RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part B Class Surveys

2009 AMENDMENT NO.2

Rule No.45 30th October 2009

Resolved by Technical Committee on 24th June 2009 and 25th September 2009

Approved by Board of Directors on 28th July 2009 and 27th October 2009

Rule No.45 30th October 2009
AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

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

Part B CLASS SURVEYS

Amendment 2-1

Chapter 2 CLASSIFICATION SURVEYS

2.1 Classification Survey During Construction

2.1.6 Documents to be Maintained on Board

Sub-paragraph -1(2)(c) has been amended as follows.

1 At the completion of a classification survey, the Surveyor confirms that the finished versions of the following applicable drawings, plans, manuals, lists, etc., 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) For independent tank of Type *B*, programs of the non-destructive test for periodical surveys (**Table B5.27**)
  (k) For membrane and semi-membrane tanks and internal insulation tanks, programs of the examination and testing of cargo containment systems for periodical surveys (Note (*1) to **Table B5.27**)
  (l) Coating Technical File (**25.2.2**, **Part C**, **22.4.2**, **Part CS**, **1.2.2 Section 5 Chapter 3**, **Part CSR-B** and **2.1.1.2 Section 6, Part CSR-T**)
  (m) Plans and documents for in-water surveys (**6.1.2-2**)
(2) Other documents
  (a) Towing and mooring fitting arrangement plans (**27.2.4, Part C** or **23.2.4, Part CS**)
  (b) Operation manuals for the emergency towing arrangement (**27.3, Part C**)
  (c) Booklets for ~~the~~ damage control and Damage Stability Information (**33.3.2, Part C** and **33.3.3, 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**

Chapter 3 ANNUAL SURVEYS

Table B3.1 has been amended as follows.

Table B3.1 Examination of Plans and Documents

Items	Examination
1 Loading Manual	・ For ships required to have the manual on board in accordance with the requirements of **34.1.1** and **34.3.1, Part C**, and **25.1.1, Part CS**, confirmation that the manual is kept on board is to be made.
2 Stability Information Booklet	・ Confirmation as to whether the booklet is kept on board is to be made.
3 Damage Control Plan ~~and~~, Booklet and Damage Stability Information	・ For ships required to have the damage control plan on board in accordance with the requirement in **Chapter 33, Part C**, confirmation that the approved plan is exhibited and the booklet containing the information shown in the plan and the damage stability information ~~is~~are kept on board is to be made.
4 Fire Control Plan	・ Confirmation that the fire control plan is exhibited and properly stored is to be made.
5 Operating and Maintenance Manual for the door and inner door and notices indicating procedures for closing and securing	For ships required to have the manual and notices on board in accordance with the requirements in **Chapter 23, Part C**, and **Chapter 21, Part CS**; ・ Confirmation that the manual is kept on board is to be made. ・ Confirmation that the board is exhibited is to be made.
6 Instruction Manuals for the Inert Gas System	・ For ships required to have the manual on board in accordance with the requirements of **4.5.5, Part R**, confirmation that the manual is kept on board is to be made.
7 Towing and Mooring Fitting Arrangement Plan	・ Confirmation that the Towing and Mooring Fitting Arrangement Plan specified in **27.2, Part C** or **23.2, Part CS** is kept on board is to be made.
8 Ship Structure Access Manual	・ For ships required to have the manual on board in accordance with the requirements of **35.2.6, Part C** or **26.2.6, Part CS of the Rules**, confirmation that the manual is kept on board and updated as necessary is to be made.

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 January 2009.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

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

Amendment 2-2

Chapter 1 GENERAL

1.1 Surveys

1.1.1 Classification Surveys

Sub-paragraph -1 has been amended as follows.

1 All ships (except steel barges, submersibles, mobile offshore drilling units, work boats, etc.**,** and floating offshore facilities for crude oil/petroleum gas production, storage and offloading) intended to be classed with the Society are to be subjected to Classification Surveys by the Surveyor in accordance with the requirements of **Chapter 2**. Classification Surveys of steel barges, submersibles, mobile offshore drilling units, work boats, etc., floating offshore facilities for crude oil/petroleum gas production, storage and offloading are to be in accordance with the requirements of **Chapter 10**, **11** ~~and~~ **, 12** and **14** respectively.

1.1.2 Class Maintenance Surveys

Sub-paragraph **-1** has been amended as follows.

1 Ships (except steel barges, submersibles, mobile offshore drilling units, work boats, etc. , and floating offshore facilities for crude oil/petroleum gas production, storage and offloading classed with the Society are to be subjected to Class Maintenance Surveys by the Surveyor in accordance with the requirements of **Chapter 3** through **Chapter 9** of this Part. Class Maintenance Surveys of steel barges, submersibles, mobile offshore drilling units, work boats, etc., floating offshore facilities for crude oil/petroleum gas production, storage and offloading are to be in accordance with the requirements of **Chapter 10**, **11** ~~and~~ **, 12** and **14** respectively.

Chapter 14 has been added as follows.

Chapter 14 SURVEY FOR FLOATING OFFSHORE FACILITIES FOR CRUDE OIL/PETROLEUM GAS PRODUCTION, STORAGE AND OFFLOADING

14.1 General

14.1.1 Application

1 The surveys of floating offshore facilities for oil crude/petroleum gas production, storage and offloading (hereinafter referred to as "Floating Offshore Facility" in this Chapter) specified in **Part PS** are to be in accordance with the requirements given in this Chapter.

2 In the case of items not specified in this Chapter, the requirements specified in **Chapter 12** and **Chapter 13** are to be applied.

14.2 Classification Surveys

14.2.1 General

At Classification Surveys during construction, the hull, equipment, fire protection and detection means, means of escape, fire extinction means, machinery, electrical installations, etc. are to be examined in detail in order to ascertain that they meet the relevant requirements given in **Part PS**.

14.2.2 Submission of Plans and Documents for Approval

1 At the Classification Surveys during construction of Floating Offshore Facilities, the following plans and documents are to be submitted to the Society for approval before the work is commenced.

(1) Hull
- (a) General arrangement
- (b) Cross section
- (c) Longitudinal section
- (d) Details of inspection facilities
- (e) Details of welding procedures
- (f) Information regarding corrosion control procedures adopted for each part of the Floating Offshore Facility
- (g) Arrangement and construction of positioning system (including related equipment, such as windlasses, etc.)
- (h) Summary of the distributions of fixed and variable weights
- (i) Plan indicating the design loads for all decks
- (j) Stability information booklet (including information for towing)
- (k) Loading manual
- (l) Details of maintenance and inspection procedures and docking plans and in-water inspection procedures
- (m) In the case of column-stabilized Floating Offshore Facilities, construction of all columns, lower hulls, footings, bracing, etc.
- (n) Pumping arrangements (indicating the capacity of each tank, water or oil)
- (o) Construction for fire protection (indicating the details of fire protection)
- (p) Plans showing the means of escape (escape routes including their details, such as the widths of passages, etc.)

(q) Plans showing fire extinction arrangements (arrangement, type, capacity, etc., of fire extinguishers and fire detectors, etc.)
(r) Other plans and/or documents deemed necessary by the Society

(2) Machinery
(a) Machinery arrangement in machinery spaces, diagrams for internal communication systems
(b) Piping diagram (both for machinery spaces and the entire Floating Offshore Facility, including protection against any spraying of fuel/lubrication oil, etc.)
(c) Prime movers including attached auxiliaries (plans and data specified in **2.1.2, 3.1.2** and **4.1.2, Part D** corresponding to the kind of prime mover)
(d) Power transmission gears, shaftings and propellers (plans and data specified in **5.1.2, 6.1.2, 7.1.2** and **8.1.2, Part D**)
(e) Boilers, etc., incinerators and pressure vessels (plans and data specified in **9.1.3, 9.1.3-2** and **10.1.4, Part D**)
(f) Storage and off loading systems (their arrangement and plans/data specified in **14.1.2,** and **14.5.2, Part D**)
(g) General arrangement and diagram of production systems (plans and data specified in **9.3.2, Part PS**)
(h) Automatic and remote controls (plans and data specified in **18.1.3, Part D**)
(i) Electrical installations (plans and data specified in **1.1.6, Part H**)
(j) Other plans and/or documents deemed necessary by the Society

2 In the Classification Surveys during construction of Floating Offshore Facilities, the following plans and documents are to be submitted for reference in addition to those specified in **-1** above.
(1) Methods and calculation sheets of structural analysis for relevant loading condition
(2) Data or documents on environmental conditions used for the determination of design loads, which indicate in detail the past measurement data of the service area such as wind, waves, current, etc., and the calculation method of the total external force and moment due to winds, waves, currents and tidal currents, reaction of positioning systems and other loads
(3) Documents on the effects of loading, stability and the projected area due to icing or snowing, if any
(4) Calculation sheets for intact and damage stability at all conditions
(5) Relating to above **(2)** to **(4)**, documents concerning model tests or computing methods in cases where loads and stability are determined using appropriate model tests or computing methods
(6) Lines of hulls
(7) Cross curves of stability
(8) Curves of righting moments and wind heeling moments
(9) Capacity plans and sounding tables of tanks
(10) Method and location of the non-destructive inspections and procedures of thickness measurements
(11) Plans indicating the arrangement of watertight compartments, openings, their closing appliances, etc. necessary for stability calculations
(12) In the case of machinery installations used for the safety of Floating Offshore Facilities or for positioning systems, plans and documents required in the relevant Chapters given in **Part D**
(13) In the case of machinery installations used solely for the specific purpose of Floating Offshore Facilities (including production systems, etc.), plans and documents indicating the safety devices of machinery installations and those specified in **Chapter 9** and **Chapter 10, Part D**
(14) Operating booklets and emergency operation manuals which are defined in **1.2.8** and **1.2.9, Part PS**
(15) Plans and documents indicating an outline of the construction work schedule (including the

work to be completed, or equipment to be installed onboard Floating Offshore Facilities at the building shipyard or engineering companies where the midway stage of construction work is made prior to the installation of Floating Offshore Facilities at their site of operation)

(16) Towing methods and strength caluculation sheets during towing

(17) Procedures for onboard testing (including testing in cases where equipment is installed on Floating Offshore Facilities and any testing before and during the installation of Floating Offshore Facilities at their site of operation, etc.) and stability experiments

(18) Calculation sheets on positioning systems

(19) Installation procedures of positioning systems and production systems, etc., and the installation work procedures of Floating Offshore Facilities at their site of operation

(20) Plans and documents specified in each Chapter of **Part PS**

(21) Other plans and/or documents deemed necessary by the Society

3 The installation work procedures specified in **-2(19)** above are to include the following as applicable. The work process of each item is to include a method of confirming the adequacy of completed work as well as relevant judgement criteria.

(1) A general outline of all of the systems of a Floating Offshore Facility and its periphery facilities, including such items as positioning systems, risers, sub-sea pipelines, pipeline end manifolds (PLEM), etc.

(2) Documents indicating the condition of the seabed at the site of operation where a Floating Offshore Facility is installed

(3) The installation procedures of seabed mooring points including things such as sinkers and piles and the procedures of connecting mooring lines to seabed mooring points including at least the following:

(a) Necessary preparations and processes for the installation of the Floating Offshore Facility (including information about the rigging arrangements for piles, chaser piles and driving hammers as well as information about the work barges used, etc.)

(b) Procedures for positioning and orientation of seabed mooring points (including the criteria for allowable deviations in positioning and orientation)

(c) Item list to be confirmed before the completion of work and their criteria for acceptance (driven depth of the piles, sank depth of the sinker, etc.) corresponding to the type of seabed mooring points (sinkers, piles, etc.) used

(d) Procedures for connecting mooring lines to seabed mooring points including precautions to prevent the twisting of moorings

(4) Procedures for the tensioning tests of mooring lines

(a) Rigging arrangements for the tensioning tests of mooring lines and seabed mooring points

(b) Work ship (barge) set up to carry out such tests

(c) Detailed tensioning procedures

(d) Mooring line retrieval and abandoning procedures

(5) Procedures for hooking up mooring lines to Floating Offshore Facilities

(a) Rigging and towing procedures of Floating Offshore Facilities for hooking them up to mooring lines

(b) Preferred ballast condition of Floating Offshore Facilities prior to the hook up

(c) Procedures for the sequential hook up of mooring lines, the repositioning of Floating Offshore Facilities and the tensioning of the lines

(d) Method of determining the correct tension of chains and acceptable design tolerances

(e) In the case of Floating Offshore Facilities that employ single point mooring systems, procedures for determining the positioning of the Floating Offshore Facility relative to PLEM or wellhead and the acceptable design tolerances for such position

(f) In the case of turret mooring, the method of securing turrets against movement and the

overall safety precautions for the entire hook-up installation

(g) Procedures for tensioning by the ballasting of Floating Offshore Facilities (if applicable in the case of tension mooring systems, etc.)

(6) Procedures for hooking up flow line systems to the receiving sides of Floating Offshore Facilities (import systems), and flow line systems to the offloading side of Floating Offshore Facilities (export systems)

(a) Procedures for the hook up of import systems

i) Handling and rigging of flexible risers during installation,

ii) Positioning of work vessels for various purposes during installation,

iii) Procedures for the installation of buoyancy tanks, supports, clump weights, if applicable, etc. (including precautions against damage); and,

iv) Tie-in rigging methods for the hook up of both ends of risers.

(b) Procedures for the installation of export systems

i) Rigging, handling, make-up of export systems and precautions against damage during installation

ii) Fitting of all the necessary accessories and navigation aids

iii) Procedures for paying out the hose string into the sea

iv) Procedures for the pressure tests of hoses (including testing pressure and duration)

14.2.3 Presence of Surveyors

1 At Classification Surveys during construction, the presence of a surveyor is required at all stages of the work on hull construction, equipment, machinery and electrical installations in cases where the tests, examinations or inspections specified in **2.1** and **14.2.4** to **14.2.8** are carried out and in cases where the submitted plans and documents regarding tests, examinations or inspections specified in **14.2.2** are verified by the Society.

14.2.4 Hydrostatic and Watertight Tests

1 Hydrostatic and watertight tests conducted during Classification Surveys during construction are to be in accordance with **2.1.5.**

2 In the case of machinery and electrical installations related to production systems and the pipes and hoses installed on Floating Offshore Facilities during off loading, hydrostatic, leakage or airtight tests are to be carried out as specified in each Chapter of **Part D** and **Part PS** corresponding to the kind of machinery.

14.2.5 Survey during Construction for the Hulls of Floating Offshore Facilities

1 Surveys at shipbuilding yards, etc. where the hulls of Floating Offshore Facilities are constructed, are to be carried out in accordance with **Chapter 2** for those survey items that are considered to be in common with those of ordinary ships.

2 In cases where production systems are installed on board Floating Offshore Facilities at works different from the shipbuilding yards where hull structures are constructed (including the sea areas of the site of operation), surveys necessary in order to tow the hull structures of Floating Offshore Facilities to their site of operation are to be carried out.

3 For those cases specified in **-2** above, the tests, examinations or inspections for the support structures of installations are to be carried out at suitable places/occasions before the final inspection at the site of operation.

14.2.6 Survey for Storage Facilities

In the case of the equipment found in storage facilities (piping systems for crude oil, crude oil pumps, venting systems, inert gas systems, etc.), tests and surveys are to be carried out in accordance with the requirements for the cargo oil systems of tankers specified in **14.8, Part D** as

applicable.

14.2.7 Surveys for Production and Off Loading Systems

1 The following surveys are to be carried out during the fitting out of production and off loading systems:

(1) It is to be verified that all pipping is adequately and firmly fixed. Piping which is used for flammable liquids such as crude oil, etc., is to be subjected to leakage tests at test pressures of 1.25 times design working pressure after fitting work has been completed.

(2) It is to be verified that all electrical installations are adequately and firmly fixed. Insulation resistance tests are to be carried out after fitting work has been completed.

(3) It is to be verified that all machinery is adequately and firmly fixed. Performance tests are to be carried out after fitting work has been completed.

(4) Production systems are to be examined and verified that they do not endanger the Floating Offshore Facility or its crew under operating conditions.

2 It is to be verified that the offloading systems for Floating Offshore Facilities (export systems) which are permanently and exclusively equipped for such Floating Offshore Facilities are fitted out as designed. In such cases, the hose string bend radii, hose flange gaskets, the positioning of navigation aids, the correct locations of break-away couplings, the tightening of the flange bolts are also verified for compliance with the procedures.

14.2.8 Surveys during the Installation of Floating Offshore Facilities at their Site of Operation

1 During the installation of positioning systems, the following items are to be verified and surveyed by the attending surveyor:

(1) The components of positioning systems are to be examined for abnomalities before installation.

(2) Certificates are to be confirmed for those components which are required to be tested at manufacturer facilities.

(3) The area around the seabed mooring points is to be examined and reported on by divers or remotely operated vehicles (ROVs) before installation to ensure that there is no obstruction.

(4) During the installation of Floating Offshore Facilities to their seabed mooring points, the following is to be verified:

  (a) Proper locking of all connecting shackles from mooring lines to seabed mooring points, and from mooring lines to mooring lines.

  (b) Sealing of all kenter shackle locking pins

  (c) Correct size and length of all the components of mooring lines

  (d) Whether seabed mooring points are installed in their designed positions and are orientated within allowable design tolerance

(5) Mooring lines are to be confirmed to be paid out as designed and in accordance with predetermined procedures.

(6) After mooring systems are deployed at their site of operation, the following tensioning tests are required for each mooring line:

  (a) During tests, each mooring line is to be pulled to its maximum design load determined by dynamic analysis for the intact design condition and held at that load for 30 *minutes*. The integrity of the entire mooring line from the seabed mooring point to the connecting end at the hull structure of the Floating Offshore Facility as well as movement of the seabed mooring point is to be verified.

  (b) Notwithstanding **(a)** above, the test load for soft clay may be modified as deemed appropriate by the Society. Even in such cases, however, test loads cannot be reduced less than 80% of the maximum intact design loads.

  (c) Notwithstanding **(a)** and **(b)** above, the tensioning tests of mooring lines may be waived in

cases where detailed invetigation reports are submitted to the Society and deemed appropriate. In such cases, however, preloading each seabed mooring point is required. The load of this preloading is not to be less than the mean intact design tension, and such that the integrity and proper alignment of mooring lines can be verified.

(7) Mooring lines are to be verified for firm and adequate connections to chain stoppers.

(8) It is to be verified that the relative position of the single point mooring center of single point mooring systems to PLEMs is in compliance with design specifications and tolerances.

(9) Catenary angles of mooring lines are to be measured and verified for compliance with design specifications and tolerances.

(10) During installation, it is to be verified that the risers and other supporting facilities of Floating Offshore Facilities are not deformed or damaged, buoyancy tanks, etc. are in their correct position, and flow lines are firmly and adequately connected.

(11) Upon completion of installation, the connection of Floating Offshore Facilities to their periphery facilities is to be verified for compliance with design specifications. Divers or ROVs are to be arranged as necessary for the survey of any underwater parts deemed necessary by Surveyors.

14.2.9 Onboard Testing and Stability Experiments

1 During the onboard testing of Floating Offshore Facilities, the following items are to be verified and surveyed by the attending surveyor.

(1) Performance tests of positioning systems (performance tests of windlasses, etc.)

(2) Performance tests of such systems that are necessary for adjusting the draught, inclination, etc. of Floating Offshore Facilities, like ballasting systems

(3) Running tests of machinery and electrical installations, etc. (during their operation, no abnormalities in the condition of Floating Offshore Facilities are found)

(4) The accumulation tests of boilers

(5) Confirmation of safety systems (fire/gas detection systems, fire fighting systems, Emergency Shutdown Systems)

(6) Function tests of communication systems

(7) Emergency procedures against oil spills, fires, etc.

(8) Confirmation of fire fighting systems
  (a) Fire pumps
  (b) Fixed fire-extinguishing systems
  (c) Portable fire extinguishers

(9) Function tests of detection and alarm systems
  (a) Fire detection systems
  (b) Gas detection systems
  (c) Control panels of fire/gas detection systems
  (d) ESD systems

(10) Confirmation that all systems of Floating Offshore Facility systems are functioning normally

(11) Confirmation of production systems (controlling system, emergency shutdown, etc.)

(12) Confirmation of purging capability.

(13) Confirmation of flare systems

However, if the items specified above are verified by simulating installed conditions at shipbuilding yards, such tests may be dispensed with after installation.

2 The results of onboard tests are to be submitted to the Society as Onboard Testing Records.

3 Equipment which cannot be verified due to special reasons that are related to such equipment only being capable of functioning after start-up and commissioning is to be identified for verification at the next annual survey.

4 Stability experiments are to be carried out at suitable occasions after the completion of the main structures of Floating Offshore Facilities and before proceeding to the site of operation. A stability information booklet prepared on the basis of the stability particulars determined by the results of stability experiments is to be approved by the Society and provided on board.

14.2.10 Classification Surveys of Floating Offshore Facilities not Built under Survey

1 During the Classification Surveys of Floating Offshore Facilities not built under Society surveys, the actual scantlings of the main parts of Floating Offshore Facilities are to be measured in addition to the examination of the main structures, equipment, machinery, fire protection, means of escape, fire extinguishing arrangements, electric installations, stability, etc. in order to ascertain that they meet the relevant requirements given in **Part PS** as required for the Special Survey corresponding to the age, kind and purpose of the Floating Offshore Facilities.

2 In the case of those Floating Offshore Facilities intended to be surveyed in accordance with **-1** above, the plans and documents as required by the requirements given in **14.2.2** are to be submitted for Society approval.

3 Hydrostatic and watertight tests are to be carried out in accordance with the requirements given in **14.2.4**.

4 Onboard testing and stability experiments are to be carried out in accordance with the requirements given in **14.2.8**. However, onboard testing and stability experiments may be dispensed with provided that sufficient information based on previous tests is available and neither alteration nor repair affecting onboard testing has been made after such previous tests.

14.3 Class Maintenance Surveys

14.3.1 Application

1 Periodical surveys for the hull structures of Floating Offshore Facilities (the hull parts of Special Surveys, Intermediate Surveys, and Annual Surveys as well as the survey items for Docking Surveys) are to be in accordance with those specified in **Chapter 13**.

2 Periodical Surveys for equipment, machinery, fire extinguishing systems, etc. are to be carried out in accordance with relevant provisions given in **Chapter 3** to **Chapter 12**, at such times as specified in **1.1.3**. In the case of crude oil loading/off-loading piping, venting systems for storage tanks, inert gas systems, etc., the relevant requirements for tankers are to be applied.

3 In addition to **-1** and **-2** above, necessary items (positioning systems, production systems, etc.) unique to Floating Offshore Facilities are to comply with the requirements specified in this Chapter.

14.3.2 Annual Surveys and Intermediate Surveys for Floating Offshore Facilities

1 Annual Surveys and Intermediate Surveys for Floating Offshore Facilities are to be carried out according to **14.3.2** as well as according to **14.3.1-1** and **-2** for hulls, equipment, machinery, etc.

2 During the Annual Surveys and Intermediate Surveys for positioning systems, the following are to be carried out:

(1) General examinations of structures of mooring line stoppers (including their foundations)

(2) General examinations of mooring line tensioning equipment

(3) Measurements of the catenary angles of mooring lines in order to confirm that tensions remain within their designed permissible limit. In cases where mooring wires are used, wire tensions are to be confirmed to be within designed permissible limits by using methods appropriate for such wires.

(4) Visual inspections of mooring lines above the water to confirm no wear/tear.

(5) General examinations of turrent mooring system bearings (including confirmation of the

effectiveness of lubricating systems)

(6) General examinations of all of the parts of structures, equipment, etc. above water and so far as can be seen/accessible to confirm no harmful corrosion, wear, damage, etc.

(7) Confirmation of no abnormalities in the working condition of mooring system equipment (winches, windlasses, etc.).

3 The piping for importing and transferring crude oil etc. from seabeds are to be surveyed as follows during Annual Surveys and Intermediate Surveys and are to be confirmed to be in good order:

(1) General examinations of the swivels, flexible risers, floating hoses, etc. associated with the import piping, expansion joints, seals, etc. which transfer crude oil, etc. from seabeds, and are attached to Floating Offshore Facilities.

(2) Confirmation of that swivels are without leaks

(3) Visual examinations and demonstrations of the functions of navigation aids for floating hoses

(4) Confirmation that riser tensioning arrangements are in proper functioning order

(5) General examinations of electrical equipment installed in hazardous areas

4 During Annual Surveys and Intermediate Surveys for production systems, the following are to be carried out:

(1) Review of maintenance records (test items required at Annual/Special surveys, those results, alterations, if any, etc. are to be recorded.)

(2) Visual examinations and performance tests of the following systems:

(a) Remote shutdown systems of fuel oil systems and ventilation systems

(b) Emergency shutdown systems

(c) Emergency control stations

(d) Safety valves/relief valves

(e) General condition of piping, equipment, etc.

(f) Alarm systems, escape arrangements (including the general conditions of escape routes, lighting arrangements, etc.)

(g) General examinations of structures, piping, etc. which are at risk of damage (flare towers, etc.)

(h) General examinations of explosion proof equipment

(i) Others deemed necessary by Surveyors

14.3.3 Special Surveys for Floating Offshore Facilities

1 Special Surveys for Floating Offshore Facilities are to be carried out according to **14.3.3** as well as according to **14.3.1-1** and **-2** for hulls, equipment, machinery, etc.

2 During the Special Surveys for positioning systems, the following general examinations and performance tests are to be carried out in addition to **14.3.2**. Divers, video cameras, etc. are to be arranged as necessary in order to carry out examinations of underwater parts:

(1) Measurements of tension acting on the mooring lines

(2) General examinations of mooring lines (entire length including end attachments for connections)

(3) Close examinations and measurements of dimension reductions for the mooring lines in way of areas which are potential hazards for excessive corrosion and wear (areas subject to abrasion, i.e. seabed connecting parts, wind-and-water areas near the water line, etc.)

(4) General examinations and non-destructive tests of mooring lines and stoppers on board Floating Offshore Facilities (to be cleaned up before surveys)

(5) General examinations of turrets and their related equipment. Reductions of thickness due to corrosion are to be measured for structure members with heavy corrosion, and for Floating Offshore Facilities in which 15 or more *years* have passed since being commissioned

(6) General examinations of intermediate buoyancy tanks
(7) General examinations and nondestructive tests for high stress level areas, or relatively short fatigue life areas (to be cleaned up before surveys)
(8) General examinations of the parts connecting mooring lines to seabeds (to be cleaned up before surveys)
(9) Measurements of cathodic potential readings at representative underwater locations of positioning systems to confirm the effectiveness of cahtodic protection systems within a designed acceptable range

3 In cases where it is not reasonable or practicable to be in accordance with **-2** above due to mooring system type, etc., operators or designers may submit alternative survey procedures based on their experiences or the recommended practice of the manufacturers of such Floating Offshore Facilities, etc. In cases where such procedures are deemed acceptable by the Society, surveys may be carried out in accordance with such procedures.

4 In addition to **14.3.2**, the piping for importing and transferring crude oil, etc. from seabeds are to be surveyed as follows during Special Surveys and are to be confirmed to be in good order:
(1) Swivels are to be disassembled and examined for wear, leaks, etc. Upon completion of reconditioning, fluid swivels are to be hydrostatically tested, and electrical swivels are to be insulation tested. Disassembly, however, may be waived if deemed acceptable by the Society providing that no abnormalities are found by general examination.
(2) Close examinations of the piping for receiving crude oils, etc. fitted on board Floating Offshore Facilities are to be carried out. In cases where deemed necessary by surveyors, open-up inspections and non-destructive tests may be required. In such cases, hydrostatic tests are to be carried out after reassembly.
(3) The piping for exporting crude oils, etc. from Floating Offshore Facilities is to be generally examined. Hydrostatic tests for floating export hoses are to be carried out. Hydrostatic tests, however, may be waived if deemed acceptable by the Society providing that no abnormalities are found by general examination.
(4) Close examination of riser suspension and tensioning arrangements fitted on board Floating Offshore Facilities are to be carried out to confirm no harmful abnormalities (corrosion, wear, etc.).

5 During the Special Surveys for production systems, the following visual inspections and performance tests are to be carried out in addition to **14.3.2**:
(1) Open-up inspections of pressure vessels and safety valves
(2) Close examinations of production system piping to confirm no abnormalities (corrosion, wear, damages, leaks, etc.). In cases where any abnormalities are found, thickness measurements, hydrostatic tests, etc. are to be carried out as required.
(3) Measurements of the insulation resistance of generators and motors
(4) Examinations of electrical equipment and circuits for possible damage
(5) General examinations of rotating machinery under running condition (confirmation of no abnormal vibrations)
(6) Confirmation of the functions of the controlling systems for production systems

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 30 October 2009.
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.

Amendment 2-3

Chapter 5 SPECIAL SURVEYS

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

Table B5.8 has been amended as follows.

Table B5.8(1) Requirements for Thickness Measurements for Cargo Ships

Special Survey	Structural members subject to thickness measurement
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. Suspect areas ~~2. In cargo holds where cargoes highly corrosive to steel such as logs, salt, coal, and sulphide ore have been loaded: lower parts of web (thinnest parts of web in case of built-up type frame) and their end brackets of at least three hold frames at forward, middle and aft parts on both sides of each cargo hold, and one lowest strake and strakes in way of tween decks of all watertight transverse bulkheads in cargo spaces together with internals in way~~ ~~3. For top side tanks, bilge hopper tanks and deep tanks used as ballast tanks: both ends and middle part (including face plate) of one transverse ring or corresponding main structural members in one tank selected arbitrarily from each type~~
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. Suspect areas 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 within 0.5*L* amidships ~~(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 that are prone to accelerate corrosion have been carried~~ ~~3. In cargo holds specified in 2. of Special Survey No.1: lower and upper parts of web (thinnest parts of web in case of built-up type frame) and their end brackets of an appropriate number of hold frames (at least 1/3 of whole number frames in each cargo hold) at forward, middle and aft parts on both sides of each cargo hold, and all lowest strakes and strakes in way of tween decks of all watertight transverse bulkheads in cargo spaces together with internals in way~~ ~~4. In cargo holds other than 3. above, structural members specified in 2. of Special Survey No.1~~ ~~5. Both ends and middle part of each hatch side and end coaming (plating and stiffeners)~~ ~~6. For top side tanks, bilge hopper tanks and deep tanks used as ballast tanks: 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 one tank selected arbitrarily from each type~~ ~~7. For remaining top side tanks, bilge hopper tanks and deep tanks used as ballast tanks: both ends and middle part of one transverse ring or corresponding main structural members (including face plate)~~
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. Suspect areas 2. ~~Following portions of structural members:~~ ~~(1) Each strength deck plate within 0.5*L* amidships~~ ~~(2)~~ Each plate and member in two transverse sections within 0.5*L* amidships. (in way of two different cargo spaces, if applicable) ~~For ships less than 100 *m* in length, the number of transverse sections may, however, be reduced to one.~~ ~~(3) One selected wind and water strake in way of cargo spaces outside 0.5*L* amidships on each side~~ ~~3. In all cargo holds, lower and upper parts of web (thinnest parts of web in case of built-up type frame) and their end brackets of an appropriate number of hold frames~~

	~~(at least 1/3 of whole number frames in each cargo hold) at forward, middle and aft parts on both sides of each cargo hold, and all lowest strakes and strakes in way of tween decks of all watertight transverse bulkheads in cargo spaces together with internals in way~~ ~~4~~3. Internals in fore and aft. peak tank ~~5~~4. Both ends and middle part of each hatch side and end coaming (plating and stiffeners) ~~6~~5. All cargo hold hatch covers (plating and stiffeners) ~~7. For all top side tanks, bilge hopper tanks and deep tanks used as ballast tanks: both ends and middle part (including face plate) of about half the number of transverse rings or corresponding main structural members and each plate at upper and lower parts of each bulkhead~~

Table B5.8(2) Requirements for Thickness Measurements for Cargo Ships

Special Survey	Structural members subject to thickness measurement
Special Survey for ships over 15 *years* and up to 20 *years* of age (Special Survey No.4)	1. Suspect areas 2. Following portions of structural members: (1) All exposed main deck plates, full length (2) Each plate and member in three transverse sections of cargo areas 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) All wind and water strakes, port and starboard, full length 3. Representative exposed superstructure deck plating (poop, bridge and forecastle deck) 4. All keel plates, full length, and an appropriate number of bottom plates in way of cofferdams, machinery spaces and aft end of tanks 5. Plating of sea chests, and shell plating in way of overboard discharges (as deemed necessary by the Surveyor) 6. In all cargo holds, all lowest strakes and strakes in way of tween decks of all watertight transverse bulkheads in cargo spaces together with internals in way ~~6~~7. Structural members specified in 3. to ~~7~~5. of Special Survey No.3
Special Survey for ships over 20 *years* of age (Special Survey No.5 and subsequent Special Surveys)	1. Suspect areas 2. ~~Each plate and member in three transverse sections within 0.5*L* amidships~~ ~~3.~~ Structural members specified in 2. to ~~6~~7. of Special Survey No.4 ~~(except 2.(2))~~

Table B5.21 has been amended as follows.

Table B5.21(2) Requirements of Thickness Measurements for General Dry Cargo Ships of not less than 500 *gross tonnage*

Special Surveys	Structural members subject to thickness measurement
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. Suspect areas 2. Structural members within the cargo length area: (1) Each deck plating outside the line of cargo hatch openings (2) Each deck plating inside the line of cargo hatch openings within 0.5*L* amidships (3) Each plate and member in two transverse sections, one in the midship 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 the following structural members for general assessment and recording of corrosion pattern: (1) Lower and upper parts of web (thinnest parts of web in case of built-up type frame) and their end brackets of a sufficient number (at least 1/3 of total number) of frames at forward, middle, and aft parts on both sides of 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 areas 2. Following portions of structural members (1) All exposed main deck plates, full length (2) Each plate and member in three transverse sections, one in the midship 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 the 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, and an appropriate number of bottom plates in way of cofferdams, machinery spaces and aft end of tanks 7. Plating of sea chests, and shell plating in way of overboard discharges (as deemed necessary by the Surveyor) 8. Structural members specified in 5. to 7. of Special Survey No.3 above

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 30 October 2009.

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 2-4

Chapter 1 GENERAL

1.3 Definitions

Paragraph 1.3.1 has been amended as follows.

1.3.1 Terms

The definitions of terms which appear in this Part are as specified in the following. Terms not define here are as defined in other parts of the Rules.

(1) ”Ballast tank” is a tank which is being used solely for water ballast. For a tank which is used for both cargo and water ballast, the followings requirements of **(a)** and **(b)** below are applied.
   (a) The tank is treated as a Ballast Tank when substantial corrosion has been found by internal examination of that tank.
   (b) For oil tankers and ships carrying dangerous chemicals in bulk, the tanks used for the carriage of cargo or ballast water as a routine part of the vessel’s operation are treated as Ballast Tanks. Cargo tanks in which water ballast might be carried only in exceptional cases per **MARPOL Annex I/18(.3)** are to be treated as cargo tanks.

(2) “Close-up survey” is a survey where the details of structural components are within the close visual inspection range of the Surveyor, i.e. preferably within reach of hand.

(Omitted)

1.4 Preparation for Surveys and Miscellaneous

Paragraph 1.4.2 has been amended as follows.

1.4.2 Preparation for Surveys

1 All such preparations as required for classification, periodical and other surveys and thickness measurements specified in this part as well as those which may be required as necessary by the Surveyor in accordance with the provisions in this Part are to be made by the Owners or their representatives at their responsibilities. The preparations are to include provisions of an easy and safe access, necessary facilities, certificates and records for the execution of the survey and thickness measurements, open-up examinations of equipment, removal of obstructions and cleaning. Inspection, measuring and test equipment, which Surveyors rely on to make decisions affecting classification are to be individually identified and calibrated to a standard deemed appropriate by the Society. However, the Surveyor may accept simple measuring equipment (*e.g.* rulers, measuring tapes, weld gauges, micrometers) without individual identification or confirmation of calibration, provided they are of standard commercial design, properly maintained and periodically compared with other similar equipment or test pieces. The Surveyor may also accept equipment fitted on board a ship and used in examination of shipboard equipment (*e.g.* pressure, temperature or rpm gauges and meters) based either on calibration records or comparison of readings with multiple instruments.

2 An applicant is to submit a Survey Programme that details survey items as part of the preparation for the Special Survey of oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks and for the Intermediate Surveys of bulk carriers, oil tankers and ships carrying dangerous chemicals in bulk with integral tanks over 10 *years* of age. To ships which do not engage in international voyage and classed for restricted service, such as having the class notation “*Coasting Service*”, “*Smooth Water Service*”, etc., this requirement need not apply.

3 An applicant for survey(s) is to arrange a supervisor (hereinafter referred to as "owner's representative") who is well conversant with the intended survey items for the preparation of the survey in order to provide the necessary assistance to the Surveyor according to his requests during the surveys.

4 Prior to the commencement of survey and measurement, a survey planning meeting is to be held by the surveyor(s), the owner's representative, ~~and~~ the thickness measurement company representative, where involved, and the master of the ship or an appropriately qualified officer of the ship appointed by the master, ship owner or Company so as to ensure the safe and efficient conduct of the survey and measurement work to be carried out.

Chapter 3 ANNUAL SURVEYS

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

3.2.2 General Examination

At Annual Surveys, examinations of hull, equipment, fire-extinction and fittings listed in **Table B3.2** are to be carried out.

Table B3.2 has been amended as follows.

Table B3.2 General Examination

Items	Examination
1 Shell plating 2 Weather deck plating	・ Confirmation that areas visible above the load waterline are in good condition.
(Omitted)	
20 Ship Identification Number	・ Confirmation that the markings of the ship's identification number for ships required to be so marked are in good condition.
21 Means of embarkation and disembarkation	・ Confirmation that the means of embarkation and disembarkation are in good condition.
Additional Requirement for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
2~~1~~2 Piping	・ Confirmation that cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump room, cargo compressor rooms and on weather decks are in good condition.
Additional Requirement for Bulk Carriers over 10 *years* of age	
2~~2~~3 Piping in the cargo holds	・ Confirmation that all piping and penetrations in cargo holds, including overboard piping, are in good condition.
Additional Requirement for General Dry Cargo Ships of not less than 500 *gross tonnage* and over 15 *years* of age	
2~~3~~4 Piping in the cargo holds	・ Confirmation that all piping and penetrations in cargo holds, including overboard piping, are in good condition.

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

Table B3.4 has been amended as follows.

Table B3.4(1) Internal Examinations of Spaces and Tanks

Items	Examination
Requirements for cargo ships except when specified otherwise	
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, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Engine room and boiler room	・ An internal examination is to be carried out.
2 Cargo pump rooms, other pump rooms adjacent to cargo tanks, cargo compressor rooms and cargo pipe tunnels	・ An internal examination is to be carried out after the areas are thoroughly cleaned out and free of gas. Attention is to be paid to the sealing arrangements of all penetrations of bulkheads, ventilating arrangements, foundations and gland seals of pumps and compressors.

3 Ballast tanks	・ For oil tankers, ships carrying dangerous chemicals in bulk with integral tanks and ships carrying liquefied gases in bulk over 5 *years* of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last intermediate Survey or special survey, is to be carried out. ・ For oil tankers other than double hull oil tankers, as defined in **B1.3.1 (12)** over 5 *years* of age, an internal examination of all tanks adjacent (i.e. with a common plane boundary) to a tank with heating coils is to be carried out. However, where coating was found to be in GOOD condition at the previous Intermediate Survey or Special Survey, that tank 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]	
(Omitted)	

Table B3.6 has been amended as follows.

Table B3.6 Thickness Measurements

Items	Note
Requirements for Cargo Ships except when specified otherwise	
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 provisions of **5.2.6-2**.
Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump rooms and cargo compressor rooms and on weather decks	・ When deemed necessary by the Surveyor as a consequence of the examination specified in **Table B3.2**, thickness measurements are to be carried out.
2 Structural members in ballast tanks	・ When extensive corrosion is found in the examination of ballast tanks specified in **Table B3.4** which is required for oil tankers, ships carrying dangerous chemicals in bulk with integral tanks and ships carrying liquefied gases in bulk over 5 *years* of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of **5.2.6-3**.
Requirements for Bulk Carriers	
(Omitted)	

Chapter 4 INTERMEDIATE SURVEYS

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

Table B4.2 has been amended as follows.

Table B4.2(2) Internal Examinations of Spaces and Tanks

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

Notes)

(1) “Representative ballast tanks” means ballast tanks which include, at least, fore and aft peak tanks and two (for double hull oil tankers, three) deep tanks within the cargo length area.

Chapter 5 SPECIAL SURVEYS

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

5.2.3 Performance Test

Sub-paragraph -2 has been amended as follows.

2 In addition to **-1** above, the performance tests and operation tests specified in **(1)** to **(~~7~~8)** below are to be carried out.

(1) Operation test for all mechanically operated hatch covers
(2) Hose tests listed in **Table 2.1** or equivalent, for all weathertight hatch covers
(3) Performance tests and operation tests for all bilge and ballast piping system
(4) For oil tankers and ships carrying dangerous chemical in bulk, performance tests and operation tests of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, pipe tunnels, cofferdams and void spaces, and on the weather deck
(5) For ships carrying liquefied gases in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces, and on weather deck
(6) For bulk carriers and general dry cargo ships of 500 *gross tonnage*, performance test and operation test of all piping systems within cargo holds, all ballast tanks and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams, void spaces, and other similar spaces bounding cargo holds, and those on weather decks
(7) Performance tests listed in item 1 of **Table B4.1,** for all water level detection and alarm systems.
(8) Performance test for the means of embarkation and disembarkation, for ships not less than 500 *gross tonnage* which are engaged on international voyages.

5.2.4 Internal Examinations of Spaces and Tanks

Sub-paragraph -3 has been amended as follows.

3 At Special Surveys for tankers and ships carrying dangerous chemicals in bulk with integral tanks, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.2** is to be carried out. Tanks and spaces identified as suspect areas at previous surveys are to be examined. The examination of the coating condition in ballast tanks for oil tankers and ships carrying dangerous chemicals in bulk is to be based on the coating criteria 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.

5.2.5 Close-up Surveys

Sub-paragraph -2 has been amended as follows.

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

5.2.6 Thickness Measurements

Sub-paragraph -3 has been amended as follows.

3 At Special Surveys for oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, notwithstanding the provision of **-2** above, thickness measurements are to be carried out according to **-1** for structural members listed in **Table B5.10-1,** and tanks and spaces identified as suspect areas at previous surveys. Stainless steel hull structure and piping except for clad steel may be exempted from thickness measurements where deemed appropriate by the Society. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with **Tables B5.11** through **B5.14**.

5.2.7 Pressure Tests

Sub-paragraph -3 has been amended as follows.

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

Table B5.5-1 has been amended as follows.

Table B5.5-1(1) Requirements of Close-up Surveys for Oil tankers and Ships Carrying Dangerous Chemicals in bulk

Special Survey	Structural members subject to the Close-up Survey
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. One Web Frame Ring (A) - in a ballast double hull tank[*1] for ships having double hull structure, or in a ballast wing tank, if any, or a cargo wing tank used primarily for water ballast for ships without double hull structure. 2. One Deck Transverse (B) - in a cargo tank or on deck 3. One Transverse Bulkhead (C) - in a ballast double hull tank[*1] (only for double hull ~~oil tankers~~) 4. The lower part of one Transverse Bulkhead (D) - in a ballast tank (except for double hull ~~oil tankers~~) 5. The lower part of one Transverse Bulkhead (D) - in a cargo wing tank[*2] 6. The lower part of one Transverse Bulkhead (D) - in a cargo centre tank
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. All Web Frame Rings (A) - in a ballast double hull tank[*1] for ships having double hull structure, or in a ballast wing tank, if any, or a cargo wing tank used primarily for water ballast for ships without double hull structure. 2. The knuckle area and the top part of one Web Frame Ring (~~H~~G) - in each remaining ballast tank (only for double hull ~~oil tankers~~) 3. One Deck Transverse (B) - in or on each of the remaining ballast tanks, if any (except for double hull ~~oil tankers~~) 4. One Deck Transverse (B) - in or on a cargo wing tank (except for double hull ~~oil tankers~~) 5. One Deck Transverse (B) - in or on two cargo centre tanks (two cargo tanks for double hull ~~oil tankers~~) 6. One Transverse Bulkhead (C) - in all ballast double hull tanks[*1] (only for double hull ~~oil tankers~~) 7. Both Transverse Bulkheads (C) - in a ballast wing tank, if any, or a cargo wing tank used primarily for water ballast (except for double hull ~~oil tankers~~) 8. The lower part of one Transverse Bulkhead (D) - in each remaining ballast tank (except for double hull ~~oil tankers~~) 9. The lower part of one Transverse Bulkhead (D) - in a cargo wing tank[*2] 10. The lower part of one Transverse Bulkhead (D) - in two cargo centre tanks ~~11. All Plating and Internal Structures (G) - in a ballast double hull tank[*1] for ships having double hull structure, or in a ballast wing tank for ships without double hull structure (only for ships carrying dangerous chemicals in bulk)~~

Table B5.5-1(2) Requirements of Close-up Surveys for Oil tankers and Ships Carrying Dangerous Chemicals in bulk

Special Survey	Structural members subject to the Close-up Survey
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	~~For oil tankers:~~ 1. All Web Frame Rings (A) - in all ballast tanks 2. All Web Frame Rings (A) - in a cargo wing tank (or a cargo tank for double hull oil tankers) 3. A minimum of 30% of all Web Frame Rings (A) - in each remaining cargo wing tank*3 (~~except~~ only for ~~double~~ single hull oil tankers) 4. One Web Frame Ring (A) - in each remaining cargo tank (~~only~~ except for ~~double~~ single hull oil tankers) 5. All Transverse Bulkheads (C) - in all cargo and ballast tanks 6. A minimum of 30% of all Deck and Bottom Transverses (E) - in each cargo centre tank (~~except~~ only for ~~double~~ single hull oil tankers) 7. Other areas considered necessary by the Surveyor (F) (only for oil tankers) ~~For ships carrying dangerous chemicals in bulk:~~ ~~8. All Plating and Internal Structures (G) - in all ballast tanks~~ ~~9. All Plating and Internal Structures (G) - in a cargo wing tank~~ ~~10. Complete Transverse Web Frame Ring (A) - in each remaining cargo tank~~ ~~11. All Transverse Bulkheads (C) - in all cargo tanks~~
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	As Special Survey No.3. Additional transverses included as deemed necessary by the Surveyor.

Note)

Letters in this table mean:

(A): Cross ties and complete transverse web frame ring including adjacent structural members such as shell plating, longitudinal bulkheads, longitudinal stiffeners, and brackets

(B): Including deck structural members adjacent to deck transverses such as deck plating, longitudinal stiffeners, and brackets

(C) and (D): Including vertical and horizontal girders and structural members adjacent to transverse bulkheads such as longitudinal bulkheads, inner bottom plating, hopper plating, bottom girders, brackets, and stiffeners; and internal structure of lower and upper stools, where fitted

(E): Including structural members adjacent to deck and bottom transverses such as deck plating, bottom plating, and longitudinal stiffeners

(F): Additional complete transverse web frame ring including adjacent structural members listed in A

~~(G): All tank structural members including all tank boundaries and internal and external structures on deck in way of the tank~~

(~~H~~G): The knuckle area includes the slope hopper plating and where it connects to the inner hull bulkhead and inner bottom plating; up to 2 *meters* from the corners along the bulkhead and double bottom; and adjacent structural members

The top part includes the top 5 *meters* (3 *meters* for ships carrying dangerous chemicals in bulk) of the web frame and adjacent structural members

*1: Double hull tank includes the double bottom tank, double side tank, and double deck tank, as applicable, even though these tanks are separate

*2: For double hull ~~oil tankers~~ that have no centre cargo tanks (as in the case of tank~~er~~s with a centre longitudinal bulkhead), transverse bulkheads in wing tanks are to be surveyed

*3: The 30% is to be rounded up to the next whole integer

Table B5.11 has been amended as follows.

Table B5.11 Requirements of Additional Thickness Measurements for Oil Tankers and Ships Carrying Dangerous Chemicals in bulk (Bottom Structure)

Structural member	Extent of Measurement	Pattern of Measurement
1. Inner bottom, bottom and hopper structure plating	a) Minimum of 3 bays across tank, including aft bay. Measurements around and under all bell mouths. b) Suspect plates and adjacent plates, if any	a) 5 point pattern for each panel between longitudinals and floors/webs b) 5 point pattern over 1*m* length for each panel between longitudinals
2. Inner bottom, bottom and hopper structure longitudinals	Minimum of 3 longitudinals in each bay where plating was measured.	3 measurements in line across flange and 3 measurements on vertical web.
3. Bottom girders and brackets ~~(only for oil tankers)~~	At fore and aft floors or transverse bulkhead bracket toes, and in centre of tanks.	Vertical line of single measurements on girder plating with one measurement between each panel stiffener, or a minimum of three measurements. Two measurements across face flat, if any. 5 point pattern on girder-bulkhead brackets, if any.
4. Bottom transverse webs/floors ~~(only for oil tankers)~~	3 webs/floors in bays where bottom plating was measured, with measurements at both ends and middle.	5 point pattern over 2m^2 area. Single measurements on face flat, if any.
~~5. Longitudinal girders and transverse floors in double bottom (only for ships carrying dangerous chemicals in bulk)~~	~~Suspect plates~~	~~5 point pattern over about 1 m^2~~
~~6~~5. Panel stiffening (if any)	Where fitted.	Single measurement
~~7~~6. Hopper structure web frame rings (~~only~~ except for ~~double~~ single hull oil tankers)	3 web frame rings in bays where bottom plating was measured.	5 point pattern over 1m^2 of plating. Single measurements on flange.
~~8~~7. Hopper structure transverse watertight bulkheads or swash bulkheads (~~only~~ except for ~~double~~ single hull oil tankers)	a) lower 1/3 of bulkhead b) upper 2/3 of bulkhead c) stiffeners (minimum of three)	a) 5 point pattern over 1m^2 of plating b) 5 point pattern over 2m^2 of plating c) For web, 5 point pattern over span (two measurements across web at each end and one at centre of span). For flange, single measurements at each end and centre of span.
~~9. Watertight bulkheads or watertight floors (only for ships carrying dangerous chemicals in bulk)~~	~~a) lower 1/3 of tank~~ ~~b) upper 2/3 of tank~~	~~a) 5 point pattern over about 1 m^2~~ ~~b) 5 point pattern on alternate plates over 1 m^2 of plating~~
~~10. Hopper structure web frame rings (only for ships carrying dangerous chemicals in bulk)~~	~~Suspect plates~~	~~5 point pattern~~

Table B5.12 has been amended as follows.

Table B5.12 Requirements of Additional Thickness Measurements for Oil Tankers and Ships Carrying Dangerous Chemicals in Bulk (Deck Structure)

Structural member	Extent of Measurement	Pattern of Measurement
1. Deck plating	・ Two transverse bands across tank	Minimum of three measurements per plate per band
2. Deck longitudinals	・ Minimum of 3 longitudinals in each of two bays (~~except~~ only for ~~double~~ single hull oil tankers) ・ Every third longitudinal in each of two bands with a minimum of one longitudinal (~~only~~ except for ~~double~~ single hull oil tankers)	3 measurements in line vertically on webs, and 2 measurements on flange (if fitted)
3. Deck girders and brackets	・ At fore and aft transverse bulkheads, bracket toes and in centre of tanks	Vertical line of single measurements on web plating with one measurement between each panel stiffener, or a minimum of three measurements. Two measurements across flange. 5 point pattern on girder-bulkhead brackets
4. Deck transverse webs	・ Minimum of two webs with measurements at both ends and middle of span	5 point pattern over about ~~2~~1m^2 (for ~~double~~ single hull oil tankers, ~~1~~2m^2) areas. Single measurement on flange.
5. Vertical webs and transverse bulkheads in wing ballast tank within 2*m* from deck (only for double hull ~~oil tankers~~)	・ Minimum of two webs, and both transverse bulkheads	5 point pattern over 1m^2 areas.
6. Panel stiffening	・ Where applicable	Single measurement

Table B5.13 has been amended as follows.

Table B5.13 Requirements of Additional Thickness Measurements for Oil Tankers and Ships Carrying Dangerous Chemicals in Bulk (Side Shell and Longitudinal Bulkheads)

Structural member	Extent of Measurement	Pattern of Measurement
1. Side shell and longitudinal bulkhead plating:		
・ Deckhead and bottom strakes, and strakes in way of horizontal stringers	・ Plating between each pair of longitudinals in a minimum of 3 bays	・ Single measurement
・ All other strakes	・ Plating between every 3rd pair of longitudinals in same 3 bays	・ Single measurement
2. Side shell and longitudinal bulkhead longitudinal on:		
・ Deckhead and bottom strakes	・ Each longitudinal in same 3 bays	・ 3 measurements across web and 1 measurement on flange
・ All others strakes	・ Every third longitudinal in same 3 bays	・ 3 measurements across web and 1 measurement on flange
3. Brackets fitted to longitudinals	・ Minimum of 3 at top, middle and bottom of tank in same 3 bays	・ 5 point pattern over area of bracket
4. Vertical webs and transverse bulkheads excluding deckhead area (only for wing ballast tanks of double hull oil tankers and ships carrying dangerous chemicals in bulk):		
・ Strakes in way of horizontal girders	・ Minimum of 2 webs and both transverse bulkheads	・ 5 point pattern over approximately 2 m^2 area
・ All other strakes	・ Minimum of 2 webs and both transverse bulkheads	・ 2 measurements between each pair of vertical stiffeners
5. Horizontal girders (only for ships carrying dangerous chemicals in bulk and wing ballast tanks of double hull oil tankers)	・ Plating on each girder in a minimum of 3 bays	・ 2 measurements between each pair of horizontal girder stiffeners
6. Horizontal girder stiffeners (only for ships carrying dangerous chemicals in bulk and wing ballast tanks of double hull oil tankers)	・ Where applicable	・ Single measurement
7. Web frames, transverses and cross ties (except for wing ballast tanks of double hull oil tankers and ships carrying dangerous chemicals in bulk)	・ 3 webs with minimum of three locations on each web, including in way of cross tie connections	・ 5 point pattern over about 2m^2 area, plus single measurement on flanges of web frame, transverses and cross ties
8. Lower end brackets opposite transverses (only for cargo tanks of double hull oil tankers)	・ Minimum of three brackets	・ 5 point pattern over approximately 2m^2 area, plus single measurement on bracket flanges

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 January 2010.

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 2-5

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 for classification by the Society, the following plans and documents are to be submitted for the approval by the Society before the work is commenced. The plans and documents may be submitted for examination by the Society prior to making an application for the classification of the ship as stipulated otherwise by the Society.

(1) Hull
  (a) General arrangement
    (Omitted)
  (z) Plans showing arrangement of the ship's identification number specified in **1.1.24, Part C**
  (aa) Towing and mooring fittings arrangement plan specified in **27.2, Part C** or **23.2, Part CS**
  (ab) Arrangement of the means of embarkation and disembarkation specified in **23.8, Part C** or **21.8, Part CS**
(2) Machinery
  (Omitted)

2.1.4 Presence of Surveyor

Sub-paragraph -1 has been amended as follows.

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

(1) When the tests for the materials prescribed in **Part K** and the equipment prescribed in **Part L** are carried out.
  (Omitted)
(7) When the hull is completed.
(8) When performance tests are carried out on closing appliances of openings, remote control devices, steering gears, anchoring and mooring equipment, emergency towing arrangements, means of embarkation and disembarkation (specified in **23.8, Part C** or **21.8, Part CS**), fire fighting systems, piping, etc.
(9) When rudder installation, keel line profiling, measurement of principal dimensions, measurement of hull deflection, etc. are carried out.
  (Omitted)

2.1.6 Documents to be Maintained on Board

Sub-paragraph -1 has been amended as follows.

1 At the completion of a classification survey, the Surveyor confirms that the finished versions of the following applicable drawings, plans, manuals, lists, etc., 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**)
  (Omitted)
  (l) Coating Technical File (**25.2.2**, **Part C**, **22.4.2**, **Part CS**, **1.2.2 Section 5 Chapter 3**, **Part CSR-B** and **2.1.1.2 Section 6, Part CSR-T**)
  (m) Plans and documents for in-water surveys (**6.1.2-2**)
(2) Other documents
  (a) Towing and mooring fitting arrangement plans (**27.2.4, Part C** or **23.2.4, Part CS**)
  (b) Operation manuals for the emergency towing arrangement (**27.3, Part C**)
  (Omitted)
  (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**)
  (q) Emergency Towing Procedures (**27.4, Part C** or **23.3, Part CS**)
(3) Finished plans specified in **2.1.7**

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 January 2010.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

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

Amendment 2-6

Chapter 12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNITS, WORK SHIPS, AND SPECIAL PURPOSE BARGES

12.2 Classification Survey during Construction

12.2.1 General

Sub-paragraph -2 has been amended as follows.

1 In the Classification Survey during construction, surveys are to be carried out on hull construction, equipment, machinery, construction of fire protection, means of escape, fire extinguishing systems, electrical installations, stability and load lines in order to ascertain that they meet the relevant requirements of **Part P**.
2 In the Classification Survey, surveys on materials, hull construction, equipment, machinery, etc. are to be carried out in accordance with the requirements specified in **12.2.2** ~~and~~to **12.2.~~3~~6** in addition to the relevant requirements specified in **Chapter 2**.

Paragraphs 12.2.2 and 12.2.3 have been amended as follows.

12.2.2 Submission of Plans and Documents

1 (Omitted)
2 (Omitted)
3 Notwithstanding the requirements given in **-1** and **-2**, when it is intended to build the work-ship specified in **1.2.3(2), Part P** for classification by the Society, the following plans and documents are to be submitted to the Society for approval before work is commenced in addition to relevant requirements specified in **2.1.2** and **2.1.3**.
(1) Plans for installations and machinery for the intended work (hereinafter referred to as "work-related installations")
(2) Plans for the supporting structures of work-related installations.
~~3~~4 Notwithstanding the requirements in **-1** ~~and~~to ~~-2~~**-3**, part of the plans and documents specified in **-1** ~~and~~to ~~-2~~**-3** may be omitted in accordance with the provisions specified otherwise by the Society, where the unit or machinery is to be built at the same place of manufacture based on plans and documents which have already been approved.

12.2.3 ~~Presence of the Surveyor~~ Presence of Surveyor

1 In the Classification Survey, the presence of the Surveyor is required at the following stages of the work in relation to hull construction, equipment, machinery and electrical installations.
(1) When specified by the requirements of **2.1.4-1** and **2.1.4-2** or when conducting the tests, examinations or inspections specified in **12.2.4,** and **12.2.5**
(2) For machinery and electrical installations, when the tests, examinations or inspections specified in **11.1.2** or **12.1.2, Part P** are carried out
(3) For column stabilized units, when the draught scales are fitted
(4) For large storage units, when the operation test of rupture hatches is carried out at a pressure below the design operational pressure

(5) For units requiring the mooring system specified in **Chapter 10, Part P**, when that system is installed on the unit
(6) For units with a dynamic positioning system, when components of the dynamic positioning system are installed on the units and tests are carried out in accordance with the testing procedure
(7) For work-ships, when performance tests are carried out on work-related installations.

2 The requirements specified in **-1** may be modified with regard to the actual status of facilities, technical abilities and quality control at the place of manufacture, except in the case of sea trials and stability experiments.

12.3 Annual Surveys

Paragraphs 12.3.2 and 12.3.3 have been amended as follows.

12.3.2 Annual Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

1 It is to be verified that the following documents and booklets have been kept on board and are readily available.
(1) The approved stability booklet
(2) Loading manual, for units which require one according to the requirements in **7.6.1-2, Part P**
(3) Operation booklet defined in **1.2.25, Part P**
(4) Testing procedure for dynamic positioning systems, for units with a dynamic positioning system
(5) Relevant items listed **Table B3.1** corresponding to the unit's hull structure and purpose

2 Annual Survey for hull, equipment, fire extinguishing systems and fittings

At Annual Surveys, the general condition of the following are to be examined as far as practicable, in addition to the relevant survey items specified in **3.2.2** through **3.2.7** corresponding to hull structure, equipment, purpose, etc.
(1) Mooring systems specified in **Chapter 10, Part P**, their fittings and adjacent hull construction
(2) For mobile offshore drilling units, exposed parts of the derrick, derrick substructure including supporting structure, and anchor racks
(3) Work-related installations and their supporting structures

3 For self-elevating units, general examinations of the following items are to be carried out in addition to **-1** and **-2** as far as practicable down to the waterline.
(1) Leg structures
(2) Jack frame, leg supporting structure and upper hull or adjacent platform structure

4 For column stabilized units, general examinations of the upper hull and its supporting structure and exposed parts of columns and bracing together with their connections are to be carried out in addition to **-1** and **-2** as far as practicable down to the waterline.

5 For ship-type units and barge-type units, general examinations of the surrounding construction of openings such as moon pools are to be carried out in addition to **-1** and **-2** as far as practicable down to the waterline.

12.3.3 Annual Surveys for Machinery and Electrical Installations

At Annual Surveys for machinery and electrical installations, general examinations of relevant machinery and electrical installations specified in **3.3** are to be carried out in addition to the following surveys.
(1) General conditions of electrical installations in hazardous areas are to be examined. For units of ten *years* of age and over, insulation resistance of these installations is to be measured. The measurement, however, may be dispensed with where proper measurement records are kept on

board and are found satisfactory by the Surveyor.

(2) For self elevating units, the condition of jacking or elevating systems and leg guides is to be examined.

(3) For units with a dynamic positioning system, a general examination of its components and a performance test in accordance with the testing procedure for dynamic positioning systems is to be carried out.

(4) General examinations of the work-related installations are to be carried out. In case where deemed necessary by the Surveyor, performance tests of work-related installations may be required.

EFFECTIVE DATE AND APPLICATION (Amendment 2-6)

1. The effective date of the amendments is 1 April 2010.

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.

3. Notwithstanding the provision of preceding **2.**, the amendments to the Rules may apply to ships for which the application is submitted to the Society before the effective date upon request by the owner.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE

Part B Class Surveys

2009 AMENDMENT NO.2

Notice No.62 30th October 2009

Resolved by Technical Committee on 24th June 2009 and 25th September 2009

Notice No.62 30th October 2009
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 2-1

B1 GENERAL

B1.1 Surveys

Paragraph B1.1.8 has been amended as follows.

B1.1.8 Laid-up Ships ~~Laid-up~~

For the commencement of lay-up, the Owner is required to submit the ~~following documents~~ three copies of the Application for Lay-up of Ship (**Form B1-1**) to the Society's local office.

~~(1) Three copies of the Application for the Ship Laid-up (**Form B1-1**)~~

~~(2) Certificate of Classification and Certificate of Installations Registration~~

Form B1-1 has been amended as follows.

Form B1-1

Date:

To Nippon Kaiji Kyokai

APPLICATION FOR ~~THE~~ LAY-UP OF SHIP ~~LAID-UP~~

We hereby request your approval for the lay-up of ship ~~laid-up~~, according to 1.1.8, Part B of the Rules and Guidance.

Ship's Name:
Classification Number:
Official Number:
Gross Tonnage:
Port of Registry:
~~Where~~ Laidy-up Location:
~~Date of Ship's~~ Laidy-up Date:
~~Period of Ship's~~ Laidy-up Period:

~~Further, the following certificates will be submitted for your reference.~~ The necessary survey will be carried out according to 1.1.8-2, Part B of the Rules regardless of whether Periodical or Planned Surveys are overdue, in cases where the lay-up will be canceled.

~~1. Certificate of Classification~~
~~2. Certificate of Installations Registration~~

Name and Address of Applicant

Signature

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 30 October 2009.

Amendment 2-2

B1 GENERAL

B1.1 Surveys

B1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph -5(3) has been amended as follows.

5 Occasional surveys specified in **1.1.3-3(5), Part B of the Rules** are as specified below:
(Omitted)

(3) For ice class ships with I*A Super* and I*A* defined in **1.2.5-2, Part A of the Rules**, which had been at the beginning stage of construction before 1 September 2003, a survey is to be carried out to verify compliance with the requirements of **5.4.1-2, Part I of the Rules** by ~~1 January 2005 or~~ 1 January in the year 20 *years* since the year the ship was delivered~~, whichever is later~~.
(Omitted)

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2010.

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.

Amendment 2-3

B1 GENERAL

B1.4 Preparation for Survey and Other Items

Paragraphs B1.4.2 has been amended as follows.

B1.4.2 Preparation for Surveys

(Omitted)

5 Boats or rafts used in the survey specified in **-4** above are to have satisfactory residual buoyancy and stability even if one chamber is ruptured. Moreover, the following conditions apply when using boats or rafts during a survey of tanks and spaces in the under deck areas of oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks.

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

(2) If the depth of the webs is more than 1.5*m*, boats or rafts alone may be allowed when at least one of the following conditions is satisfied:
   (a) The coating of the under deck structure is in GOOD condition and there is no evidence of wastage
   (b) A permanent means of access as described below is provided in each bay to allow safe entry and exit
      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 the deck from a longitudinal permanent platform which is to be of the full length of the tank and arranged in level with or above the maximum water level needed for rafting of under deck structures and to have ladders to the deck in each end of the tank. The maximum water level is to be assumed to be not more than 3*m* from the deck plate measured at the midspan of the deck transverses and in the middle of the length of the tank.

   If neither of the above conditions are met, then staging or another 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 with integral tanks, 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*, at least **(1)** and **(3)** of the following documents 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 tankers)
(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 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 and ships carrying dangerous chemicals in bulk, extent of use of inert gas plant and tank cleaning procedures

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

However, ships which do not engage in international voyages 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** need not keep onboard the document of **(2)** above.

7 For oil tankers, ships carrying dangerous chemicals in bulk with integral tanks and bulk carriers, the applicant is to submit a Survey Planning Questionnaire including the following information from **(1)** to **(6)** prior to the development of the Survey Programme referred to in **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 ship's personnel with reference to structural deterioration in general. (specified in **-6.(7)** above)
(4) List of the reports of Port State Control inspections containing hull structural related deficiencies and relevant information on rectification of those 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

8 The Survey Programme referred to in **1.4.2-2, Part B of the Rules**, is to include the following information from **(1)** to **(8)**. For oil tankers, ships carrying dangerous chemicals in bulk with integral tanks and bulk carriers, it is to include the following information from **(1)** to **(16)**. When the Survey Program is submitted to the Society, a copy of each document specified in **-6** above is to be attached. The contents of the Survey Programme are to be agreed upon between the applicant and the surveyor prior to commencement.

(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 pressure testing (including pipes for ships carrying dangerous chemicals in bulk)
(7) Safety conditions for survey (including provisions for access, etc.)
(8) Equipment for surveys
(9) Minimum thickness data of hull structures
(10) Thickness measurement company (if changed from the one specified in the Survey Planning Questionnaire)
(11) Damage and repair history
(12) Areas 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 For oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks, the documents of **-6 (1)** to **(3)** above are to be kept in the owner's office.

(Omitted)

13 For ships not less than 500 *gross tonnage* which are engaged on international voyages, Surveyors are to confirm that the means of embarkation and disembarkation are maintained in accordance with Section 4 of *MSC*.1/*Circ*.1331 "*Guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation*" by investigating the inspection records specified in **1.4.2-1, Part B of the Rules**.

14 With respect to **1.4.2-4, Part B of the Rules**, the following items are to be agreed upon between thickness measurement company representative and owner's representative during Intermediate or Special Survey meetings. And, documented records of these agreements, including where and when the meeting took place and who attended, are to be maintained.

(1) Reporting of thickness measurements on regular basis to the attending surveyor.

(2) Prompt notification to the surveyor in case of following findings:

(a) excessive and/or extensive corrosion or pitting/grooving of any significance;

(b) structural defects like buckling, fractures and deformed structures;

(c) detached and/or holed structure; and

(d) corrosion of welds.

15 With respect to **1.4.2-4, Part B of the Rules**, furthermore to **-13** above, the following items are to be confirmed during Intermediate or Special Survey meetings for oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks:

(1) schedule of the vessel;

(2) provision and arrangements for thickness measurements;

(3) extent of the thickness measurements;

(4) acceptance criteria;

(5) extent of close-up survey and thickness measurement considering the coating condition and suspect areas/areas of substantial corrosion;

(6) execution of thickness measurements;

(7) taking representative readings of thickness measurement in general and where uneven corrosion/pitting is found;

(8) mapping of areas of substantial corrosion; and

(9) communication between attending surveyor, the thickness measurement company operators and owner representative concerning findings in survey.

B3 ANNUAL SURVEYS

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

Paragraph B3.2.1 has been amended as follows.

B3.2.1 Examination of Plans and Documents

For oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks, the management conditions of plans and documents specified in **B1.4.2-6** are to be examined in addition to the plans and documents listed in **Table B3.1, Part B of the Rules**.

B3.2.2 General Examination

Sub-paragraph -4 has been added as follows.

4 With regard to item 21 of **Table B3.2, Part B of the Rules**, the general examinations for the means of embarkation and disembarkation installed on ships not less than 500 *gross tonnage* engaged on international voyages are to confirm that the items specified in **(1)** to **(5)** below are in good condition.

(1) The following items **(a)** to **(f)** of accommodation ladders:
  (a) steps;
  (b) platforms;
  (c) all support points such as pivots, rollers, etc;
  (d) all suspension points such as lugs, brackets, etc;
  (e) stanchions, rigid handrails, hand ropes and turntables; and
  (f) davit structure, wire and sheaves, etc.

(2) The following items **(a)** to **(d)** of gangways:
  (a) treads;
  (b) side stringers, cross-members, decking, deck plates, etc;
  (c) all support points such as wheel, roller, etc; and
  (d) stanchions, rigid handrails, hand ropes.

(3) The following items **(a)** to **(c)** of winches:
  (a) brake mechanism including condition of brake pads and band brake;
  (b) remote control system; and
  (c) power supply system (in cases where motor is used).

(4) All fittings and davits on the ship deck associated with accommodation ladders and gangways.

(5) The fittings or structures for the means of access to decks such as handholds in a gateway or bulwark ladder and stanchions.

B5 SPECIAL SURVEYS

B5.2 Special Surveys for Hull, Equipment, Fire extinction and Fittings

B5.2.3 Performance Test

Sub-paragraph -3 has been added as follows.

3 The performance test specified in **5.2.3-2(8), Part B of the Rules** is to be in accordance with the following:

(1) The accommodation ladder, gangway and winch are to be operationally tested with the specified maximum operational load.

(2) The load used for the test is to be the following:

(a) the design load;

(b) the maximum operational load, if this is less than the design load; and

(c) the load nominated by the shipowner or operator only in those cases where the design load or maximum operational load is not known.

(3) The tests are to be carried out with the load applied as uniformly as possible along the length of the accommodation ladder or gangway, at an angle of inclination corresponding to the maximum bending moment on the accommodation ladder or gangway.

(4) Following satisfactory completion of the applicable test without permanent deformation or damage to the tested item, the load used for that test is to be marked as the maximum operational load on the plate specified in **C23.8.1-2(6), Part C**.

B5.2.4 Internal Examinations of Spaces and Tanks

Sub-paragraph -1 has been amended as follows.

1 At Special Surveys for oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks, reference is to be made to the plans and documents specified in **B1.4.2-6**.

B5.2.6 Thickness Measurements

Sub-paragraph -1 has been amended as follows.

1 The thickness measurement record specified in **5.2.6-1(3), Part B of the Rules** is to give the position of each measuring point, the thickness measured as well as the corresponding original thickness, the allowable diminution, and extent of use of high tensile steels, if used. Furthermore, the record is to give the date when the measurement was carried out, the type of measuring equipment used, and names of the personnel and their qualifications with their signatures. In oil tankers and bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks, the record is to be made in the approved format. The surveyor verifies and countersigns the thickness measurement record.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 January 2010.

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 2-4

B1 GENERAL

B1.1 Surveys

B1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph (9) and (10) have been added as follows.

5 Occasional surveys specified in **1.1.3-3(5), Part B of the Rules** are as specified below:

(1) Fire-Extinguishing Mediums and Deep-fat cooking equipment
New installations of fire-extinguishing mediums and deep-fat cooking equipment on or after 1 July 2002 are to comply with the requirements of **10.4.1-3** or **10.6.3, Part R of the Rules**, as applicable. Deep-fat cooking equipment is to be confirmed at the time of the installation.
(Omitted)

(8) Safety Practice of Fixed Carbon Dioxide Fire-extinguishing Systems
For fixed carbon dioxide fire-extinguishing systems for the protection of machinery spaces and cargo pump-rooms installed on ships which had been at the beginning stage of construction before 1 October 1994, a survey is to be carried out to verify compliance with the requirements of **25.2.2-2(1)** and **(2), Part R of the Rules** by the date of the first scheduled dry-docking after 1 January 2010.

(9) Emergency Towing Procedures
For cargo ships not less than 500 *gross tonnage* engaged on international voyages which had been at the beginning stage of construction prior to 1 January 2010, a survey is to be carried out by 1 January 2012 to verify that the emergency towing procedures specified in **27.4, Part C** or **23.3, Part CS** are provided.

(10) In the case of ships not less than 500 *gross tonnage* engaged on international voyages which had been at the beginning stage of their construction before 1 January 2010 and have closed vehicle and Ro-Ro spaces equipped with fixed water pressure spraying systems, a survey is to be conducted to verify that the measures specified in **20.5.1-5, Part R of the Rules** have been carried out by the first survey after 1 January 2010.

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 January 2010.

Amendment 2-5

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 The plans required to be submitted for approval in **2.1.2, Part B of the Rules** are to indicate the 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 of the Rules**, renewal thicknesses are to be indicated in the relevant drawings.

(2) Midship Section
  (a) d_s and L, V, W and C_b corresponding to d_s, where the provisions in **Part C of the Rules** are applied and the scantling draught (d_s) is larger than d specified in **2.1.12, Part A of the Rules**
  (b) The kind of freeboard assigned by the requirements of **Part V of the Rules**
  (c) Draught in *metres* corresponding to the designed timber freeboard, where the timber load line is intended to be marked
  (d) The position of the freeboard deck in ships with multiple decks

(3) Construction Profile
  (a) The forward end of L_f specified in **A2.1.3** and the point $0.25L_f$ aft of it
  (b) For car decks of vehicle carriers, the route that the vehicles use frequently during loading and unloading (the deck area which is subject to the dynamic load in the vicinity of the ramp way and is on the route taken by the vehicles when moving between decks)
  (c) For ships fitted with movable car decks, plans of their support structures

(4) Shell Expansion
  Comparative table between the standard sheer specified in **Part V of the Rules** and actual sheer on the exposed deck, where the exposed freeboard or superstructure deck has a well formed by bulwarks and end bulkheads of superstructure

(5) Arrangements of Means of Embarkation and Disembarkation
  (a) Arrangements of equipment and related devices including lighting and lifebuoys
  (b) Overall arrangements of the means of embarkation and disembarkation including the situations related to the use of maximum and minimum angles of inclination
  (c) Detail plans of the connection between the means of embarkation and disembarkation and the deck

(~~5~~6) Arrangements of Scupper Pipes (from the plans stipulated in **13.1.2(1), Part D of the Rules**)
  The Summer Load Line determined by the requirements of **Part V of the Rules** and Lines 600*mm*, $0.01L_f$ and $0.02L_f$ above it and 450*mm* below the freeboard deck
  Instead of the Summer Load Line the maximum designed load line above it may be acceptable

B2.1.4 Presence of the Surveyor

Sub-paragraphs -4 and -5 have been renumbered to Sub-paragraphs -5 and -6 respectively, and Sub-paragraph -4 has been added as follows.

4 The performance tests for the means of embarkation and disembarkation required by **2.1.4-1(8), Part B** are to be in accordance with the following:

(1) Accommodation ladders are to be subject to static load tests of the specified maximum operational load.

(2) Winches are to be tested a minimum of two times hoisting and lowering the accommodation ladder in accordance with ISO 7364:1983 or standards where deemed appropriate by the Society.

(3) After testing, the conditions of winches and accommodation ladders are to be confirmed.

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 January 2010.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

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

Amendment 2-6

B12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNITS, WORK SHIPS, AND SPECIAL PURPOSE BARGES

B12.2.2 Submission of Plans and Documents

Sub-paragraph -9 has been added as follows.

1 A stability information booklet for the unit specified in **12.2.2-1(1)(j), Part B of the Rules** is to be prepared in accordance with **Annex B2.3.2**, "GUIDANCE FOR STABILITY INFORMATION FOR MASTER."

(Sub-paragraphs -2 to -8 are omitted.)

9 For the purpose of **12.2.2-3 Part B of the Rules**, at least the following plans and documents regarding work-related installations and drawings indicating the construction of the part of the hull where work-related installations are installed are to be submitted to the Society. In addition, in cases where deemed necessary by the Society, additional plans and documents may be requested depending on operation, etc. of such units.

(1) Fire fighting Vessels
  (a) Submission of plans and documents for approval
    i) Plans showing the arrangements of fire fighting equipment (the locations, types and numbers of fire fighting systems, hydrants, fire-fighter's outfits, etc.)
    ii) Plans showing the arrangements of sea water inlets
    iii) Details of the supporting structures for monitors for fire fighting
  (b) Submission of plans and documents for reference
    i) Remote control arrangements of fire monitors for fire fighting
    ii) Details of Water-spray systems (In cases where water-spray systems for fire fighting are installed)
    iii) Details of mobile foam generators and their capacity (In cases where mobile foam generators are provided)
    iv) Details of foam generator systems
    v) Design materials for positioning the units at a specific position during fire fighting operations
    vi) Calculation sheets of supporting structures for monitors for fire fighting
(2) Offshore supply Vessels
  (a) Submission of plans and documents for reference
    i) Cargo loading arrangements
    ii) Cargo securing plans
(3) Anchor handling Vessels
  (a) Submission of plans and documents for approval
    i) Plans showing the arrangements of anchor handling equipment (the locations, types, etc. of stern rollers, cranes, bollards, etc.)
    ii) Details of the supporting structures for anchor handling equipment
  (b) Submission of plans and documents for reference
    i) Details of anchor handling equipment
    ii) Calculation sheets of the supporting structures for anchor handling equipment
    iii) Cargo loading arrangements

iv) Cargo securing plans

(4) Vessels engaged in towing operations

(a) Submission of plans and documents for approval

i) Plans showing the arrangements of towing equipment

ii) Details of the supporting structures of towing equipment

(b) Submission of plans and documents for reference

i) Details of towing equipment

ii) Calculation sheets of the supporting structures for towing equipment

iii) Bollard pull testing procedures

(5) Vessels engaged in laying objects on the seabed

(a) Submission of plans and documents for approval

i) Plans showing the arrangements of laying equipment

ii) Details of the supporting structures of laying equipment

(b) Submission of plans and documents for reference

i) Details of laying equipment

ii) Calculation sheets of the supporting structures for laying equipment

Paragraph B12.2.3 has been amended as follows.

B12.2.3 Presence of ~~the~~ Surveyor

1 Common onshore or offshore installations used by units specified in **12.1.1-2, Part B of the Rules** are to be examined in the presence of the Surveyor.

(Sub-paragraphs -2 to -7 are omitted.)

8 For the performance tests of the work-related installations of work-ships related to **12.2.3(10)**, **Part B of the Rules**, the following tests are to be carried out. In cases where it is impractical to carry out such tests onboard ship, they may be replaced with examinations carried out at the place of manufacture in the presence of a Surveyor.

(1) Fire Fighting Vessels

(a) Confirmation that fire fighting equipment is installed according to approved plans showing the arrangements of such equipment

(b) Fire fighting equipment

i) Water monitor systems

Confirmation that the range of each monitor is more than that specified in **Table P9.4.4-1** in cases where all fixed water monitors are in simultaneous use

ii) Hoses and nozzles for fire fighting

Confirmation that water jet flows are more than 12*m*

iii) Mobile high expansion foam generators

Confirmation that mobile high expansion foam generators work well

iv) Foam monitor systems

Confirmation that the height of foam flow with all fixed foam monitors in simultaneous use at maximum foam generation is more than 15*m*

v) Water-spray systems

Confirmation that water-spray systems work well

(2) Anchor handling vessels

(a) Confirmation that anchor handling equipment is installed according to approved plans showing the arrangements of such equipment

(b) Confirmation that anchor handling equipment works well

(3) Vessels engaged in towing operations

(a) Confirmation that towing equipment is installed according to approved plans showing the arrangements of such equipment

(b) Confirmation that towing equipment works well

(4) Vessels engaged in laying objects on the seabed

(a) Confirmation that laying equipment is installed according to approved plans showing the arrangements of such equipment

(b) Confirmation that laying equipment works well

EFFECTIVE DATE AND APPLICATION (Amendment 2-6)

1. The effective date of the amendments is 1 April 2010.

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.

3. Notwithstanding the provision of preceding **2.**, the amendments to the Guidance may apply to ships for which the application is submitted to the Society before the effective date upon request by the owner.