6-4**.
Requirements for General Dry Cargo Ships of not less than 500 *gross tonnage*	
1 Structural members in ballast tanks	・ Where considered necessary by the Surveyor as a result of the survey specified in **Table B4.2**, the thickness measurement is to be carried out at the discretion of the Surveyor, where poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction. ・ If the results of thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements is to be increased in accordance with the provision of **5.2.6-5**.
2 Hatch covers and hatch coamings	・ When deemed necessary by the Surveyor as a consequence of the close-up survey required in **Table B4.3**, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-5**.
3 Structural members in cargo holds	1 For ships carrying timber cargoes over 5 *years* of age ・ The thickness measurement of structural members subject to close-up survey in all cargo holds is to be carried out to the same extent as previous Special Survey. ・ The thickness measurement may be dispensed with provided the Surveyor is satisfied by the close-up survey, that there is no structural diminution and the protective coating where fitted remains effective. 2 For general dry cargo ships over 10 *years* of age (excluding ships carrying timber cargoes) ・ When deemed necessary by the Surveyor as a consequence of the internal examination required in **Table B4.2**, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-5**.

Chapter 5 SPECIAL SURVEYS

5.2 Special Surveys for Hull, Equipment, Fire extinction and Fittings

Paragraph 5.2.2 has been amended as follows.

5.2.2 General Examination

1 At Special Surveys, all bilge and ballast piping systems in addition to hull, equipment, fire-extinction and fittings specified in **4.2.2** are to be examined carefully. Automatic air pipe heads which are located on exposed deck are to be examined carefully.

2 At Special Surveys for tankers and ships carrying dangerous chemicals in bulk, in addition to **-1,** cargo piping, vent piping, purging piping, gas free piping, inert gas piping and all other piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as ~~ballast tanks,~~ pump rooms, pipe tunnels, cofferdams, and void spaces and on weather decks are to be examined.

3 At Special Surveys for ships carrying liquefied gases in bulk, in addition to **-1,** cargo piping, vent piping, purging piping, gas free piping, inert gas piping and all other piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams, and void spaces and on weather decks are to be examined.

~~3~~**4** In Special Surveys for bulk carriers and for general dry cargo ships of not less than 500 *gross tonnage*, in addition to **-1**, all piping systems within all cargo holds, all ballast tanks~~,~~ and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams and void spaces ~~bounding cargo holds~~, and on the weather deck are to be examined.

5.2.3 Performance Test

Sub-paragraph -2 has been amended as follows.

1 At Special Surveys, performance tests specified in **4.2.3** are to be carried out, and in addition to such performance tests, it is to be confirmed that the loading instrument required in **34.1.1** and **34.3.2, Part C** works in order. In applying the requirements for performance tests specified in **4.2.3**, and it is not allowed to dispense with performance tests for mooring and anchoring arrangements specified in item 3 in **Table B4.1**.

2 In addition to the above **-1**, performance tests and operation tests are to be carried out in specified through **(1)** to **(~~6~~7)** below.

(1) Operation test for all mechanically operated hatch covers

(2) Hose test listed in **Table 2.1** or equivalent, for all weathertight hatch covers

(3) Performance test and operation test for all bilge and ballast piping system

(4) For oil tankers and ships carrying dangerous chemical in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as ~~ballast tanks,~~ pump rooms, pipe tunnels, cofferdams and void spaces, and on weather deck

(5) For ships carrying liquefied gases in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces, and on weather deck

(~~5~~6) For bulk carriers and general dry cargo ships of 500 *gross tonnage*, performance test and operation test of all piping systems within cargo holds ~~and~~, all ballast tanks~~,~~ and all tanks

and spaces bounding cargo holds such as pipe tunnels, cofferdams, void spaces and other similar spaces bounding cargo holds, and those on weather decks

(~~6~~7) Performance test listed in item 1 in **Table B4.1,** for all water level detection and alarm systems.

3 Where considered necessary by the Surveyor, an execution of the inclining test and an alteration of the stability information may be required.

Paragraph 5.2.4 has been amended as follows.

5.2.4 Internal Examinations of Spaces and Tanks

1 At Special Surveys, paying due attention to **(1)** through **(7)** below, examinations of structures and fittings such as piping, etc. in tanks and spaces are to be carried out carefully.

(1) Structural members, piping, hatch covers, etc. sensitive to corrosion in the cargo holds where high-corrosive cargoes to steel such as logs, salt, coal, sulfide ore, etc. have been loaded.

(2) Portions sensitive to wearing down by heat such as plating under boilers

(3) Structurally discontinuous portions such as corners of hatchway openings on deck, openings including side scuttles, cargo port, etc. on shell

(4) Condition of coating and corrosion prevention system if applied

(5) Condition of striking plates under sounding pipes

(6) Condition of cement or deck composition, if fitted

(7) Locations on which defects such as cracking, buckling, corrosion, etc. have been found in similar ships or similar structures

2 At Special Surveys, paying attention to **-1** above, internal examinations of tanks or spaces listed in **Table B5.1** are to be carried out. In case where postponement of the Special Survey for a ship is granted in accordance with the requirements in **1.1.5**, a kind of the Special Survey to be applied to the ship is to be determined based on the original expiry date of the Classification Certificate of the ship.

3 At Special Surveys for tankers and ships carrying dangerous chemicals in bulk, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.2** is to be carried out. Tanks and spaces identified as suspect areas at previous surveys are to be examined. Coating condition in ballast tanks for oil tankers and ships carrying dangerous chemicals in bulk is defined by the Society. However, for ships carrying dangerous chemicals in bulk, stainless steel tanks may be exempted from internal examinations where deemed appropriate by the Society.

4 At Special Surveys for ships carrying liquefied gases in bulk, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.2** is to be carried out.

~~4~~5 At Special Surveys for bulk carriers, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.3** is to be carried out. Tanks and spaces identified as suspect areas at previous surveys are to be examined.

~~5~~6 At Special Surveys for general dry cargo ships of not less than 500 *gross tonnage*, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.4** is to be carried out.

Paragraph 5.2.5 has been amended as follows.

5.2.5 Close-up Surveys

1 At Special Surveys, a Close-up Survey is to be carried out for portions shown through **(1)** to **(3)** below:

(1) Lower parts of shell frames, tank side brackets and lower parts of transverse bulkheads

(2) Lower parts(located on inner bottom plating) of air pipes, sounding pipes, etc.

(3) All hatch cover platings and hatch coaming platings

2 At Special Surveys for oil tankers and ships carrying dangerous chemicals in bulk, in addition to the provision of **-1** above, a Close-up Survey is to be carried out for structural members and so forth listed in **Table B5.5-1**.

3 At Special Surveys for ships carrying liquefied gases in bulk, in addition to the provision of **-1** above, a Close-up Survey is to be carried out for structural members and so forth listed in **Table B5.5-2**.

~~**3**~~**4** At Special Surveys for bulk carriers, in addition to the provision of **-1** above, a Close-up Survey is to be carried out for structural members and so forth listed in **Table B5.6-1**. For ore carriers, a Close-up Survey ~~for the structural members in wing ballast tanks~~ is to be carried out in accordance with requirements for those in **Table B5.~~5~~6-2** instead of in **Table B5.6-1**.

~~**4**~~**5** At Special Surveys for general dry cargo ships of not less than 500 *gross tonnage*, in addition to the provision of **-1** above, a Close-up Survey is to be carried out for structural members and so forth listed in **Table B5.7**.

Paragraph 5.2.6 has been amended as follows.

5.2.6 Thickness Measurements

1 At Special Surveys, thickness measurement is to be carried out in accordance with **(1)** through **(5)** below.

(1) Thickness measurement is to be carried out using an appropriate ultra-sonic gauging machines or other approved means. The accuracy of the equipment is to be proven to the Surveyor as required.

(2) Thickness measurement is to be carried out within 12 *months* prior to completion of the survey in question under the attendance of the Surveyor by the firm approved by the Society under the "**Rules for Approval of Manufactures and Service Suppliers**" or equivalent firm. The surveyor may re-check the measurements as deemed necessary to ensure acceptable accuracy.

(3) The extended thickness measurements are to be carried out before the survey is credited as completed.

(4) A thickness measurement record is to be prepared and submitted to the Society.

(5) Thickness measurements of structures in areas where close-up surveys are required are to be carried out simultaneously with close-up surveys.

2 At Special Surveys, a thickness measurement is to be carried out according to **-1** above for structural members and so forth listed in **Table B5.8**. Where substantial corrosion is found in the results of such thickness measurements, the thickness measurement is to be extended to all the structural members listed in **Table B5.9**, of which the sub-title corresponds to substantially corroded members.

3 At Special Surveys for oil tankers and ships carrying dangerous chemicals in bulk, notwithstanding to the provision of **-2** above, a thickness measurement is to be carried out for structural members and so forth listed in **Table B5.10-1**, and tanks and spaces identified as suspect areas at previous surveys, according to **-1** above. Stainless steel hull structure and piping except for clad steel may be exempted from thickness measurements where deemed appropriate by the Society. Where substantial corrosion is found in the results of such thickness measurements, the thickness measurement is to be extended to all the structural members listed in the table among **Table B5.11** through **Table B5.14**, of which the sub-title corresponds to substantially corroded members.

4 At Special Surveys for ships carrying liquefied gases in bulk, notwithstanding to the provision of **-2** above, a thickness measurement is to be carried out for structural members and so

forth listed in **Table B5.10-2** according to **-1** above. Where substantial corrosion is found in the results of such thickness measurements, the thickness measurement is to be expanded to all the structural members listed in the **Table B5.9**, of which the sub-title corresponds to substantially corroded members. For ships having independent tanks of type *C*, with a midship section similar to that of a general cargo ship, the extent of thickness measurements may be increased to include the tank top plating at the discretion of the Surveyor.

~~4~~5 At Special Surveys for Bulk Carriers, notwithstanding the provision of **-2** above, a thickness measurement is to be carried out according to **-1** above ~~out~~ for structural members and so forth listed in **Table B5.15** and tanks and spaces identified as suspect areas at previous surveys. Where substantial corrosion is found in the results of such thickness measurements, the thickness measurement is to be expanded to all the structural members listed in the table among **Table B5.16** through **Table B5.20**, of which the sub-title corresponds to substantially corroded members.

~~5~~6 At Special Surveys for general dry cargo ships of not less than 500 *gross tonnage*, notwithstanding the provision of **-2** above, a thickness measurement is to be carried out according to **-1** above for structural members and so forth listed in **Table B5.21**. Where substantial corrosion is found in the results of such thickness measurements, the thickness measurement is to be expanded to all the structural members listed in the **Table B5.9**, of which the sub-title corresponds to substantially corroded members.

~~6~~7 The ship's longitudinal strength is to be evaluated by using the thickness of structural members measured in transverse sections specified in **Table B5.8**, **Table B5.10**, **Table B5.15** and **Table B5.21**.

Paragraph 5.2.7 has been amended as follows.

5.2.7 Pressure Tests

1 At Special Surveys, a pressure test of tanks is to be carried out according to (1) through (3) below.

(1) A pressure test is to be carried out under the pressure as specified below:
  (a) For tanks: the pressure corresponding to the maximum head that can be experienced in service
  (b) For piping: the working pressure

(2) A pressure test of tanks may be carried out when the ship is afloat, provided that an internal examination of bottom of the tank is also carried out afloat.

(3) At Special Surveys for ships having many water tanks and oil tanks, some water tanks or oil tanks may be exempted from a pressure test where deemed appropriate by the Surveyor taking account of present ship's condition, ship's age and an interval from the previous testing.

2 At Special Surveys for cargo ships, a pressure test is to be carried out according to **-1** above for tanks listed in **Table B5.22**.

3 At Special Surveys for tankers and ships carrying dangerous chemicals in bulk, notwithstanding the provision of **-2** above, a pressure test is to be carried out for tanks listed in **Table B5.23-1**.

4 At Special Surveys for ships carrying liquefied gases in bulk, notwithstanding the provision of **-2** above, a pressure test is to be carried out for tanks listed in **Table B5.23-2**.

~~4~~5 At Special Survey for bulk carriers and dry cargo ships of not less than 500 *gross tonnage*, notwithstanding the provision of **-2** above, a pressure test is to be carried out according to **-1** above for tanks listed in **Table B5.24**.

Table B5.2 has been amended as follows.

Table B5.2 Additional requirements of internal examinations for tankers and ships carrying dangerous chemicals in Bulk

Special Surveys	Tanks and spaces Subject to an examination	Notes
All Special Surveys	1 All cargo tanks (excluding those in ships carrying liquefied gases in bulk)	~~・Tanks and spaces identified as suspect areas at previous surveys are to be examined.~~ ・For oil tankers, combined cargo/ballast tanks, if any, are to be examined carefully taking account of ballast history and the extent of the corrosion prevention system provided. ・For oil tankers, condition of the inner surface of the bottom plating of the tank is to be examined in order to ascertain that the there is no excessive pitting of the plating. ・For oil tankers, bell mouths of the cargo suction pipes are to be removed to enable examination of the bottom plating of the tank and bulkheads in that vicinity as considered necessary by the Surveyor.
	2 All ballast tanks, and all tanks and spaces adjacent to cargo tanks (~~ballast tanks,~~ pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces)	For tankers and ships carrying dangerous chemicals in bulk: ~~・Tanks and spaces identified as suspect areas at previous surveys are to be examined.~~ ・As a result of internal examinations, ballast tanks with conditions shown in (a) to (b) require an internal examination to be carried out at annual intervals. (a) The protective coating is found to be in POOR condition and it is not repaired to the satisfaction of the surveyor. (b) The protective coating has not been applied from the time of construction or the soft coating has been applied, the examination is to be extended to other ballast tanks of the same type. ・An internal examination of pump room is to be carried out carefully paying attention to the sealing arrangements of all penetrations of bulkheads, ventilating arrangements, foundations and gland seals of pumps.
		For ships carrying liquefied gases in bulk: ・For ballast tanks, excluding double bottom tanks, where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied from the time of construction, an internal examination is to be carried out at annual intervals. For ballast double bottom tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals. ・Ballast tanks converted to void spaces are to be examined applying the provisions for ballast tanks correspondingly.

Table B5.3 has been amended as follows.

Table B5.3 Additional Requirements of internal examinations for Bulk Carriers

Special Surveys	Tanks and spaces Subject to an examination	Notes
All Special Surveys	1 All ballast tanks, and all tanks and spaces adjacent to cargo holds (~~ballast tanks,~~ pipe tunnels, cofferdams and void spaces)	~~・Tanks and spaces identified as suspect areas at previous surveys are to be examined.~~ ・For ballast tanks, excluding double bottom tanks, where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied from the time of construction, an internal examination is to be carried out at annual intervals. For ballast double bottom tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals. ・Ballast tanks converted to void spaces are to be examined applying the provisions for ballast tanks correspondingly.

Table B5.4 has been amended as follows.

Table B5.4 Additional Requirements of internal examinations for general dry cargo ships of not less than 500 *gross tonnage*

Special Surveys	Tanks and spaces Subject to an examination	Notes
All Special Surveys	1 All cargo holds	
	2 All ballast tanks, and all tanks and spaces adjacent to cargo holds (~~ballast tanks,~~ pipe tunnels, cofferdams and void spaces)	・For ballast tanks where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied, excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals. ・Ballast tanks converted to void spaces are to be examined applying the provisions for ballast tanks correspondingly.

Table B5.5 has been renumbered to B5.5-1.

Table B5.5-2 has been added as follows.

Table B5.5-2 Requirements of Close-up Surveys for Ships Carrying Liquefied Gases in Bulk

Special Survey	Structural members subject to the Close-up Survey
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. One web frame ring in a representative ballast tank[*1] (A) 2. Lower part of one transverse bulkhead in a ballast tank[*2] (C)
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. All web frame rings in a ballast tank, which is to be a double hull side tank or a topside tank (If such tanks are not fitted another ballast tank is to be selected.[*2]) (A) 2. One web frame rings in each remaining ballast tank (A) 3. One transverse bulkhead in each ballast tank (B)
Special Survey for ships over 10 *years* of age (Special Survey No.3 and subsequent Special Surveys)	1. All web frame rings in all ballast tanks (A) 2. All transverse bulkheads in all ballast tanks (B)

Note) Abbreviations in this table mean:

(A): Cross Ties and complete transverse web frame rings including adjacent structural members such as shell plating, longitudinal bulkheads, longitudinal stiffeners, brackets, etc.

(B): Including vertical and horizontal girders, adjacent structural members and adjacent longitudinal bulkhead structure

(C): Including vertical and horizontal girders and adjacent structural members

*1: One ballast tank is to be selected from ballast tanks consisting of topside, double hull side and hopper side. Even if the aforementioned portions are separated tanks, they are to be considered as one ballast tank.

*2: One ballast tank can be selected from ballast tanks including peak tanks.

*3: For ships having independent tanks of type *C*, with a midship section similar to that of a general cargo ship, the extent of close-up surveys may be specially considered at the discretion of the Surveyor.

Table B5.6 has been renumbered to B5.6-1 and amended as follows.

Table B5.6-1 Requirements of Close-up Surveys for Bulk Carriers (excluding Ore Carriers)

Special Survey	Structural members subject to Close-up Survey
Requirements for Bulk Carriers other than Double Skin Bulk Carriers[*1]	
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. All shell frames in all cargo holds including their end attachments and adjacent shell plating (A) 2. Two selected cargo hold transverse bulkheads and lower part of remaining transverse bulkheads (including stiffeners and girders) (C) 3. One transverse web with associated plating and longitudinals in two representative ballast tanks of each type (topside or bilge hopper tank) (B) 4. Air pipes and sounding pipes in cargo holds : in way of tank top
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. All shell frames in all cargo holds including their end attachments and adjacent shell plating (A) 2. All transverse bulkheads (including stiffeners and girders) in all cargo holds (C) 3. About half of transverse webs with associated plating and longitudinals, and upper and lower parts of each bulkhead in a representative ballast tank of each type (topside or bilge hopper tank) (B) 4. One transverse web with associated plating and longitudinals in each of the remaining ballast tanks (B) 5. Both forward and aft transverse bulkheads (including stiffeners and girders) in one ballast tank (B) 6. All deck plating and under deck structure inside line of hatch openings between cargo hold hatches ~~(D)~~ 7. Structural members specified in 4. in the column of Special Survey No.1
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. All shell frames in all cargo holds including their end attachments and adjacent shell plating (A) 2. All transverse bulkheads (including stiffeners and girders) in all cargo holds (C) 3. All transverse webs with associated plating and longitudinals and all transverse bulkheads (including stiffeners and girders) in each ballast tank (B) 4. Structural members specified in 6. and 7. in the column of Special Survey No.2
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. As Special Survey No.3
Requirements for Double Skin Bulk Carriers (excluding Ore Carriers)	
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. Two selected cargo hold transverse bulkheads and lower part of remaining transverse bulkheads (including stiffeners and girders) (C) 2. One transverse web with associated plating and longitudinals in two representative ballast tanks of each type (This is to include the foremost topside and double side ballast tanks on either side) (B) 3. Air pipes and sounding pipes in cargo holds : in way of tank top
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. One transverse bulkhead in each cargo hold and lower part of remaining transverse bulkheads (including stiffeners and girders) (C) 2. About half of transverse webs with associated plating and longitudinals in a representative ballast tank of each type (topside, bilge hopper or side tank) (B) 3. One transverse web with associated plating and longitudinals in each of the remaining ballast tanks (B) 4. Both forward and aft transverse bulkheads (including stiffeners and girders) in a transverse section including topside, bilge hopper and double side ballast tanks (B) 5. Sufficient number (at least 1/4 of total number) of stiffeners on side shell or longitudinal bulkhead at a fore/middle/aft part of both sides in the foremost double side tanks (A) 6. All deck plating and under deck structure inside line of hatch openings between cargo hold hatches ~~(D)~~ 7. Structural members specified in 3. in the column of Special Survey No.1
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. All transverse bulkheads (including stiffeners and girders) in all cargo holds (C) 2. All transverse webs with associated plating and longitudinals and all transverse bulkheads (including stiffeners and girders) in each ballast tank (B) 3. Sufficient number (at least 1/4 of total number) of stiffeners on side shell or longitudinal bulkhead at a fore/middle/aft part of both sides in all double side tanks (A) 4. Structural members specified in 6. and 7. in the column of Special Survey No.2

Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. all stiffeners on side shell or longitudinal bulkhead in all double side tanks (A) 2. Structural members specified in 1., 2. and 4. in the column of Special Survey No.3

Notes)

(1) Abbreviations in this table mean:

(A): Cargo hold transverse frames, or stiffeners on side shell or longitudinal bulkhead in double side tanks

(B): Transverse web frame ring or watertight transverse bulkhead in fore and aft peak, topside, bilge hopper and double side ballast tanks including adjacent structural members

(C): ~~Cargo hold transverse bulkheads plating, stiffeners and girders~~ Including plating and internal structures of lower and upper stools, where fitted

~~D): Deck plating and under deck structure inside line of hatch openings between cargo hold hatches~~

(2) Close-up Surveys of transverse bulkheads are to be carried out at least at four levels as specified as follows:

(i) Immediately above the inner bottom and immediately above the line of gussets (if fitted) and shedders for ships without lower stool.

(ii) Immediately above and below the lower stool shelf plate (for those ships fitted with lower stools), and immediately above the line of the shedder plates.

(iii) About mid-height of the bulkhead.

(iv) Immediately below the upper deck plating and immediately adjacent to the upper wing tank, and immediately below the upper stool shelf plate for those ships fitted with upper stools, or immediately below the topside tanks.

(3) A double side tank of double skin bulk carriers is to be considered as a separate tank even if it is in connection to either the topside tank or the bilge hopper tank.

*1: For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.

Table B5.6-2 has been added as follows.

Table B5.6-2 Requirements of Close-up Surveys for Ore Carriers

Special Survey	Structural members subject to Close-up Survey
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. One web frame rings in a ballast wing tank (A) 2. Lower part of one transverse bulkhead in a ballast wing tank (D) 3. Two selected cargo hold transverse bulkheads and lower part of remaining transverse bulkheads (including stiffeners and girders) (E) 4. Air pipes and sounding pipes in cargo holds in way of tank top
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. All web frame rings in a ballast wing tank (A) 2. One deck transverse in each remaining ballast tank (B) 3. Forward and aft transverse bulkheads in a ballast wing tank (C) 4. Lower part of one transverse bulkhead in each remaining ballast tank (D) 5. One transverse bulkhead in each cargo hold and lower part of remaining transverse bulkheads (including stiffeners and girders) (E) 6. All deck plating and under deck structure inside line of hatch openings between cargo hold hatches 7. Air pipes and sounding pipes in cargo holds in way of tank top
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. All web frame rings in each ballast tank (A) 2. All transverse bulkheads in each ballast tank (C) 3. One web frame ring in all in each wing void space (A) However, additional close-up surveys may be carried out for other web frame rings in void spaces as deemed necessary by the Surveyor. 4. All transverse bulkhead in each cargo hold (including stiffeners and girders) (E) 5. All deck plating and under deck structure inside line of hatch openings between cargo hold hatches 6. Air pipes and sounding pipes in cargo holds in way of tank top
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. As for Special Survey No.3

Notes)

(1) Abbreviations in this table mean:

(A): Cross Ties and complete transverse web frame rings including adjacent structural members such as shell plating, longitudinal bulkheads, longitudinal stiffeners, brackets, etc.

(B): Including deck structures adjacent to deck transverse such as deck plating, longitudinal stiffeners, brackets, etc.

(C) and (D): Including vertical and horizontal girders, and adjacent structural members such as longitudinal bulkheads, inner bottom plating, hopper plating, bottom girders, brackets, stiffeners, etc.

(E): Including plating and internal structures of lower and upper stools, where fitted

(2) Close-up Surveys of transverse bulkheads are to be carried out at least at four levels as specified as follows:

(i) Immediately above the inner bottom and immediately above the line of gussets (if fitted) and shedders for ships without lower stool.

(ii) Immediately above and below the lower stool shelf plate (for those ships fitted with lower stools), and immediately above the line of the shedder plates.

(iii) About mid-height of the bulkhead.

(iv) Immediately below the upper deck plating and immediately adjacent to the upper wing tank, and immediately below the upper stool shelf plate for those ships fitted with upper stools, or immediately below the topside tanks.

Table B5.10 has been renumbered to B5.10-1.

Table B5.10-2 has been added as follows.

Table B5.10-2 Requirements of Thickness Measurements for Ships Carrying Liquefied Gases in Bulk

Special Surveys	Structural members and so forth subject to thickness measurement
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. Suspect area 2. One transverse section of deck plating for the hull beam of the ship within 0.5*L* amidships in way of a ballast tank, if any 3. Structural members subject to close-up survey for general assessment and recording of corrosion pattern
Special Survey for ships over 5 years and up to 10 *years* of age (Special Survey No.2)	1. Suspect area 2. Within the cargo area: (1) Each deck plate (2) One transverse section within 0.5L amidships in way of a ballast tank, if any 3. Structural members subject to close-up survey for general assessment and recording of corrosion pattern 4. Selected wind and water strakes outside the cargo area
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. Suspect area 2. Within the cargo area (1) Each deck plating (2) Two transverse sections. At least one section is to include a ballast tank within 0.5*L* amidships, if any. (3) All wind and water strakes 3. Structural members subject to close-up survey for general assessment and recording of corrosion pattern 4. Selected wind and water strakes outside the cargo area
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. Suspect area 2. Within the cargo area: (1) Each deck plate (2) Three transverse sections. At least one section is to include a ballast tank within 0.5*L* amidships, if any. (3) Each bottom plate (4) Duct keel plating and internals 3. Structural members subject to close-up survey for general assessment and recording of corrosion pattern 4. All wind and water strakes

The title of Table B5.16 has been amended as follows.

Table B5.16 Requirements of Additional Thickness Measurements for Bulk Carriers (Shell Structures for Cargo Holds of Single Side Skin, or Structures in Double Side ~~Ballast Tanks~~ Skin Spaces including Wing Void Spaces in Ore Carriers)

Structural member	Extent of Measurement	Pattern of Measurement
For cargo holds of single side skin		
1. Bottom and Side Shell Plating	a. Suspect plate, plus four adjacent plates b. See other tables for particulars on gauging in way tanks and cargo holds	a. 5 point pattern for each panel between longitudinals
2. Bottom/Side Shell Longitudinals	Minimum of three longitudinals in way of suspect areas	3 measurements in line across web 3 measurements on flange
For cargo holds of double side skin		
1. Side shell and inner plating:		
・upper strake and strakes in way of horizontal girders	・Plating between each pair of transverse frames/longitudinals in a minimum of three bays (along the tank)	・Single measurement
・all other strakes	・Plating between every third pair of longitudinals in same three bays	・Single measurement
2. Side shell and inner side transverse frames/longitudinals on:		
・upper strake	・Each transverse frame/longitudinal in same three bays	・Three measurements across web and 1 measurement on flange
・all other strakes	・Every third transverse frame/longitudinal in same three bays	・Three measurements across web and 1 measurement on flange
3. Transverse frames/longitudinals - brackets	Minimum of three at top, middle and bottom of tank in same three bays	Five-point pattern over area of bracket
4. Vertical web and transverse bulkheads:		
・strakes in a way of horizontal girders	・Minimum of two webs and both transverse bulkheads	・Five-point pattern over approx. two square metre area
・other strakes	・Minimum of two webs and both transverse bulkheads	・Two measurements between each pair of vertical stiffeners
5. Horizontal girders	Plating on each girder in a minimum of three bays	Two measurements between each pair of longitudinal girder stiffeners
6. Panel stiffening	Where applicable	Single measurements

Table B5.23 has been renumbered to B5.23-1.

Table B5.23-2 has been added as follows.

Table B5.23-2 Requirements of Pressure Tests for Ships Carrying Liquefied Gases in Bulk

Special Survey	Tanks subject to pressure tests
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. All boundaries of ballast tanks and deep tanks within the cargo area 2. Representative tanks for fresh water, fuel oil and lubrication oil within the cargo area 3. All water tanks For fresh water tanks outside the cargo area, special consideration may be given to limit testing to representative tanks provided that, after an internal and external examination of the tanks, the Surveyor is satisfied with the condition of the tanks. 4. All fuel oil tanks For fuel oil tanks outside the cargo area, special consideration may be given to limit testing to representative tanks provided that, after an internal or external examination of the tanks as specified in **5.2.4-2**, the Surveyor is satisfied with the condition of the tanks. 5. All lubrication oil tanks For lubrication oil tanks outside the cargo area, special consideration may be given to limit testing to representative tanks provided that, after an external examination of tanks, the Surveyor is satisfied with the condition of the tanks.
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. As Special Survey No.1
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. All water tanks 2. All fuel oil tanks Special consideration may be given to limit testing of double bottom tanks to representative tanks including one forward and one aft tank and of deep tanks to representative tanks provided that, after an internal and external examination of the tanks as specified in **5.2.4-2**, the Surveyor is satisfied with the condition of the tanks. 3. All lubrication oil tanks Special consideration may be given to limit testing to representative tanks provided that, after an internal and external examination of the tanks as specified in **5.2.4-2**, the Surveyor is satisfied with the condition of the tanks.
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. All water tanks, all fuel oil tanks and all lubrication oil tanks

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 July 2008.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to the surveys for which the application is submitted to the Society before the effective date.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE

Part B Class Surveys

2008 AMENDMENT NO.1

Notice No.9 27th February 2008

Resolved by Technical Committee on 30th November 2007

Notice No.9 27th February 2008
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 B CLASS SURVEYS

Amendment 1-1

B1 GENERAL

B1.1 Surveys

B1.1.2 Class Maintenance Surveys

Sub-paragraph -1(4) has been amended as follows.

1 Modifications or conversions referred to in **1.1.2-2(3), Part B of the Rules** are as specified in **(1)** through **(5)** below:

(1) Change of the purpose of combined deep water tank/oil tank/cargo hold
(Omitted)

(2) Change of the purpose of tanks
(Omitted)

(3) Change of the loading conditions
(Omitted)

(4) Change in the loading manuals, the stability information and other similar documents
When conversions accompanying a change in principal data of the ship are intended, ~~the~~ a new loading manual, stability information and other similar documents ~~is~~ are to be prepared based on the changed data and approved by the Society. When differences of light weight and lightship longitudinal centre of gravity from the original values to values calculated for after conversion exceed either of the following limits, an inclining test is to be carried out.
(a) Light weight: 2% of the original value or 2 *tonnes*, whichever is greater
(b) Lightship longitudinal centre of gravity: 1% of subdivision length (L_S) as defined in **4.1.2(6), Part C** or **4.1.2(6), Part CS of the Rules**, as applicable. For ships other than those of 500 *gross tonnage* and above engaged on international voyages, 1% of length of ship (L) can be applied.

(5) Other modifications or conversions
Regarding to the other modifications or conversions, since the necessity of the approval by the Society may be considered case by case basis, the owner is to offer such modifications or conversions. In general, modifications or conversions on the main hull structures are required the approval by the Society. Reference is made to the provisions of **2.5.1, Part B of the Rules**.

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 1 April 2008.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships for which the date of contract for conversion is before the effective date.

Amendment 1-2

B2 CLASSIFICATION SURVEYS

B2.3 Sea Trials and Stability Experiments

Paragraph B2.3.2 has been amended as follows.

B2.3.2 Stability Experiments

1 (Omitted)

2 (Omitted)

3 (Omitted)

4 (Omitted)

5 Where the stability experiment is dispensed with due to the requirement in **2.3.2-3, Part B of the Rules**, a light weight measurement is to be carried out, and it is to be confirmed that the deviation of light weight between the following **(1)** and **(2)** does not exceed ~~2% of the expected value of **(2)**~~ a value specified in **Table B2.3.2-1**, and the deviation of lightship longitudinal centre of gravity between **(1)** and **(2)** does not exceed ~~1~~0.5% of~~ length of the ship between perpendiculars~~ subdivision length (L_S) as defined in **4.1.2(6), Part C** or **4.1.2(6), Part CS of the Rules**, as applicable. For ships other than those of 500 *gross tonnage* and above engaged on international voyages, 0.5% of length of ship (L) can be applied. For the purpose of this requirement, a sister ship is a ship built by the same yard from the same plan.

(1) Light weight and lightship longitudinal centre of gravity determined by a light weight check of the ship intended.

(2) Light weight and lightship longitudinal centre of gravity of a lead sister ship, or, those values which are determined by detailed calculation regarding differences, where the ship is modified from a lead sister ship.

6 Where the stability experiment was dispensed with in accordance with the provisions of **2.3.2-3, Part B of the Rules** and **-5** above, light weight and lightship centre of gravity are to be determined as follows.

(1) Light weight and lightship longitudinal centre of gravity are to be derived from **-5(1)** above.

(2) Lightship vertical centre of gravity is to be the higher of either the lead sister ship's value or the calculated value for the considered ship.

~~6~~7 The functional tests specified in **2.3.2-4, Part B of the Rules** are to be carried out in accordance with **Annex U1.2.2 "GUIDANCE FOR STABILITY COMPUTER"**. The case where a computer for stability calculation is on board the ship as a supplement to the stability information booklet, as specified in **2.3.2-4, Part B of the Rules**, means where a computer for stability calculation or a computer in which a software for stability calculation is installed, is on board the ship for use of the calculation at the navigation bridge, the cargo control room, etc.

Table B2.3.2-1 has been added as follows.

Table B2.3.2-1 Acceptable deviation of light weight regarding exemption from inclining test

Length for freeboard (L_f)	$L_f < 50\ m$	$50\ m \leq L_f \leq 160\ m$	$160\ m < L_f$
Acceptable deviation, as given by a ratio of deviation to the lightship displacement of the lead ship subjected to the inclining test	2%	Obtained by linear interpolation	1%

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 April 2008.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships neither complying with the following **(1)** nor **(2)**.

(1) Ships for which the date of contract for construction* is on or after the effective date.

(2) Ships the keels of which were laid or which were at *a similar stage of construction* on or after 1 January 2009.

(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.

* "contract for construction" is defined in IACS Procedural Requirement (PR) No.29 (Rev.4).

IACS PR No.29 (Rev.4)

1. The date of "contract for construction" of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.

2. The date of "contract for construction" of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder.
For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a "series of vessels" if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:
(1) such alterations do not affect matters related to classification, or
(2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.
The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.

3. If a contract for construction is later amended to include additional vessels or additional options, the date of "contract for construction" for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a "new contract" to which **1.** and **2.** above apply.

4. If a contract for construction is amended to change the ship type, the date of "contract for construction" of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Notes:
1. This Procedural Requirement applies to all IACS Members and Associates.
2. This Procedural Requirement is effective for ships "contracted for construction" on or after 1 January 2005.
3. Revision 2 of this Procedural Requirement is effective for ships "contracted for construction" on or after 1 April 2006.
4. Revision 3 of this Procedural Requirement was approved on 5 January 2007 with immediate effect.
5. Revision 4 of this Procedural Requirement was adopted on 21 June 2007 with immediate effect.

Amendment 1-3

B2 CLASSIFICATION SURVEYS

B2.1 Classification Survey during Construction

B2.1.2 Submission of Plans and Documents for Approval

Sub-paragraph -7 has been amended as follows.

1 Undermentioned plans required to be submitted for approval in **2.1.2, Part B of the Rules** are to be indicate following items;
(Omit)

6 The wording "in accordance with the requirements stipulated otherwise by the Society" referred to in **2.1.2-1, Part B of the Rules** means as specified below:
Where an applicant for classification of a ship intends to get an approval on plans and documents prepared for new building or alteration work prior to submission of an application for classification and surveys of the ship, an application for prior approval of plans and documents is to be submitted to the Society.

7 For the coatings of internal spaces subject to **25.2.2**, **Part C**, **22.4.2**, **Part CS**, **1.2.2 Section 5 Chapter 3**, **Part CSR-B** ~~and~~ or **2.1.1.2 Section 6**, **Part CSR-T**, the Coating Technical File specified in **2.1.2-11**, **Part B of the Rules** must contain at least the following items:

(1) A copy of the Statement of Compliance or Type Approval Certificate specified in **2.1.8(1)**, **Part B of the Rules**;

(2) A copy of the Technical Data Sheet specified in **2.1.8(1)**, **Part B of the Rules**, including:
  (a) Product name and identification mark and/or number;
  (b) Materials, components and composition of the coating system, colours;
  (c) Minimum and maximum dry film thickness;
  (d) Application methods, tools and/or machines;
  (e) Condition of surface to be coated (de-rusting grade, cleanness, profile, etc.); and
  (f) Environmental limitations (temperature and humidity);

(3) Shipyard work records of coating application, including:
  (a) Applied actual space and area (in *square metres*) of each compartment;
  (b) Applied coating system;
  (c) Time of coating, thickness, number of layers, etc.;
  (d) Ambient condition during coating; and
  (e) Method of surface preparation;

(4) Procedures for inspection and repair of coating system during ship construction;

(5) Coating log issued by the coating inspector, stating that the coating was applied in accordance with the specifications to the satisfaction of the coating supplier representative and specifying deviations from the specifications, see *IMO* Resolution *MSC.*215(82) **Annex 2** for an example of the daily log and non-conformity report ;

(6) Shipyard's verified inspection report, including:
  (a) Completion date of inspection;
  (b) Result of inspection;
  (c) Remarks (if given); and
  (d) Coating inspector's signature; and

(7) Procedures for in-service maintenance and repair of coating system.

Paragraph B2.1.3 has been deleted.

~~**B2.1.3 Submission of Other Plans and Documents**~~

~~**1** Corrosion prevention scheme~~

~~For sea water ballast tanks of oil tankers, ships carrying dangerous chemicals in bulk and ships coming under the definition of bulk carrier as specified in **31A.1.2(1), Part C of the Rules**, and double side skin spaces of ships coming under the above definition of bulk carriers of 150 *m* in length L_f upward, corrosion prevention scheme specified in **2.1.3-1(3), Part B of the Rules**, is to contain the following items;~~

~~(1) Owner's, coating manufacturer's and shipyard's explicit agreement to the scheme for coating selection, application and maintenance.~~

~~(2) List of seawater ballast tanks identifying the coating system for each tank, including coating color and whether coating system is a hard coating.~~

~~(3) Details of anodes, if used.~~

~~(4) Manufacturer's technical product data sheet for each product.~~

~~(5) Manufacturer's evidence of product quality and ability to meet owners requirements.~~

~~(6) Evidence of shipyard's and/or its subcontractor's experience in coating application.~~

~~(7) Surface preparation procedures and standards, including inspection points and methods.~~

~~(8) Application procedures and standards, including inspection points and methods.~~

~~(9) Format for inspection reports on surface preparation and coating application.~~

~~(10) Manufacturer's product safety data sheets and precautions for each product.~~

~~(11) Maintenance requirements for the coating system.~~

Paragraph B2.1.8 has been amended as follows.

B2.1.8 Verification of Coating Application

1 The "Technical Data Sheet" stipulated in **2.1.8(1)**, **Part B of the Rules** refers to the paint manufacturers' Product Data Sheet which contains detailed technical instruction and information relevant to the coating and its application.

~~**2** "*IMO Performance Standard for Protective Coatings*" stipulated in **2.1.8(1), Part B of the Rules** refers to *IMO* Resolution *MSC.*215(82) "*Performance standard for protective coating for dedicated seawater ballast tanks in all types of ships and double side skin spaces of bulk carriers*"~~

~~**3**~~**2** The "certificate deemed appropriate by the Society" stipulated in **2.1.8(1)**, **Part B of the Rules** refers to one of the following **(1)** to **(3)**:

(1) The Society's approval certificate specified in **Chapter 4**, **Part 4** of **Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use**

(2) Statement of Compliance issued by the Research Institute of Marine Engineering, Japan (*RIME*) or MARINTEK

(3) Other documents approved by the Society

~~**4**~~**3** The "qualification standards deemed appropriate by the Society" stipulated in **2.1.8(3)**, **Part B of the Rules** refers to the qualifications that the coating inspector is to have, at least one of which is from the following **(1)** to **(3)**:

(1) NACE Coating Inspector Level 2

(2) FROSIO Inspector Level III
(3) Equivalent qualifications approved by the Society

~~5~~**4** The "coating inspection requirements deemed appropriate by the Society" stipulated in **2.1.8(5)**, **Part B of the Rules** refers to the requirements specified in **6**, *IMO* Resolution *MSC.*215(82).

EFFECTIVE DATE AND APPLICATION (Amendment 1-3)

1. The effective date of the amendments is 1 July 2008.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships other than ships that fall under the following:
(1) for which the building contract is placed on or after 1 July 2008; or
(2) in the absence of a building contract, the keels of which are laid or which are at *a similar stage of construction* on or after 1 January 2009; or
(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.
(3) the delivery of which is on or after 1 July 2012