RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part B Class Surveys

2007 AMENDMENT NO.3

Rule No.48 27th September 2007

Resolved by Technical Committee on 2nd July 2007

Approved by Board of Directors on 24th July 2007

Rule No.48 27th September 2007
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:

Amendment 3-1

Part B CLASS SURVEYS

Chapter 1 GENERAL

1.1 Surveys

1.1.2 Class Maintenance Surveys

Sub-paragraph -2(2)(c) has been deleted.

~~(c) Preventive Machinery Maintenance Scheme (PMMS): The Survey consists of open-up examinations of machinery and equipment specified in **Chapter 9** of this Part which are to be carried out on the basis of the results of regular condition monitoring and diagnoses according to the machinery maintenance scheme approved by the Society.~~

1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph -2 has been amended as follows.

2 Planned Machinery Surveys are to be carried out as specified below in **(1)** ~~through **(3)**~~ and **(2)**.

(1) In the Continuous Machinery Survey, each survey item or part is to be examined at the interval not exceeding 5 *years*.

(2) In the Planned Machinery Maintenance Scheme, each survey item or part is to be examined according to the survey schedule table specified in **9.1.3** and at the general examination (including review of maintenance records) which is to be carried out every year.

~~(3) In the Preventive Machinery Maintenance Scheme, each survey item or part is to be examined according to the survey schedule table specified in **9.1.4**, and at the general examination (including review of maintenance and condition monitoring records) as well as performance tests which are to be carried out every year.~~

Chapter 9 PLANNED MACHINERY SURVEYS

9.1 Planned Machinery Surveys

Paragraph 9.1.1 has been amended as follows.

9.1.1 Application

In a Planned Machinery Survey, surveys in accordance with any of the requirements prescribed in **9.1.2** ~~to **9.1.4** ~~and **9.1.3** are to be carried out.

Paragraph 9.1.3 has been amended as follows.

9.1.3 Planned Machinery Maintenance Scheme

A shipowner (or ship management company) that has an established maintenance system may apply to adopt the planned maintenance method ~~a Planned Machinery Maintenance Scheme (hereinafter referred to as "PMS")~~ in which ~~permits~~ the shipowner is permitted to carry out planned overhaul inspections and maintenance as specified in **(1)** in place of the open-up surveys specified in **Table B9.1**. In addition to **(1)**, the shipowner (or ship management company) may apply to adopt the condition monitoring maintenance method as specified in **(2)** which is based on the results of condition monitoring and diagnoses for the machinery and equipment. ~~However, the machinery and equipment deemed necessary to be subjected to open-up examinations in the presence of the Surveyor by the Society, are to undergo the said examinations at the times according to the survey schedule table based upon the machinery maintenance scheme.~~

(1) The ~~PMS~~ planned maintenance method is to be implemented in accordance with the machinery maintenance scheme approved by the Society. The Society ~~requests~~ will perform a general examination yearly on every item including review of the maintenance records in order to ascertain that the machinery and equipment covered are placed in good order. ~~In case w~~Where it is regarded that satisfactory maintenance has not been carried out for any of the machinery and equipment, an open-up examination of the item in the presence of the Surveyor ~~are~~ may be required. For ~~M~~machinery and equipment deemed necessary by the Society~~,~~ ~~are to be subjected to~~ open-up examinations in the presence of the Surveyor ~~at the times~~ are to be performed according to the survey schedule table based on the machinery maintenance scheme.

(2) The condition monitoring maintenance method is to be implemented in accordance with the machinery maintenance scheme approved by the Society. When any abnormalities are found through the condition monitoring data or diagnoses, the shipowner (or ship management company) is to request an examination in the presence of the Surveyor as soon as possible in accordance with the survey schedule table based on the machinery maintenance scheme. The Society will perform a general examination yearly on every item including review of the condition monitoring data and the maintenance records in order to ascertain that the machinery and equipment covered are placed in good order. Where it is regarded that satisfactory maintenance has not been carried out for any of the machinery and equipment, an open-up examination of the item in the presence of the Surveyor may be required. The planned overhaul inspections and maintenance method is to be required where the condition monitoring maintenance method is not applied.

Paragraph 9.1.4 has been deleted.

~~**9.1.4 Preventive Machinery Maintenance Scheme**~~

(Omitted)

Paragraph 9.1.5 has been renumbered to 9.1.4, and paragraph 9.1.4 has been amended as follows.

9.1.~~5~~4 Periodical Surveys

In place of the Planned Machinery Surveys prescribed in **9.1.2** ~~to~~ and ~~**9.1.4**~~**9.1.3**, the surveys specified in **Table B9.1** may be carried out at Special Surveys prescribed in **1.1.3**~~, whereby it is~~ to ~~be~~ ascertain~~ed~~ that ~~they are~~ all the machinery is placed in good order. However, at ~~a~~ Special Surveys of ~~a~~ ships equipped with two or more propeller shafting systems driven by identical main engines, surveys of the main engine components that were examined in accordance with the requirements for Special Surveys after the Classification Survey during Construction or the previous Special Survey may be omitted ~~in case~~ where deemed appropriate by the Surveyor, considering the time the engines were examined ~~of~~, the service history of the engines, the ~~general~~ present condition ~~at present~~ and whether or not they were ~~it was~~ subject~~ed~~ to a Classification Survey during Construction.

EFFECTIVE DATE AND APPLICATION (Amendment 3-1)

1. The effective date of the amendments is 1 October 2007.

Amendment 3-2

Chapter 1 GENERAL

1.1 Surveys

1.1.7 Bulk Carriers

Sub-paragraph -4 has been amended as follows.

1 For ships which are applicable to **Chapter 31B, Part C**, a compliance survey for the requirements of **31B.2, 31B.3** and **31B.4, Part C** is to be carried out by the time specified in **Table C31B.1.3, Part C** and, a compliance survey for the requirements of **31B.5** and **31B.6, Part C** is to be carried out by the time specified in **Table C31B.5.1, Part C** in addition to the surveys required in this chapter. Moreover, a compliance survey for the requirements of **31B.7, Part C** is to be carried out. The thickness measurement examination included in the compliance survey for **31B.3** and **31B.5, Part C**, is to be carried out as deemed appropriate by the Society. In this case, the gauging procedure and submitted report are to comply with the requirements of **5.2.6-1** in addition to the procedures specified separately.

2 For ships which are applicable to **Chapter 31B, Part C**, continuing compliance with **31B.3** and **31B.5, Part C** is to be verified at Special Surveys and Intermediate Surveys (for ships over 10 *years* of age) after the compliance survey specified in **-1**. For this purpose, the thickness measurements as deemed appropriate by the Society are to be carried out for the vertical corrugated watertight bulkhead abaft the foremost hold, in addition to those according to **Table B5.15**.

3 For ships which are required to carry out the annual thickness measurement for the vertical corrugated watertight bulkhead abaft the foremost hold as a result of the survey specified in **-1** or **-2**, the measurement is to be carried out at Annual Surveys in addition to those according to **Table B3.6**.

4 For ships which are applicable to **31B.2.1-2, Part C** as a result of the survey specified in **-1**, the following surveys are to be carried out at periodical surveys in addition to the surveys required in this chapter.

(1) At annual surveys, ~~the survey items required in **4.2.4**, **4.2.5** and **4.2.6** are to be carried out instead of **3.2.4**, **3.2.5** and **3.2.6**~~ in addition to the requirements stipulated in **Chapter 3**, the following items are to be carried out for the foremost hold.

(a) For ships over 5 *years* and up to 15 *years* of age

i) An overall survey of the cargo hold

ii) A close-up survey of transverse bulkheads and minimum 25% of hold frames (including their upper and lower brackets and adjacent shell plating). Where considered necessary by the Surveyor as a result of the survey, the survey is to be extended to include a close-up survey of all of the hold frames.

iii) Suspect areas identified at previous surveys

(b) For ships over 15 *years* of age

i) An overall survey of the cargo hold

ii) A close-up survey of transverse bulkheads and all hold frames (including their upper and lower brackets and adjacent shell plating)

iii) Suspect areas identified at previous surveys

(c) The thickness measurement is to be carried out to the minimum extent specified in **(a)ii)** and **iii)** or **(b)ii)** and **iii)** above as applicable. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with **Tables B5.16** through **B5.20** for the structural members in which such corrosion is found.

(2) Function tests of the bilge well high level alarms and hold water ingress alarms as stated in (2) and (4) of **C31B.2.1-2, Part C Guidance for the Survey and Construction of Steel Ships** are to be carried out in addition to those required at periodical surveys as stated in **3.2.3**, **4.2.3** and **5.2.3**.

Chapter 3 ANNUAL SURVEYS

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

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	
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 pump room and on weather decks is to be examined.
Additional Requirement for Bulk Carriers over ~~15~~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 B3.3 has been amended as follows.

Table B3.3 Performance Tests

Items	Tests
1 Weathertight hatch covers	・ Hose test listed in **Table B2.1** (when deemed necessary by the Surveyor) ・ Random checking of the satisfactory operation of mechanically operated hatch covers ・ For mechanically operated hatch covers on bulk carriers, hatch cover sets within the forward $0.25L_f$ and at least one additional set are to be checked for satisfactory operation so that all sets on the ship are checked at least once every 5 *years* between special surveys
2 Closing appliances of watertight door on watertight bulkheads and openings on superstructure end bulkheads	・ Checking whether the appliances work in good order is to be made as deemed necessary by the Surveyor.
3 Appliances related to fire protection and escape	・ Checking whether the appliances work in good order is to be carried out.
4 Fire detection system and fire alarm system including manually operated call points	・ Checking whether the systems work in good order, including failure alarm of the system, is to be made.
5 Fire pumps including emergency fire pump, pipings, hydrants, hoses, nozzles etc.	・ Performance test of the fire fighting system composed of fire pump, hydrants, etc. is to be carried out. For ships having operating system for periodically unattended machinery space, operation test of remote control system or automatic operation system of one pump is to be carried out.
6 Fixed deck foam system	・ Checking whether the system works in good order is to be carried out by delivering water.
7 Ventilation system	・ Checking whether fans work in good order is to be carried out.
8 Stability Computer	・ For computers for stability calculation as a supplement to the stability information booklet, which is on board ships contracted for construction on or after 1 July 2005, a performance test is to be carried out.
9 Water level detection and alarm systems	・ Checking, at random, whether the systems work in order is to be made.
10 Dewatering arrangements	・ Checking whether the systems work in order is to be made.

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	
1 Engine room and boiler room	・An internal examination is to be carried out.
2 Pump rooms and pipe spaces adjacent to cargo tanks	・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.
3 Ballast tanks	・For oil tankers and ships carrying dangerous chemicals 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 ~~to~~ (i.e. with a common plane boundary) to a ~~cargo~~ 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	
1 Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in pump room 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 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**. ~~・ When extensive corrosion is found in the examination of ballast tanks adjacent to (i.e. with a common plane boundary) a cargo tank with heating coils specified in **Table B3.4** which is required for oil tankers other than double hull oil tankers, as defined in **B1.3.1 (12)** 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 requirements 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	・ 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**.
3 Structural members in cargo holds	
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 B4.1 has been amended as follows.

Table B4.1 Performance Test

Items	Tests
1 Equipment or installations of items in **Table B3.3** (except item 2)	・ Tests for each items specified in **Table B3.3** are to be carried out.
2 Doors on watertight bulkheads and closing appliances on superstructure end bulkheads	・ Checking whether doors and closing appliances work in order is to be made.
3 Drainage, mooring and anchoring arrangements and their accessories	・ Checking whether arrangements work in order is to be made. The checking may be dispensed with at the discretion of the Surveyor.
4 Fixed dry-chemical powder fire fighting system	・ Checking whether piping is maintained in good condition is made by delivering air. Checking whether a monitor and a hose work in order is to be made. Checking whether the remote control system and the related automatic valve work in order is to be made. ・ Checking of quantity of starting or pressuring gases is to be made.
5 Water spray system	・ Checking whether the system works in order is to be made by delivering water. Checking of quantity of delivered water may be dispensed with.
6 Carbon dioxide extinguishing medium, halon extinguishing medium and dry chemical powder extinguishing medium	・ Checking of quantity of those media is to be made.
7 Fixed carbon dioxide fire fighting system and fixed halon fire fighting system	・ Checking whether pipings are maintained in good condition is made by delivering air. ・ Checking whether an alarm of systems works in order is to be made.
8 Fixed foam fire fighting system and fixed high expansion foam fire fighting system	・ Checking whether pipings are maintained in good condition is to be carried out by delivering water.
9 Fixed pressure water spraying fire fighting system	・ Checking whether the system works in order is to be made by delivering water. ・ Checking whether the pump of the system works in order is to be made.
10 Automatic sprinkler system	・ Checking whether the delivery alarm and the pump works in order is to be made while fire detecting system is working.

11 Closing appliances of openings related to fire fighting in way of cargo holds	• Checking whether closing appliances work in order is to be made.
Additional Requirements for Bulk Carriers	
12 Mechanically operated hatch covers	• Checking whether the ~~selected~~ hatch cover sets within the forward 0.25L_f and at least one additional set are working in good order. The method is to be in a way that ensures all sets on the ship are checked at least once every 5 *years* between special surveys. • Checking whether all hatch covers work in good order is to be carried out for ships over ~~15~~10 *years* of age.
13 Weathertight hatch covers	• Hose test listed in **Table B2.1** or equivalent, for all hatch covers for ships over ~~15~~10 *years* of age.
14 Water level detection and alarm systems	• Checking whether the systems work in order is to be made for ships over 10 *years* of age.

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	
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. 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. ~~・ 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, an internal examination is to be carried out at annual intervals.~~ ・ As a result of internal examinations, ~~For~~ ballast tanks ~~of any of the following~~ with conditions shown in (a) to ~~(c)~~(b) require an internal examination ~~is~~ to be carried out at annual intervals. (a) ~~A~~The protective coating is found to be in POOR condition and it is not repaired to the satisfaction of the surveyor. (b) ~~A~~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. ~~(c) The tank has a common plane boundary with a cargo tank with any means of heating (for oil tankers other than Double hull oil tankers, as defined in **B1.3.1 (12)**).~~

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.

Chapter 5 SPECIAL SURVEYS

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

5.2.2 General Examination

Sub-paragraph -1 has been amended as follows.

1 At Special Surveys, all bilge and ballast piping systems in addition to ~~examinations of~~ hull, equipment, fire-extinction and fittings specified in **4.2.2** are to be ~~carried out~~ 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 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 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, ballast tanks, 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.

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 **(5)** below.

(1) Operation test for all mechanically operated hatch covers ~~specified in item 12 in **Table B4.1**~~

(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 tanks and spaces bounding cargo tanks such as ballast tanks, pump rooms, pipe tunnels, cofferdams and void spaces and on weather deck

(5) 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 ballast tanks, pipe tunnels, cofferdams, void spaces and other similar spaces bounding cargo holds, and those on weather decks

(~~5~~6) 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.

5.2.4 Internal Examinations of Spaces and Tanks

Sub-paragraph -3 has been amended as follows.

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. 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 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.

5 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.

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	・ 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 tanks and spaces adjacent to cargo tanks(ballast tanks, pump rooms, pipe tunnels, cofferdams and void spaces)	・ Tanks and spaces identified as suspect areas at previous surveys are to be examined. ・ As a result of internal examinations, ~~For~~ ballast tanks ~~of any of the following~~ with conditions shown in (a) to ~~(c)~~(b) require an internal examination ~~is~~ to be carried out at annual intervals. (a) ~~A~~The protective coating is found to be in POOR condition and it is not repaired to the satisfaction of the surveyor. (b) ~~A~~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. ~~(c) The tank has a common plane boundary with a cargo tank with any means of heating (for oil tankers other than Double hull oil tankers, as defined in **B1.3.1 (12)**).~~ ・ 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.

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 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 B5.10 has been amended as follows.

Table B5.10 Requirements of Thickness Measurements for Oil Tankers and Ships Carrying Dangerous Chemicals 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. Each deck plating in one transverse section in way of a ballast tank, if any, or a cargo tank used primarily for water ballast within the cargo area 3. Structural members subject to close-up survey for general assessment and recording of corrosion pattern 4. Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in pump room and on weather decks, when deemed necessary by the Surveyor as a consequence of general examinations specified in **5.2.2**
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 3. Structural members subject to close-up survey for general assessment and recording of corrosion pattern 4. Selected wind and water strakes without cargo area. 5. Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in pump room and on weather decks, when deemed necessary by the Surveyor as a consequence of general examinations specified in **5.2.2**
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 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 5. All wind and water strakes within the cargo area 6. Internals in fore and aft. peak tank 7. Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in pump room and on weather decks, when deemed necessary by the Surveyor as a consequence of general examinations specified in **5.2.2** 8. For ships carrying dangerous chemicals in bulk, selected steel cargo pipes outside cargo tanks and ballast pipes passing through cargo tanks

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 (3) Each bottom plate 3. Structural members subject to close-up survey for general assessment and recording of corrosion pattern 4. All wind and water strakes 5. Internals in fore peak tank and after peak tank 6. Selected exposed main deck plating outside the cargo area 7. Representative exposed superstructure deck plating (poop, bridge and forecastle deck) 8. All keel plates full length. Also, additional bottom plates in way of cofferdams, machinery space, and aft end of tanks outside of the cargo area 9. Plating of sea chests. Shell plating in way of overboard discharges as deemed necessary by the Surveyor 10. Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other pipings in pump room and on weather decks, when deemed necessary by the Surveyor as a consequence of general examinations specified in **5.2.2** 11. For ships carrying dangerous chemicals in bulk, selected steel cargo pipes outside cargo tanks and ballast pipes passing through cargo tanks

Table B5.21 has been amended as follows.

Table B5.21 Requirements of Thickness Measurements for General Dry Cargo Ships of not less than 500 *gross tonnage* (to be continued)

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. At least following structural members for general assessment and recording of corrosion pattern: (1) In cargo holds where high-corrosive cargoes to steel such as logs, salt, coal, sulfide ore, etc. have been loaded, lower parts of web (most thin parts of web in case of built-up type frame) and their lower end brackets of three hold frames at least at a forward/middle/aft part of both sides in each cargo hold (2) At least one plate of lowest strake and strakes in way of tween decks of all watertight transverse bulkheads in cargo spaces specified in (1) above together with internals in way (3) Both ends and middle part including face plate of one transverse ring or corresponding main structural members in one each tank selected arbitrary from the top side tanks, bilge hopper tanks and deep tanks used as the ballast tanks
Special Survey for ships over 5 *years* and up to 10 *years* of age	1. Suspect area 2. Following portions of structural members within 0.5*L* amidships; (1) Each plate in one section of the strength deck plating for the full beam of the ship

(Special Survey No.2)	(2) Each strength deck plate in way of water ballast tanks, if any (3) Each strength deck plate on or underneath which log cargoes or other cargoes being prone to accelerate corrosion have been carried 3. At least following structural members for general assessment and recording of corrosion pattern: (1) In cargo holds specified in 2.(1) of the column of S.S.No.1, lower and upper parts of web (most thin parts of web in case of built-up type frame) and their end brackets of sufficient number (at least 1/3 of total number) of frames at a fore/middle/aft part of both sides in each cargo hold (2) All plates of lowest strake and strakes in way of tween decks of all watertight transverse bulkheads in cargo spaces specified in (1) above together with internals in way (3) In cargo holds other than (1) above, structural members specified in 2.(1) and (2) of the column of S.S.No.1. (4) Both ends and middle part (including face plate) of approximately half the number of transverse rings or corresponding main structural members and at least one plate of upper and lower ends of each bulkhead in each one selected tank from the top side tanks, bilge hopper tanks and deep tanks used as the ballast tanks (5) Both ends and middle part of one transverse ring or corresponding main structural members (including face plate) in all remaining top side tanks, bilge hopper tanks and deep tanks used as the ballast tanks except those specified in (4) above (6) Other structural members subject to close-up survey 4. All cargo hold hatch coamings (plating and stiffeners) 5. ~~Selected~~ All cargo hold hatch covers (plating and stiffeners)
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. Suspect area 2. Structural members within the cargo length area: (1) Each deck plating outside line of cargo hatch openings (2) Each deck plating inside line of openings between cargo hold hatch within 0.5*L* amidships (3) Each plate and member in two transverse sections, one in the amidships area, within 0.5*L* amidships. For ships less than 100 *m* in length, the number of transverse sections may, however, be reduced to one. (4) All wind and water strakes 3. Selected wind and water strakes outside the cargo length area 4. At least following structural members for general assessment and recording of corrosion pattern: (1) Lower and upper parts of web (most thin parts of web in case of built-up type frame) and their end brackets of sufficient number (at least 1/3 of total number) of frames at a fore/middle/aft part of both sides in each cargo hold (2) Other structural members subject to close-up survey 5. Internals in fore and aft. peak tank 6. All cargo hold hatch coamings (plating and stiffeners) 7. All cargo hold hatch covers (plating & stiffeners)

Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. Suspect area 2. Following portions of structural members (1) All exposed main deck plate full length (2) Each plate and member in three transverse sections, one in the amidships area, within 0.5*L* amidships. For ships less than 100 *m* in length, the number of transverse sections may, however, be reduced to two (3) Each bottom plate within cargo length area, including lower turn of bilge (4) Duct keel or pipe tunnel plating and internals within cargo length area 3. All wind and water strakes 4. At least following structural members for general assessment and recording of corrosion pattern: (1) Structural members subject to close-up survey 5. Representative exposed superstructure deck plating (poop, bilge and forecastle deck) 6. All keel plate full length. Also, additional bottom plates in way of cofferdams, machinery spaces and aft end of tanks 7. Plating of sea chests. Shell plating in way of overboard discharges as deemed necessary by the Surveyor 8. Structural members specified in 5. to 7. in the column of S.S. No.3

Table B5.23 has been amended as follows.

Table B5.23 Requirements of Pressure Tests for Oil Tankers, etc.

Special Survey	Tanks subject to pressure tests
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. Cargo tank boundaries facing ballast tanks, void spaces, pipe tunnels, fuel oil tanks, pump rooms or cofferdams 2. For oil tankers, representative tanks for fresh water, fuel oil and lubrication oil within the cargo area 3. All water tanks Special consideration may be, however, given to limit testing of fresh water tanks other than tanks specified in 2. above 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 Special consideration may be, however, given to limit testing of fuel oil tanks other than tanks specified in 2. above to representative tanks provided that, after an internal or external examination of the tanks specified in **5.2.4-2**, the Surveyor is satisfied with the condition of the tanks. 5. All lubrication oil tanks Special consideration may be, however, given to limit testing of lubrication oil tanks other than tanks specified in 2. above 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. All cargo tanks bulkheads 2. For oil tankers, representative tanks for fresh water, fuel oil and lubrication oil within the cargo area 3. All water tanks Special consideration may be, however, given to limit testing of fresh water tanks other than tanks specified in 2. above 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 Special consideration may be, however, given to limit testing of fuel oil tanks other than tanks specified in 2. above to representative tanks provided that, after an internal or external examination of the tanks specified in **5.2.4-2**, the Surveyor is satisfied with the condition of the tanks. 5. All lubrication oil tanks Special consideration may be, however, given to limit testing of lubrication oil tanks other than tanks specified in 2. above 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 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. All cargo tanks bulkheads 2. All water tanks 3. All fuel oil tanks Special consideration may be, however, 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 specified in **5.2.4-2**, the Surveyor is satisfied with the condition of the tanks. 4. All lubrication oil tanks Special consideration may be, however, given to limit testing of lubrication oil tanks to representative tanks provided that, after an internal and external examination of the tanks specified in **5.2.4-2**, the Surveyor is satisfied with the condition of the tanks. 5. For ships carrying dangerous chemicals in bulk, selected steel cargo pipes outside cargo tanks and ballast pipes passing through cargo tanks
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. All cargo tank bulkheads 2. All water tanks, all fuel oil tanks and all lubrication oil tanks 3. For ships carrying dangerous chemicals in bulk, selected steel cargo pipes outside cargo tanks and ballast pipes passing through cargo tanks

EFFECTIVE DATE AND APPLICATION (Amendment 3-2)

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

Amendment 3-3

Chapter 2 CLASSIFICATION SURVEYS

2.1 Classification Survey during Construction

2.1.2 Submission of Plans and Documents for Approval

Sub-paragraph -1 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.

(1) Hull

(a) General arrangement

(b) Midship section (Athwartship sections at the hold and machinery space, and also in way of the wing tank if fitted; the characters of intended classification, designed maximum load draught and, where applying to the requirements in **1.1.12-1** or **-2 of Part C**, design temperature are to be indicated in this plan.)

(c) Stem, sternframe, propeller post and rudder (indicating materials and the ship's speed)

(d) Construction profile (showing arrangement of watertight bulkheads, the load draught, sizes of brackets and transverse sections of the ship at 0.1 *L* and 0.2 *L* from both ends of the ship)

(e) Deck plans (indicating arrangement and construction of hatchways, hatch beams, etc.)

(f) Single bottoms and double bottoms

(g) Watertight and oiltight bulkheads (indicating the highest position of tank and positions of tops of overflow pipes)

(h) Superstructure end bulkhead (with details of closing appliances of openings on the bulkheads)

(i) Arrangements to resist panting in both peaks and their vicinity

(j) Pillars and deck girders

(k) Shell expansion (Dimensions and arrangements of freeing ports and draught at the ballast condition for ships which intend to apply to the requirements in **1.1.12-1 of Part C** is to be indicated in this plan.)

(l) Shaft tunnels

(m) Seatings of boilers, engines, thrust and plummer blocks, dynamos and other important auxiliary engines (indicating horse powers, heights and weights of main engines, and arrangements of holding down bolts)

(n) Machinery casings

(o) Long deckhouses, if fitted

(p) Masts, mast houses and winch platforms

(q) Plans showing locations, sizes and details of equipment forming part of the watertight and weather-tight integrity of the ship, including piping

(~~q~~r) Pumping arrangements (indicating capacity of each tank, water or oil)

(~~r~~s) Plans showing the height of timber deck cargo and arrangements of lashing and fixing, where the ships are marked with the timber load lines in accordance with the requirements in **Part V** or where ships are provided with arrangements of lashing and fixing for timber loading on deck.

(~~s~~t) Construction for fire protection and plans showing ventilation systems (with materials used in the construction of superstructures, bulkheads, decks, deckhouses, trunks, stairways, deck coverings, etc. and arrangements of closing appliances of openings and means of escape)

(~~t~~u) Plans showing escape routes including their details

(~~u~~v) Plans showing fire extinguishing arrangement (the arrangement, numbers and types of fire pumps, hydrants, hoses, etc.), and if any, plans showing the arrangement of inert gas systems (general arrangements, piping diagrams with materials, dimensions, design pressure of pipes, valves, etc., details of each component and diagrams of control devices including monitoring, alarm and safety devices of the systems.)

(~~v~~w)Plans showing arrangement for means of access or ship structure access manuals as applicable, as defined in **Chapter 35, Part C** and **Chapter 26, Part CS**

(~~w~~x)Navigation bridge visibility:

Plans and data specified in **1.1.4, Part W** where the ship's length overall (L_{oa}) is 55 *m* or over.

(~~x~~y) Venting systems for tankers

i) General arrangement of bilge systems and ventilation systems of the cargo oil pump room.

ii) General arrangement of venting systems for cargo vapours, etc.

(~~y~~z) Plans showing arrangement of the ship's identification number specified in **1.1.24, Part C**

(~~z~~aa)Towing and mooring fitting arrangement plan specified in **27.2, Part C** or **23.2, Part CS**

(2) Machinery (omitted)

(3) Stowage installations and cargo tank construction for liquefied gases carried in bulk (omitted)

(4) Stowage installations and cargo tank construction for dangerous chemicals carried in bulk (omitted)

(5) Plans and documents for in-water surveys specified in **6.1.2-2**

(~~5~~6) Other plans and documents than specified in (1) through (4) which are deemed necessary by the Society

2.1.4 Presence of Surveyor

Sub-paragraph -5 has been added.

1 The presence of the Surveyor is required at the following stages of the work in relation to hull and equipment:

(1) When the material tests prescribed in **Part K** and **Part L** are carried out.

(2) When the materials or parts manufactured away from the site are being applied to the ship concerned.

(3) When the tests of welding prescribed in **Part M** are carried out.

(4) When designated by the Society during shop work or sub-assembly.

(5) When each block is assembled.

(6) When hydrostatic tests, watertight tests and non-destructive tests are carried out.
(7) When hull is completed.
(8) When performance tests are carried out on closing appliances of openings, remote control devices, steering gears, anchoring and mooring arrangements, emergency towing arrangements, piping, etc.
(9) When installing of rudder, profiling of keel line, measurement of principal dimensions, measurement of deflection of hull, etc. are carried out.
(10) When a loading computer is installed on board in accordance with the requirements of **34.1.1, Part C**.
(11) When the ships are marked with the load lines in accordance with the requirements in **Part V**.
(12) When sea trials are carried out.
(13) When stability experiments are carried out.
(14) For ships to be provided with the emergency towing arrangements in accordance with the requirements of **27.3, Part C**, when emergency towing arrangements are installed on board.
(15) When installing of fire extinguishing arrangement, and when the performance test are carried out.
(16) When the ship's identification number is marked.
(17) When deemed necessary by the Society.

2 The presence of the Surveyor is required at the following stages of the work in relation to machinery:
(1) When the tests of materials of main parts of machinery prescribed in **Part K** are carried out.
(2) Main parts of machinery
(a) When the tests stipulated in either of **Part D** or **Part H** according to the respective kind of machinery are carried out.
(b) When the materials are applied to the parts and the parts are installed on board.
(c) When machining of the main parts is finished and, if necessary, at a proper time during machining.
(d) In case of welded construction, before welding is commenced and when it is completed.
(e) When shop trials are carried out.
(3) When important machinery is installed on board.
(4) When performance tests are carried out on remote control devices of closing appliances, remote control devices for machinery and gears, automatic control devices, steering gear, mooring arrangements, pipings, etc.
(5) When sea trials are carried out.
(6) When deemed necessary by the Society.

3 The presence of the Surveyor is required when the tests stipulated in **Part N** and **Part S** are carried out.

4 The requirements specified in **-1**, **-2** and **-3** may be modified having regard to the actual status of facilities, technical abilities and quality control at the work, except the case of sea trials.

5 For the tests specified in **-1**, **-2** and **-3**, the applicant is to prepare test plans for review by the Society prior to testing. Test records and/or measurement records are to be submitted to the Society, as required.

Paragraph 2.1.6 has been amended as follows.

2.1.6 Documents to be maintained on board

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**)
- (b) Damage control plans (**33.3.1, Part C**)
- (c) Loading manuals (**Chapter 34, Part C** or **Chapter 25, Part CS**)
- (d) Ship structure access manuals (**35.2.6, Part C** or **26.2.6, Part CS**)
- (e) Stability information booklets (**1.2.1, Part U**, **2.2.2, Part N** and **2.2.2, Part S**)
- (f) Operation manuals for ships carrying liquefied gases in bulk (**18.1, Part N**)
- (g) Operation manuals for ships carrying dangerous chemicals in bulk (**16.1.1, Part S**)
- (h) Cargo handling plans (**17.20.13-2** and **17.22.12-10, Part N** and **15.3.2-15** and **15.8.32, Part S**)
- (i) Lists of loading/filling limits (**15.2.2** and **17.20.14, Part N** and **15.3.2-12**, **15.8.33-3** and **15.14.7-3, Part S**)
- (j) Programs for the non-destructive test for independent tank of Type *B* (**Table B5.27**)
- (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 (**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**)

(2) Other manuals, etc.
- (a) Towing and mooring fitting arrangement plans (**27.2.6, Part C** or **23.2.6, Part CS**)
- (b) Operation manuals for the emergency towing arrangement (**27.3, Part C**)
- (c) Booklets for the damage control (**33.3.2, Part C**)
- (d) Operation manuals for the loading computer (**34.1.3-3, Part C** or **Chapter 25, Part CS**)
- (e) Plans for means of access (**35.1.5, Part C** or **26.1.5, Part CS**)
- (f) Operation manuals for the stability computer (**1.2.2, Part U**)
- (g) Operating and maintenance instructions for ship machinery and equipment (**1.3.9, Part D**)
- (h) Manuals for the water level detection and alarm systems (**13.8.5-4** or **13.8.6-3, Part D**)
- (i) Maintenance records of batteries (**1.1.8, Part H**)
- (j) Instruction manuals for the cargo tank venting systems (**4.5.3, Part R**)
- (k) Fire Control Plans, Fire Safety Operational Booklets, Training manuals and Maintenance plans (**Chapters 14**, **15** and **16, Part R**)
- (l) Operation manuals for the helicopter facilities (**18.8, Part R**)
- (m) Instruction manuals for the inert gas systems (**35.2.11, Part R**)
- (n) A copy of the *IGC* Code or national regulations incorporating the provisions of the *IGC* Code (**18.2.2-3, Part N**)
- (o) A copy of the *IBC* Code or national regulations incorporating the provisions of the *IBC* Code (**16.2.3-1, Part S**)
- (p) Operating Booklets (**1.1.7, Part P**)

(3) Finished plans specified in **2.1.7**

2 For ships engaged on international voyages, the Surveyor confirms that the Ship Construction File contains the necessary documents from the following drawings, plans, manuals and documents, and that the Construction File is on board the ship. Duplicate documents as in **-1** are not required.

(1) Finished plans of hull structural drawings specified in **2.1.7**

(2) The following manuals and documents

(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**)

(b) Damage control plans (**33.3.1, Part C**)

(c) Loading manuals (**Chapter 34, Part C** or **Chapter 25, Part CS**)

(d) Stability information booklets (**1.2.1, Part U**, **2.2.2, Part N** and **2.2.2, Part S**)

(3) Ship structure access manuals (**35.2.6, Part C** or **26.2.6, Part CS**)

(4) Copies of certificates of forgings and castings welded into the hull structures

(5) Plans showing locations, sizes and details of equipment forming part of the watertight and weather-tight integrity of the ship, including piping (**2.1.2-1(1)(q)**)

(6) Corrosion prevention scheme (**2.1.3-1(3)**)

(7) Plans and documents for in-water surveys (**6.1.2-2**)

(8) Docking plan including locations and other necessary information of all penetrations specified in item 3 in **Table B6.1**

(9) Coating Technical File (**1.2.2 Section 5 Chapter 3, Part CSR-B** and **2.1.1.2 Section 6, Part CSR-T**)

(10) Test plans, test records, measurement records, etc.

~~2~~3 Where deemed necessary by the Society considering the purpose, characteristics, etc. of the ship, the submission of additional documents may be required.

~~3~~4 For ships of not less than 500 *gross tonnage* engaged on international voyages, it is recommended that all documents listed in **-1** above are marked with the *IMO* ship identification number.

Chapter 6 DOCKING SURVEYS

6.1 Docking Surveys

Paragraph 6.1.2 has been amended as follows.

6.1.2 In-water Surveys

1 In-water Surveys may be accepted in lieu of Surveys in dry dock or on slipway subject to the prior approval by the Society. In any case, Surveys in dry dock or on slipway to be carried out at the time specified in the following **(1)** or **(2)** are not to be replaced with In-water Surveys.

(1) Docking Surveys carried out at the time specified in **1.1.3-1(4)(a)**

(2) Docking Surveys carried out for bulk carriers, oil tankers and ships carrying dangerous chemicals in bulk, which over 15 *years* of age

2 The following plans and documents are to be included as part of a submission to the Society for approval for conducting In-water Surveys, which is to be obtained prior to commencement.

(1) Plans of shell plating below the waterline showing details of the location and sizes of shell openings, location of bottom plugs, location of bilge keels, location of water- and oil-tight bulkheads, location of welded seams and butts and location of anodes

(2) Detailed information or drawings of constructions and arrangements indicated in **-3** below, together with their colour photographs, and detailed instructions for inspection of such constructions and arrangements

(3) Documents showing the procedure which enables the Surveyor to confirm the clearance of the rudder bearing or the condition of the stern tube bearing based on a review of the operating history, on board testing or analysis of stern oil sample

Where the bearing is found to be satisfactory, special consideration may be given to the requirements in **-3(1)** or **-3(4)** below.

(4) Other data which may serve the inspections

3 Ships intended to be subjected to the In-water Survey are to comply with the following. Where the documents specified in **-2(3)** above are submitted, special consideration may be given to **(1)** or **(4)** below.

(1) A means of measuring the clearance of the rudder in way of each pintle is provided

(2) Rope-guard ring plates are of such construction as to facilitate the inspection of the shafting between propeller hubs and stern frame boss

(3) For water lubricating type stern tube bearings, a means of measuring the clearance between the propeller shafts and their bearings is provided

(4) For oil lubricating type stern tube bearings, a suitable means of ascertaining the performance of the stern tube bearings including oil sealing devices is to be provided

(5) A suitable means of ascertaining the position and identity of each blade of the propellers is provided

(6) Hinged gratings are installed on all sea chests and constructed so as to facilitate opening and closing by the diver

(7) Markings indicating the position of longitudinal and transverse bulkheads and the names of interior spaces on the hull below the load water line, so that the diver is able to orient his/her position relative to the ship

4 The Surveyor may require internal examinations or dry dock surveys where deemed necessary as a result of the In-water Survey.

EFFECTIVE DATE AND APPLICATION (Amendment 3-3)

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

2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships for which the date of contract for construction* is before the effective date.
*"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.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE

Part B Class Surveys

2007 AMENDMENT NO.3

Notice No.51 27th September 2007

Resolved by Technical Committee on 2nd July 2007

Notice No.51 27th September 2007
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 3-1

B1 GENERAL

B1.1 Surveys

B1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph B1.1.3-5(6) has been amended as follows.

(6) For ~~ships of ice classes~~ ice class ships with I*A Super* and I*A* defined in ~~1.2.5-1~~**1.2.5-2, Part A of the Rules**, which had been at beginning stage of construction before 1 September 2003, a survey is to be carried out for verification of the compliance with the requirements of ~~28.2.4-2, Part C~~**5.4.1-2, Part I of the Rules** by 1 January 2005 or 1 January in the year when 20 *years* have elapsed since the year the ship was delivered, whichever comes the latest.

Sub-paragraph **B1.1.3-5**(13) has been newly added as follows.

(13) With respect to the provisions of **5.1.2-3, Part I** of the Rules, ships built before 1 July 2007 and whose summer load line is located at a higher level than the *UIWL*, are to be provided with a warning triangle and with an ice class draught mark at the maximum permissible ice class draught amidships, not later than the first scheduled dry docking after 1 July 2007. In such case, the engine output and the maximum and minimum ice class draught fore, amidships and aft are to be indicated in the classification certificate.

EFFECTIVE DATE AND APPLICATION (Amendment 3-1)

1. The effective date of the amendments is 1 July 2007.

Amendment 3-2

B9 PLANNED MACHINERY SURVEYS

B9.1 Planned Machinery Surveys

Paragraph B9.1.3 has been amended as follows.

B9.1.3 Planned Machinery Maintenance Scheme (PMS)

1 Application of ~~the~~ PMS

(1) In principle, ~~The~~ PMS, ~~in principle,~~ applies to machinery and equipment installed in the following ships~~:~~.

(a) Ships with ~~The~~ machinery and equipment ~~to which the PMS applies are to be~~ less than 15 *years* old at the time of application.

(b) Ships ~~The ship is to be~~ operated by a shipowner~~/~~or ship management company that has ~~the~~an established maintenance system and organization.

(2) ~~The~~ PMS applies to the open-up examinations of ~~the~~ machinery and equipment prescribed in **B9.1.2-1**.

2 Terms

The definitions of terms which appear in **B9.1.3** are as specified in the following **(1)** and **(2)**.

(1) Maintenance management system

A computer system for managing the maintenance and inspection plans of machinery and its components that are subject to the Planned Machinery Maintenance Scheme

(2) Condition monitoring system

A system which is composed of displays for diagnosing the deterioration trend of the machinery and its components from data continuously or periodically measured by sensors and computers for saving and maintaining this data

~~2~~3 Application Procedure for ~~the~~ PMS

~~Where the PMS is intended to be applied~~To apply for PMS, the shipowner~~/~~or ship management company or ~~its agent~~representative is to submit an Application for PMS accompanying the following documents to the Society~~:~~.

(1) Documents for approval (3 sets: one for ship's file, one for shipowner's file and one for the Society's file)

(a) Machinery maintenance scheme

(b) Survey schedule table

(c) Function descriptions for maintenance management system

(d) The following documents in addition to **(a)** through **(c)** above, when applying for the condition monitoring maintenance method

i) Function description for condition monitoring system

ii) Condition monitoring procedures and sensor lists

iii) Kinds and contents of output information

(2) Documents for reference (1 set)

(a) Sample form of machinery maintenance records

(b) Chief Engineer's profile

(c) Organization chart identifying the section and the personnel responsibility for the machinery maintenance

~~3~~4 Approval of ~~the~~ PMS

Conditions for approval of ~~the~~ PMS are as follows:

(1) ~~Machinery Maintenance Scheme~~ Planned maintenance method

~~(a)~~ The machinery maintenance scheme for ~~the~~ PMS made by planned maintenance system is to cover the maintenance plans not only for ~~the~~ survey items but for all ~~the~~ machinery~~,and~~. It is to specify maintenance works such as overhaul inspection, replacement of parts and general inspection with their time schedule and/or running hours for each item of machinery and equipment including their parts. The scheme is to be prepared ~~by taking the experiences and knowledge of the shipowner and ship management company into consideration~~ based on the inspection and maintenance intervals recommended by the~~ir~~ manufacturers ~~for each~~of the machinery and equipment with input from the experiences and knowledge of the shipowner and ship management company. In principle, the ~~I~~inspection intervals for all items covered by ~~the~~ PMS are~~, in principle,~~ to be planned not to exceed 5 *years*. However, for the items whose overhaul intervals are specified on the basis of their running hours, longer intervals may be accepted as long as the intervals are based on the manufacturer's recommendations. When the machinery maintenance scheme is changed, the amended scheme is to be submitted to the Society for approval.

(2) Condition monitoring maintenance method

~~(b) Notwithstanding the requirement in **(a)**,~~ The machinery maintenance scheme is to cover the maintenance plan for all the machinery as **(1)** above. ~~I~~For ~~the~~ machinery, equipment and parts ~~provided~~ with ~~the~~a condition monitoring system which complies with the following requirements, the inspection intervals may be prolonged until an~~y~~ abnormal condition is observed ~~as the result of the analysis for the monitored condition~~. In this case, the machinery maintenance scheme for ~~the~~ PMS is also to cover all condition monitoring functions, criteria for judgment and procedures for monitoring, analysis and ~~course of action~~handling (including ~~those for~~ reporting ~~the~~ observed abnormal conditions to the Society) of the ~~provided~~ system.

~~i) The system is to be approved by the Society upon submission of drawings and data specified in **2.2.1**, **Chapter 2** of the **Rules for Preventive Machinery Maintenance Systems** and tested in accordance with the provisions specified in **2.2.2** through **2.2.4** of the same.~~

~~ii) The system is to be planned and provided in accordance with the requirements in **3.2.1**, **Chapter 3** of the **Rules for Preventive Machinery Maintenance Systems**.~~

(a) Condition monitoring systems are to be suitable to diagnose any deterioration of equipment or its components on the basis of the data from sensors or centralized machinery monitoring and control systems. The sensors are to be subject to the tests specified in **18.7.1, Part D of the Rules for the Survey and Construction of Steel Ships**.

(b) Condition monitoring systems are to be suitable to diagnose the condition on the basis of independent or coalesced data or their trends.

(c) Back-ups of the data can be made.

~~(c) When the machinery maintenance scheme is changed, the amended scheme is to be submitted to the Society for approval.~~

~~(d) The machinery maintenance scheme and the machinery maintenance records specified in **(3)** are to be programmed and maintained by a computerized system. However, where the condition monitoring system specified in **(b)** is provided, they are to be programmed and maintained by the maintenance management system in~~

~~accordance with the requirement in **3.3.1**, **Chapter 3** of the **Rules for Preventive Machinery Maintenance Systems**. They are to be backed-up at the regular intervals with suitable interface units.~~

~~(2)~~(3)Survey Schedule Table

Survey intervals of the survey items are not to exceed those specified in the machinery maintenance scheme. The following items are, as a rule, to be opened and examined in the presence of the Surveyor. ~~(The items provided with~~Where applied to the condition monitoring ~~system specified in **(1)(b)**~~ maintenance method, ~~may~~ the items are be opened and examined only when an~~y~~ abnormal condition is observed ~~as the result of the analysis for the monitored condition.)~~

(a) Crank pins and their bearings and crank journals and their bearings for main diesel engine
(b) Rotors, casings, main bearings, couplings between turbine and reduction gear, nozzle valves and manoeuvring valves for main steam turbine
(c) Auxiliary steam turbine for main generator
(d) Thrust shaft and the bearings for main propulsion
(e) Reduction gears for main propulsion
(f) Flexible couplings for main propulsion
(g) Other items deemed necessary by the Society.

When this survey schedule table is amended, the amended survey schedule table is to be submitted to the Society for approval.

~~(3)~~(4)Machinery Maintenance Records

Machinery maintenance records are to include at least the following items, and are to be programmed and maintained by the Maintenance management system. These records are to be retained on board the ship at all times.

(a) Date of maintenance work
(b) Signature by the Chief Engineer
(c) Details of maintenance work and results
(d) Total running hours (parts replacement intervals and overhaul intervals)
(e) Names of parts replaced
(f) Measuring data (including original design dimensions~~,~~ and allowable tolerance~~, etc.~~)
(g) The condition of damage and repair method

~~(4)~~(5)Condition monitoring records ~~(where the condition monitoring system specified in **(1)(b)** is provided)~~

Condition monitoring records are to include at least the following items ~~and to be retained on board at all times~~.

(a) Date of ~~the~~ condition monitoring and relevant content of survey
(b) Signature of the Chief Engineer at the condition monitoring
(c) Contents and results of ~~the~~ condition monitoring (including criteria for judgment)

~~(5)~~(6) Chief Engineer

The Chief Engineer in charge of ~~the~~ PMS is to be a person recommended by the shipowner~~/~~or ship management company and approved by the Society.

(7) Computer

Computers used for condition monitoring and diagnosis systems are to satisfy the following requirements specified in **(a)** through **(e)**:

(a) Computers are to be configured so that the effects of a system failure in part of the circuits or devices can be limited to a certain range as far as possible.
(b) Each system component is to be protected against overvoltages (electrical noise) likely to enter through input/output terminals.

(c) Central processing units and important peripheral devices are to have a self-monitoring function.

(d) Important programmes and data are not to be deleted in the event of a temporary failure of the external source of power supply.

(e) Spare parts for important system components that require specialist services for repairs are to be supplied in readily replaceable part units.

~~4~~5 Surveys for ~~the~~ PMS

(1) Initial Survey

The initial survey is to be carried out by the Surveyor within one *year* from the date of approval for application of ~~the~~ PMS, and it is to be verified that ~~the~~ planned machinery maintenance is being carried out in accordance with the approval scheme.

(2) ~~Confirmatory~~Annual Survey

General examinations (including review of maintenance records) are ~~The confirmatory survey is~~ to be carried out yearly ~~and it is to be verified~~to confirm that the planned machinery maintenance is being carried out by the approved Chief Engineer in accordance with the approved scheme ~~and the~~on relevant machinery, equipment, and parts, and that these items are in good condition ~~etc. to be covered is placed in their good conditions by general examinations on them and review of their maintenance records~~. Where the condition monitoring s~~ystem specified in **3(1)(b)** is provided~~ maintenance method is provided, it is to be verified that condition monitoring has been properly carried out and as ~~the~~a result of which, machinery, equipment and parts are in good order. ~~and the system itself is also in good order through performance tests and general examinations in accordance with the requirements in **2.3.2, Chapter 2** of the **Rules for Preventive Machinery Maintenance Systems**~~ Confirmation that the condition monitoring system and maintenance management system are being operated effectively and is also in good order is to be made. Condition monitoring data and the results of the diagnosis are to be evaluated before the survey and are to be retained on board at all times.

(3) Special Survey

Where the condition monitoring ~~system~~ maintenance method ~~specified in **3(1)(b)** is provided~~applied, ~~performance tests or general examinations are to be carried out in accordance with the requirements in **2.3.1, Chapter 2** of the **Rules for Preventive Machinery Maintenance Systems** to verify the condition monitoring system in good order~~ confirmation that the condition monitoring system and maintenance management system are being operated effectively and are also in good order is to be made. Condition monitoring data and the results of the diagnosis are to be evaluated before the survey and are to be retained on board at all times.

(4) Open-up Survey

The items prescribed in ~~**3(2)**~~ **4(3)** above are to be opened and examined in the presence of the Surveyor in accordance with the survey schedule table.

(5) Occasional Survey

Any damage~~s of the~~to items covered by ~~the~~ PMS or any abnormal conditions observed ~~as the results of the analysis for~~by the condition monitoring system specified in ~~**3(1)(b)**~~ **4.(2)** are to be reported to the Society immediately. Upon ~~the~~ review of the reports, the Society may request~~s~~ an occasional survey when considered necessary.

~~5~~6 Cancellation of ~~the~~ PMS

The Society may cancel approval ~~of the~~for PMS when ~~the PMS~~it is considered difficult to ~~be~~ continue~~d~~ PMS for any of the following reasons~~:~~.

(1) ~~The PMS~~It is found that PMS is ~~to be~~ not operated in accordance with the approved

scheme~~.~~

(2) Damage or ~~deficiency~~deficiencies found on items covered by ~~the~~ PMS ~~have~~has not been rectified by the date recommended~~.~~

(3) When the shipowner ~~/~~or ship management company ~~is~~has changed~~.~~

(4) When the class of the ship has been transferred~~.~~

Paragraph B9.1.4 has been deleted.

~~**B9.1.4 Preventive Machinery Maintenance Scheme (PMMS)**~~

(Omitted)

EFFECTIVE DATE AND APPLICATION (Amendment 3-2)

1. The effective date of the amendments is 1 October 2007.

Amendment 3-3

B2 CLASSIFICATION SURVEYS

B2.1 Classification Survey during Construction

B2.1.5 Hydrostatic and watertight tests

Sub-paragraph -3 has been amended as follows:

3 With respect to the provisions of **2.1.5(1), Part B of the Rules**, the watertightness of watertight doors (including other watertight closing appliances of internal openings required to be watertight for ships subject to the requirements of **Chapter 4, Part C of the Rules**) is to be confirmed by hose tests specified in **-2(3)** above, unless hydrostatic tests were carried out with the head of water specified in **13.3.3-1, Part C** or **13.3.3-1, Part CS** of **the Rules** after installation in the ship. The hose tests ~~for watertight doors~~ are to be carried out from each side of doors unless exposure to floodwater is anticipated only from one side. Where a hose test is not practicable because of possible damage to installations around the door, it may be replaced by means deemed appropriate by the Society.

EFFECTIVE DATE AND APPLICATION (Amendment 3-3)

1. The effective date of the amendments is 1 October 2007.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships for which the date of contract for construction* is before the effective date.
*"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 3-4

B1 GENERAL

B1.4 Preparation for Survey and Others

B1.4.2 Preparation for Surveys

Sub-paragraphs -3 and -4 have been amended as follows.

1 The preparation for surveys specified in **1.4.2, Part B of the Rules** includes taking consideration for dangers. The term "dangers" used here includes improper arrangement of scaffoldings, non-availability of lighting, fire, explosion, electric shock, falling of things, harmful gases and oxygen shortage, etc.

2 Any applicant for survey is to make necessary preparations for survey fittings (including temporary staging and passages through structures and rafts etc.), cleaning of compartments, freeing from water, scale, dirt, oil residues and gas, sufficient lighting, non-destructive testing equipment and other items required for the tests and examinations, to reveal corrosion, deformation, fractures, damages, or other structural deterioration. However, the areas of structure whose renewal has already been decided by the owner need only be cleaned and descaled to the extent necessary to determine the limits of the renewed areas. As to means of access for survey (including temporary staging, boat, etc.), the requirements specified in **Chapter 35, Part C of the Rules "Means of Access"** are to be applied and their soundness is to be verified.

3 ~~In case where survey is to be carried out in afloat condition of the ship, i~~In addition to the preparations for survey as specified in **-1** and **-2** above, the applicant is to make preparations as specified in the following **(1)** ~~and **(2)** ~~to **(3)**. Furthermore, in case where the preparation for survey is made by the crew members of the ship, the applicant is to give necessary instructions to the crew members in order to assist the Surveyor.

(1) A communication system between the survey party in the tank and the responsible officer on deck

(2) Portable gas detector, potable oxygen-meter, breathing apparatus, lifelines, safety belts and whistle

(3) Adequate and safe lighting and protective clothing

4 Surveys of tanks by means of boats or rafts may only be made with the agreement of the Surveyor, who takes into account the safety arrangements provided, including weather forecasting and ship response under foreseeable conditions and provided the expected rise of water within the tank does not exceed 0.25 *m*. In this case, in addition to preparations as specified in **-1** to **-3**, the applicant is to ~~make preparations for survey specified in **(1)** and **(2)** below~~ ensure the following.

(1) A communication system is to be arranged between the survey party on the boats or rafts in the tank and the personnel in charge of ballast pump handling.

(2) Appropriate ~~l~~life jackets are to be available for all participants.

(3) The tank or space is to contain clean ballast water only.

(4) The boat or raft is to be tethered to the access ladder and an additional person is to be stationed down the access ladder with a clear view of the boat or raft.

(5) When raising the water level in a tank or space, necessary attention is given to the boat or

raft not being isolated from an escape route by the deck transverses.

5 Boats or rafts used in the survey as specified in **-4** above are to have satisfactory residual buoyancy and stability even if one chamber is ruptured. And further, the condition for accepting use of boats or rafts during a survey of the under deck areas, of oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk, for tanks or spaces is as follows:

(1) Boats or rafts alone may be allowed for survey of the areas if the depth of the webs is 1.5 *m* or less.

(2) If the depth of the webs in the areas is more than 1.5 *m*, boats or rafts alone may be allowed only:

(a) When the coating of the under deck structure is in GOOD condition and there is no evidence of wastage; or

(b) If a permanent means of access is provided in each bay to allow safe entry and exit. This means of access is to be:

i) direct access from deck via a vertical ladder and a small platform is to be fitted approximately 2 *m* below the deck; or

ii) access to deck from a longitudinal permanent platform which is to be of the full length of the tank and arranged in level with or above maximum water level needed for rafting of under deck structures and to have ladders to deck in each end of the tank. The maximum water level is to be assumed not more than 3 *m* from deck plate measured at the midspan of deck transverses and in the middle length of the tank.

If neither of the above conditions are met, then staging or other equivalent means is to be provided for the survey of the under deck areas.

(3) The use of boats or rafts alone in **(1)** and **(2)** above does not preclude the use of boats or rafts to move about within a tank during a survey.

6 In oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk, the following documents from **(1)** to **(9)** are to be kept on board the ship to be readily available for the Surveyor. In general dry cargo ships of not less than 500 *gross tonnage*, the following documents at least **(1)** and **(3)** are to be kept on board the ship.

(1) Records on structural surveys

(2) Condition evaluation report (see the requirement in **B5.2.6-5(4)** for oil tanker)

(3) Thickness measurement reports

(4) Main structural plans for hull

(5) Cargo and ballast history

(6) Previous repair history

(7) Records of inspections by ship's personnel with reference to the structural deterioration in general, the leakage in bulkheads and piping and the condition of coating or corrosion prevention system, if any

(8) In oil tankers, extent of use of inert gas plant and tank cleaning procedures
However, in ships which do not engage in international voyage and are classed for restricted service such as having class notation "*Coasting Service*", "*Smooth Water Service*", etc., as specified in **1.4.2-2, Part B of the Rules**, keeping the document of **(2)** above on board may be dispensed with.

(9) Any other information that will help identify Suspect Areas requiring inspection

7 For oil tankers and bulk carriers, an applicant is to be submitted a Survey Planning Questionnaire including the following information from (1) to (6) prior to the development of Survey Programme referred to **1.4.2-2, Part B of the Rules.**

(1) Basic ship information and particulars

(2) Information on access provision for close-up surveys and thickness measurement

(3) Records of inspections by owner with reference to the structural deterioration in general. (specified in **-6(7)** above）
(4) List of the reports of Port State Control inspections containing hull structural related deficiencies, relevant information on rectification of the deficiencies
(5) List of non-conformities related to hull maintenance, including the associated corrective actions
(6) Name, address and Approval Number of the approved thickness measurement company

Sub-paragraph -8 has been amended as follows.

8 Survey Programme referred to **1.4.2-2, Part B of the Rules**, is to include the following information from **(1)** to **(8)**. For oil tankers and bulk carriers, it is to include the following information from **(9)** to **(15~~5~~6)** in addition to **(1)** to **(8)**. When Survey Program is submitted to the Society, a copy of each document specified in **-6** above is to be attached. The survey programme is to be agreed between the applicant and the surveyor.
(1) Basic ship information and particulars
(2) Plan of tanks/holds
(3) List of tanks/holds to be surveyed with information on prevention and condition of coating
(4) Nomination of tanks and areas for Close-up Survey
(5) Nomination of tanks and sections for Thickness Measurement
(6) Nomination of tanks for tank testing
(7) Conditions for survey (including provisions for access, etc.)
(8) Equipment for surveys
(9) Minimum thickness of hull structures
(10) Thickness measurement company (if it is changed from the one specified in the Survey Planning Questionnaire)
(11) Damage and repair experience related to the ship
(12) Area identified with substantial corrosion from previous surveys
(13) Critical structural areas and suspect areas (if such information is available)
(14) Main structural plans for hull
(15) Survey Planning Questionnaire specified in **-7** above
(16) For intermediate surveys, the survey programme at the previous special survey

9 The documents of **-6 (1)** to **(3)** above for oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk are to be available also in the owner's offices.

Sub-paragraph -10 has been amended as follows.

10 ~~For Bulk Carriers specified in **1.3.1(13), Part B of the Rules**,~~ "~~p~~Provisions of an easy and safe access" referred to in **1.4.2-1, Part B of the Rules** are as specified in (1) through (3).
(1) For close-up surveys of the hull structure, other than cargo hold shell frames of bulk carriers:
(a) Permanent staging and passages through structures
(b) Temporary staging and passages through structures
(c) Lifts and movable platforms
(d) Boats or rafts for ballast tanks and cargo tanks
Boats or rafts may be applicable to void spaces and other similar spaces provided that the structural capacity of the ~~tank~~ space is sufficient to withstand static loads at all levels of water.

(e) Portable ladders
(f) Other equivalent means

(2) For close-up surveys of the cargo hold shell frames of bulk carriers less than 100,000DWT:
(a) Permanent staging and passages through structures
(b) Temporary staging and passages through structures
(c) Portable ladder restricted to not more than 5m in length may be accepted for surveys of lower section of a shell frame including bracket
(d) Hydraulic arm vehicles such as conventional cherry pickers, lifts and movable platforms
(e) Boats or rafts provided the structural capacity of the hold is sufficient to withstand static loads at all levels of water
(f) Other equivalent means

(3) For close-up surveys of the cargo hold shell frames of bulk carriers of 100,000DWT or more:
(a) For Annual surveys, Intermediate surveys under 10 years of age and Special survey No.1:
i) Permanent staging and passages through structures
ii) Temporary staging and passages through structures
iii) Hydraulic arm vehicles such as conventional cherry pickers, lifts and movable platforms
iv) Boats or rafts provided the structural capacity of the hold is sufficient to withstand static loads at all levels of water
v) Other equivalent means

Notwithstanding the above, the use of a portable ladder fitted with a mechanical device to secure the upper end of the ladder is acceptable for the close-up survey of side frames at Annual surveys. However, it is not acceptable for the close-up survey of suspect area identified at the previous survey or the ongoing survey.

(b) For Subsequent Intermediate Surveys and Special surveys:
i) Permanent staging and passages through structures
ii) Temporary staging and passages through structures
iii) Hydraulic arm vehicles such as conventional cherry pickers for surveys of lower and middle part of side frames
iv) Lifts and movable platforms
v) Boats or rafts provided the structural capacity of the hold is sufficient to withstand static loads at all levels of water
vi) Other equivalent means

11 For Special Surveys, the following preparations in **(1)** to **(4)** are to be made, as a rule.

(1) At the first Special Survey, the preparations are to be made as specified in **(a)** to **(e)** below;
(a) Coal and ballast are to be removed, articles not permanently attached to the hull removed as far as possible, all limber boards removed, mud boxes opened and strainers of bilge suction pipes exposed and interior of the hull cleared.
(b) For single bottom construction, at least one strake of bottom ceilings is to be removed on each side of the centerline and in way of bilge, and flooring plates to be removed in machinery space where considered necessary.
(c) For double bottom construction, ceiling is to be removed as required by the Surveyor and the condition of the top plating is to be examined.
(d) For holds insulated for carriage of refrigerated cargo, the limber boards and hatch

covers are to be removed.

(e) Tanks and compartments are to be thoroughly cleaned out, gas freed for fuel oil tanks and cargo tanks to secure safety during examinations if considered necessary.

(2) At the second Special Survey, in addition to the requirements in **(1)** above, the preparations are to be made as specified in **(a)** and **(b)** below;

(a) Throughout the ship, in way of single bottoms, one strake of ceilings on each side near to keelson is to be removed.

(b) In way of double bottom and deep water or oil tanks, ceilings at bilge (including limber) and center line part, lower parts of pillars and bulkheads, shaft tunnels and any other parts considered necessary by the Surveyor are to be removed.

(3) At the third Special Survey, in addition to the requirements in **(2)** above, the preparations are to be made as specified in **(a)** to **(f)** below;

(a) Almost all of ceilings and linings in holds and coat bunkers and of flooring plates in machinery space are to be removed, rust of outside and inside of the ship throughout are to be chipped off.

(b) Throughout the ship, an extensive amount of ceiling in way of single bottom, double bottom and deep water or oil tanks are to be removed.

(c) For holds insulated for carriage of refrigerated cargo, the limber boards and hatch covers are to be removed, and further insulation throughout the spaces to be removed from where considered necessary by the Surveyor.

(d) Wood sheeting and deck composition on steel decks are to be removed as required by the Surveyor and part of the cement chocks on the ship's sides at bilges and decks to be removed.

(e) In way of cabin accommodations, the paneling below side scuttles is to be removed and to be further removed where considered necessary by the Surveyor.

(f) Lubricating oil tanks are to be thoroughly cleaned out and gas freed to secure safety during examinations.

(4) At the fourth subsequent Special Surveys, in addition to the requirements in **(3)** above, the preparations are to be made as specified in **(a)** and **(b)** below;

(a) Throughout the ship, in way of single bottoms, one strake of ceilings on each side near to keelson is to be removed.

(b) In way of double bottom and deep water or oil tanks, an extensive amount of ceilings are to be removed.

12 For bulk carriers as defined in **1.3.1(13), Part B of the Rules** and for bulk carriers as defined in **31A.1.2(1), Part C of the Rules** which are at beginning stage of construction on or after 1 July 2006, when checking records of inspection, it is to be confirmed that hatch covers are maintained in accordance with the resolution *MSC*.169(79) "*Standards for owner's inspection and maintenance of bulk carrier hatch covers*". Notwithstanding the above, for bulk carriers of less than 500 *gross tonnage*, and those not engaged on international voyages with Class Notation "*Coasting Service*", "*Smooth Water Service*" or equivalent, it may be waived.

B3 ANNUAL SURVEYS

B3.2 Annual Surveys for Hull, Equipment, Fire extinction and Fittings

B3.2.2 General Examination

Sub-paragraph -1 has been amended as follows.

1 General examination of "closing appliances of hatchways" specified in **item No.3 of Table B3.2, Part B of the Rules** is to be carried out through **(1)** to **(4)** below.

(1) In case where the controlled atmosphere systems are installed on board, the examination of controlled atmosphere zones in **D17.3(1)(a)**

(2) All hatch cover platings and hatch coaming platings

(3) Items through **(~~i~~a)** to **(~~ix~~k)** below of mechanically operated hatch covers

(~~i~~a) Tightness devices of longitudinal, transverse and intermediate cross junctions (gaskets, gasket lips, compression bars, drainage channels)

(~~ii~~b) Clamping devices, retaining bars, cleating

(c) Closed cover locating devices

(~~iii~~d) Chain or rope pulleys

(~~iv~~e) Guides

(~~v~~f) Guide rails and track wheels

(~~vi~~g) Stoppers, etc.

(~~vii~~h) Wires, chains, gypsies, tensioning devices

(~~viii~~i) Hydraulic system essential to closing and securing

(~~ix~~j) Safety locks and retaining devices

(k) End and internal hinges, pins and stools

(4) Items through **(~~i~~a)** to **(~~viii~~h)** below of portable hatch covers, wooden or steel pontoons

(~~i~~a) Wooden covers and portable beams, carriers or sockets for portable beam, and their securing devices

(~~ii~~b) Steel pontoons

(~~iii~~c) Tarpaulins

(~~iv~~d) Cleats, battens and wedges

(~~v~~e) Hatch securing bars and their securing devices

(~~vi~~f) Loading pads or bars and the side plate edge

(~~vii~~g) Guide plates and chocks

(~~viii~~h) Compression bars, drainage channels and drain pipes

2 Particular attention is to be paid to the condition of the weld connection between air pipes and deck plating.

3 The examination specified as item No.14 in **Table B3.2, Part B of the Rules** includes checking whether movable fire extinguishers and portable fire extinguishers remain effective and whether air bottles of self-contained breathing apparatus are charged.

EFFECTIVE DATE AND APPLICATION (Amendment 3-4)

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

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

Amendment 3-5

B2 CLASSIFICATION SURVEYS

B2.1 Classification Survey during Construction

B2.1.2 Submission of Plans and Documents for Approval

Sub-paragraph -1 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;

(1) Hull structural drawings are to include scantling details, material details, location of butts and seams, cross section details as necessary, details of welding such as sizes and proportions applicable to the ship and other necessary information unless specified otherwise. For hull structures subject to the requirements of **20.1.3, Part C**, **31A.3.6, Part C**, **Part CSR-B** or **Part CSR-T**, renewal thicknesses are to be indicated in the relevant drawings.

(~~1~~2) Midship Section

(a) d_s and *L*, *V*, *W* and C_b corresponding d_s, in case that scantling draught (d_s) over *d* specified **2.1.12, Part A of the Rules** is used for application of **Part C of the Rules**

(b) Kind of freeboard assigned by the requirements of **Part V of the Rules**

(c) Draught in *metres* corresponding to designed timber freeboard, in case that timber load line is intended to be marked

(d) The position of freeboard deck in ships with multiple decks

(~~2~~3) Construction Profile

(a) The points of fore end of L_f specified in **A2.1.3** and $0.25L_f$ therefrom

(b) For car decks of vehicles carrier, the route on which the vehicles run frequently during the cargo operation (the deck area which is subject to the dynamic load in the vicinity of ramp way and is on the vehicular traffic route between a ramp way and another ramp way to reach another deck)

(c) For ships fitted with movable car decks, plans of their supporting structures is to be included

(~~3~~4) Shell Expansion

Comparative table between the standard sheer specified in **Part V of the Rules** and actual sheer on the exposed deck, in case that exposed freeboard or superstructure deck has a well formed by bulwarks and end bulkheads of superstructure

(~~4~~5) Arrangements of Scupper Pipes

The Summer Load Line determined by the requirements of **Part V of the Rules** and Lines of 600 *mm*, $0.01L_f$ and $0.02L_f$ above it and of 450 *mm* below freeboard deck

Instead of the Summer Load Line the maximum designed load line upper than it may be acceptable.

Paragraphs B2.1.6 and B2.1.7 have been added as follows.

B2.1.6 Documents to be maintained on board

1 Test plans, test records and measurement records for the ship specified in **2.1.6-2(10), Part B of the Rules** are to include the following items. The allowable deviations referred to in **(1)** below mean allowable values stipulated in appropriate standards such as *JSQS* or other equivalent values that are applied to the ship.

(1) Measurement records of the ship's principal dimensions including allowable deviations

(2) Details of markings for the load lines and their measurement records including allowable deviations

(3) For hydrostatic tests, watertight tests, and relevant tests, approved test plans including details of the test requirements

2 Documents to be included in the Ship Construction File stipulated in **2.1.6-2, Part B of the Rules** need not to be actually in the File nor stored in the same location, provided that the location, status and other necessary information of such documents are addressed in the File.

B2.1.7 Finished Plans

1 Items to be indicated in hull structural drawings specified in **2.1.7(2), Part B of the Rules** are to be in accordance with **B2.1.2-1**.

2 Scantling plans specified in **2.1.7(2), Part B of the Rules** mean drawings containing construction arrangements and scantlings of hull structural members including fore and aft ends structures unless specified otherwise. When the necessary information is available in other drawings submitted under the provisions of **2.1.7(2), Part B of the Rules**, scantling plans do not need to be submitted separately.

B6 DOCKING SURVEYS

B6.1 Docking Surveys

B6.1.2 In-water Surveys

Existing text has been amended as follows.

The approval of application of In-water Survey specified in **6.1.2, Part B of the Rules** is to be subject to following conditions through **(1)** to **(3)**.

(1) Application

In principle, In-water Survey is applicable to ships up to 15 *years* of age.

~~(2) Plans and documents~~

~~Following plans and documents are to be submitted for approval by the Society.~~

~~(a) Plans of shell plating below waterline showing the details of the location and sizes of shell openings, location of bottom plugs, location of bilge keels, location of water- and oil-tight bulkheads, location of welded seams and butts and location of anodes;~~

~~(b) Detailed information or drawings of constructions and arrangements indicated in **(3)**~~

~~below, together with their colour photographs, and detailed instructions for inspection of such constructions and arrangements;~~

~~(c) Documents showing the procedure which enables the Surveyor to confirm the satisfaction of rudder bearing clearances or performances of stern tube bearing based on a review of the operating history, on board testing or stern oil sample reports where special consideration is given to **(3)(a)** or **(3)(d)** below; and~~

~~(d) Other data which may serve the inspections.~~

~~(3) Construction and arrangement~~

~~Constructions, arrangements, etc. of ships which are intended to be subjected to In-water Survey are to comply with the following. Where the documents specified in **(2)(c)** above are submitted, special consideration may be given to **(a)** or **(d)** below.~~

~~(a) Rudder is to be provided with the means of facilitating the measurement of clearance in way of each pintle.~~

~~(b) Rope guard ring plates are to be of such construction as to facilitate the inspection of shaftings between propeller hubs and stern frame boss.~~

~~(c) In case of water lubricating type stern tube bearings, the devices which may indicate the clearance between propeller shafts and these bearings are to be provided.~~

~~(d) In case of oil lubricating type stern tube bearings, suitable means of ascertaining the performances of stern tube bearings including oil sealing devices are to be provided.~~

~~(e) Suitable means of ascertaining the position and identity of each blade of propellers from inboard are to be provided.~~

~~(f) Hinged gratings are to be installed on all sea chest and constructed so as to facilitate opening and closing by the diver.~~

~~(g) To the hull below load water line, markings identifiable of the position of longitudinal and transverse bulkheads and the name of spaces are to be made for the diver.~~

(~~4~~2) Condition of the survey

In-water Survey is to be carried out under following conditions in **(a)** through **(c)** to ensure that the information obtained by In-water Survey is as reliable as that obtained by surveys in dry dock or on slipway.

(a) In-water Survey is to be carried out in the presence of the Society's Surveyor with the ship, the hull below the waterline of which is cleaned enough, at its possible lightest draught and in the sheltered water where in-water visibility is good enough.

(b) Diving and in-water survey operations are to be carried out by the firm has been approved by the Society under the **Rules for Approval of Manufacturers and Service Suppliers** which is separately specified. The services of a diver well-experienced in the in-water surveying operations as well as in the operation of in-water cameras and in-water televisions are to be available for the In-water Survey.

(c) While the survey is under way, the in-water television being in use is to be arranged in such a manner as to be watched and controlled by the Surveyor, and means are to be provided to keep at all times good communication between the Surveyor and the underwater diver. Means are to be provided to take colour photographs.

~~(5) Others~~

~~The Surveyor may require internal examinations or surveys in dry-dock where deemed necessary as a result of the In-water Survey.~~

EFFECTIVE DATE AND APPLICATION (Amendment 3-5)

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

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