– mechanical installation, machinery, arrangements, systems, including cargo system and electrical equipment of the ship ("**MACHINERY, SYSTEMS"** group).

The items included in each group of items are given in 4.5.6 and 4.5.7.

CAP is carried out by the Register at the Request of a shipowner on a reimbursement basis for oil tankers, chemical tankers, gas carriers and oil bulk carriers. CAP may be applied for the RS class ships in service as well as for transfer of the ship to RS class and for ACS class ships, except ACS – IACS members.

4.1.2 CAP results are used by insurance companies, cargo terminals, charterers and shipowners.

4.1.3 The objective of CAP is to determine actual condition of items listed in 4.1.1 and to assign the rating to the groups of ship's items in compliance with the applicable requirements of the Rules for the Classification and Construction of Sea-Going Ships and Rules for the Classification Surveys of Ships in Service.

4.1.4 The unified CAP rating scale described in 4.2 is used.

4.1.5 Within the CAP the Register does not assess ship's characteristics having direct effect on the commercial results of ship's operation, such as speed, fuel rate of main engine, auxiliary machinery, etc.

4.2 Condition rating scale

4.2.1 The Register assesses the actual condition of ship hull using the unified **CAP1** to **CAP4** rating scale (rating system).

CAP1 is the maximum rating corresponding to "very good" actual condition of ship (or ship's components and elements).

CAP2 corresponds to "good" actual condition of ship (or ship's components and elements).

CAP3 corresponds to "satisfactory" actual condition of ship (or ship's components and elements).

CAP4 corresponds to "poor" actual condition of ship (or ship's components and elements).

4.2.2 CAP rating system for the "**HULL"** group is based on the assumption that the components selected for assessment are sufficient for evaluation of the ship's hull as a whole. The CAP rating is assigned according to the following criteria:

– general condition of the structure (refer to Table 4.2.2-1), general condition of coatings (refer to Table 4.2.2-2), general condition of the anchoring arrangement (refer to Table 4.2.2-3), general condition of cathode protection (refer to Table 4.2.2-4) with respective CAP rating (refer to Table 4.2.2-5);

– technical condition based on the results of assessment of the ship's hull girder strength with respective CAP rating (refer to Table 4.2.2-6);

– technical condition based on the results of assessment of the hull structure actual wear with respective CAP rating (refer to Table 4.2.2-7);

– technical condition based on the results of assessment of the structure residual service life with respective CAP rating (refer to Table 4.2.2-8).

The total CAP rating for the "**HULL**" group is assigned as an average value of assessment by 4 criteria according to Tables 4.2.2-5 to 4.2.2-8. The total rating shall not exceed the rating given in Table 4.2.2-5. In case **CAP3** or **CAP4** rating is assigned by at least one of the criteria according to Tables 4.2.2-5 to 4.2.2-8, the total rating shall not exceed **CAP3** or **CAP4** respectively.

Table 4.2.2-1

Verbal description	Criteria for assessment of general condition of hull structures, superstructures, deckhouses, closures of openings in outer ship's hull based on results of visual examination
Good	Structures, their welded joints are not damaged or have sporadic defects. A small amount of defects such as smooth bulging, corrugation of plating and flooring, which are within the tolerances specified in the RS rules is allowed. Tightness and structural integrity of the examined items are intact.
Satisfactory	Structures, their welded joints have visible defects, which do not significantly affect the bearing capacity of the structure: residual deformations, pitting corrosion, which are within the tolerances specified in the RS rules. Tightness and structural integrity of the examined items are intact.
Unsatisfactory	Structures, their welded joints have defects, which slightly exceed or equal to the tolerances specified in the RS rules. Tightness and structural integrity of the examined items are intact. Repair is required.
Poor	Structures, their welded joints have defects, which considerably exceed the tolerances specified in the RS rules. Tightness and structural integrity of the examined items are damaged. Complete and urgent repair is required to restore serviceability.

Table 4.2.2-2

Verbal description	Criteria for assessment of general condition of coatings
Good	Coating condition with spot corrosion on the area of less than 3 % of the area under consideration without visible coating damage. Corrosion at edges of stiffeners or welded joints is less than 20 % of the areas under consideration.
Fair	Condition with coating damage or corrosion propagation on the area of less than 20 % of the area under consideration. The area of the solid corrosion layer propagation is less than 10 % of the area under consideration. Corrosion at edges of stiffeners or welded joints is less than 50 % of the areas under consideration.
Poor	Condition with coating damage or corrosion propagation area more than 20 % or with solid corrosion layer more than 10 % of the area under consideration or local failure concentrated at edges of stiffeners or welded joints more than 50 % of the areas under consideration.
Note. The guidelines on assessment of protective coating condition is given in Annex 52 "Guidelines on Survey and Assessment of Coating Condition of Ship's Spaces" to the Guidelines on Technical Supervision of Ships in Service.	

Table 4.2.2-3

Verbal description	Criteria for assessment of general condition of the anchoring arrangement
Good	Actual wear of anchor chain components is within the tolerance and equal to not more than 50 % of limit values.
Satisfactory	Actual wear of anchor chain components is within the tolerance and equal to more than 50 % of limit values.
Poor	Actual wear of anchor chain components exceeds the allowable limit values.
Note The guidelines on assessment of anchoring equipment condition are given in Annex 50 “Guidance on Technical Supervision of Anchoring Equipment in Service (with due Account for the Provisions of IACS Recommendation No. 79) to the Guidelines on Technical Supervision of Ships in Service.	

Table 4.2.2-4

Verbal description	Criteria for assessment of general condition of cathode protection
Superior	Anode consumption is from 0 to 25 %.
Good	Anode consumption is from 25 to 50 %.
Satisfactory	Anode consumption is from 50 to 65 %.
Poor	Anode consumption is from 75 to 100 %.

Table 4.2.2-5

CAP rating	Criteria for assigning CAP rating based on the results of technical condition and coating condition assessment
CAP1	General condition of the structure is assessed as "good". General condition of coatings, where applicable, is assessed as "good".
CAP2	General condition of the structure is assessed as "satisfactory". General condition of coatings, where applicable, is assessed as "satisfactory" or "good".
CAP3	General condition of the structure is assessed as "unsatisfactory". General condition of coatings, where applicable, is assessed as "poor" or "satisfactory".
CAP4	General condition of the structure is assessed as "poor". General condition of coatings, where applicable, is assessed as "poor".

Table 4.2.2-6

CAP rating	Criteria for assigning CAP rating based on the results of hull girder strength assessment
CAP1	Actual hull girder strength is not less than 98 % of the values required for a new ship.
CAP2	Actual hull girder strength is not less than 95 % of the values required for a new ship.
CAP3	Actual hull girder strength is not less than 90 % of the values required for a new ship.
CAP4	Actual hull girder strength is less than the values required to retain the ship's class.

Table 4.2.2-7

CAP rating	Criteria for assigning CAP rating based on the results of the hull structure actual wear assessment
CAP1	Minor wear (not more than 35 % of limit values) of hull members is allowed.
CAP2	Actual wear of hull members is within the tolerance and equal to not more than 75 % of limit values.
CAP3	Actual wear of hull members is within the tolerance but exceeds 75 % of limit values.
CAP4	Actual wear of separate hull members exceeds limit values to retain the ship's class.

Table 4.2.2-8

CAP rating	Criteria for assigning CAP rating based on the results of the structural residual service life assessment
CAP1	Structural residual service life is not less than 25 years.
CAP2	Structural residual service life is not less than 15 years.
CAP3	Structural residual service life is not less than 7 years.
CAP4	Structural residual service life is less than 7 years.

4.2.3 Four-grade rating scale by four criteria is used as a rating system for the "**MACHINERY, SYSTEMS**" group (refer to Table 4.2.3-1):

– assessment of general technical condition based on results of visual examination (refer to Table 4.2.3-2);

– assessment of general technical condition based on results of functional and operational tests (refer to Table 4.2.3-3);

– assessment of general technical condition based on results of diagnostic parameter assessment (refer to Table 4.2.3-4);

– assessment of maintenance and spare parts (refer to Table 4.2.3-5).

Table 4.2.3-1

CAP rating	Criteria for assigning CAP rating for " **MACHINERY, SYSTEMS**" group
CAP1	Genera; technical condition based on results of visual examination is assessed as "good" or "satisfactory". General technical condition based on results of functional and operational tests is assessed as "good". General technical condition based on results of diagnostic parameter assessment is assessed as "good". Maintenance and spare parts are assessed as "good".
CAP2	General technical condition based on results of visual examination is assessed as "good" or "satisfactory". General technical condition based on results of functional and operational tests is assessed as "satisfactory". General technical condition based on results of diagnostic parameter assessment is assessed as "good". Maintenance and spare parts are assessed as "good" or "satisfactory".
CAP3	General technical condition based on results of visual examination is assessed as "unsatisfactory". General technical condition based on results of functional and operational tests is assessed as "unsatisfactory". General technical condition based on results of diagnostic parameter assessment is assessed as "good". Maintenance and spare parts are assessed as "satisfactory".
CAP4	General technical condition based on results of visual examination is assessed as "poor". General technical condition based on results of functional and operational tests is assessed as "poor". General technical condition based on results of diagnostic parameter assessment is assessed as "poor". Maintenance and spare parts are assessed as "poor".

Table 4.2.3-2

Verbal description	Criteria for assessment of general technical condition based on results of visual examination
Good	No visible defects are detected. Condition of coating is "good". No leakage traces are detected.
Satisfactory	Minor damages, which do not affect safe operation, are detected. No leakage traces are detected.
Unsatisfactory	Damages, which are within limit values to retain the ship's class and which do not affect safe operation but require maintenance and repair, are detected. No leakage traces are detected.
Poor	Damages, which may affect safe operation are detected. Leakage traces are detected.
N/A (Not applicable)	Type of the system under consideration or its component due to structural features or functionality does not allow to assign a respective verbal description.

Table 4.2.3-3

Verbal description	Criteria for assessment of general technical condition based on results of functional and operational tests
Good	Items and systems are surveyed, functionally and operationally tested. Performance corresponds to the manufacturer's requirements and requirements to retain the ship's class. Equipment control and safety devices are completely serviceable.
Satisfactory	Items and systems are surveyed, functionally and operationally tested. Minor faults and deviations from the required performance which do not affect safe operation of the equipment and do not require maintenance or repair are detected. Equipment control and safety devices are completely serviceable.
Unsatisfactory	Items and systems are surveyed, functionally and operationally tested. Performance insignificantly exceeds or are within the limits specified in the RS rules. Faults, which do not affect safe operation of the equipment but require maintenance and repair, are detected. Equipment control and safety devices are completely serviceable.
Poor	Faults, which may affect safe operation of the equipment, are detected. Performance is considerably lower than the required values to retain the ship's class. Faults in the equipment control and safety devices are detected. Immediate actions are required to restore serviceability.
N/A (Not applicable)	Type of the system under consideration or its component due to structural features or functionality does not allow to assign a respective verbal description.

Table 4.2.3-4

Verbal description	Criteria for assessment of general technical condition based on results of diagnostic parameter assessment (vibration, oil analysis, bearing clearances, etc.)
Good	Diagnostic parameters of equipment are within the tolerance. Oil sample results are within the tolerance. Elevated equipment vibration is not detected.
Poor	Diagnostic parameters do not correspond to the tolerance. Oil sample results exceed the tolerance. Elevated equipment vibration is detected.
N/A (Not applicable)	Type of the system under consideration or its component due to structural features or functionality does not allow to assign a respective verbal description.

Table 4.2.3-5

Verbal description	Criteria for assessment of maintenance and spare parts assessing
Good	Regular maintenance of equipment, availability of schedules and application of diagnostic equipment are documented. Quantity and nomenclature of spare parts correspond to the recommendations of the manufacturer and the RS normative documents. The information on storage location of spare parts, records on availability, consumption and order system of spare parts is available.
Satisfactory	The minimum scope of maintenance performed according to the recommendations of the manufacturer and the RS normative documents is documented. Deviations from the recommended quantity and nomenclature of spare parts are detected. The information on storage location of spare parts, records on availability, consumption and order system of spare parts is available. Minor deficiencies, which do not affect safe operation of the equipment, are allowed.
Poor	Significant faults in maintenance of the equipment which may affect safe operation of the equipment are detected. The information on storage location of spare parts, records on availability, consumption and order system of spare parts is not available.
N/A (Not applicable)	Type of the system under consideration or its component due to structural features or functionality does not allow to assign a respective verbal description.

4.2.4 In case the elements having condition below the minimum requirements specified in the RS rules for the RS-classed ships are detected, the Register reserves the right to require elimination of detected defects (refer to Annex 17 to the Guidelines on Technical Supervision of Ships in Service). For ACS-classed ships subject to CAP, the Register shall notify the shipowner in writing on detected elements having condition below the minimum requirements and necessity to inform the corresponding classification society about this matter.

4.3 CAP operations execution

4.3.1 AP procedure of the Register includes the following main stages:

– review of documents;

– preparation to survey and performance of survey;

– hull strength analysis for compliance with the CAP criteria;

– preparation and issue of the Condition Assessment Program Report;

– preparation and issue of the CAP Certificate as per form 3.1.12 (for CAP1 and CAP2) or a Letter of Conclusion (for CAP3 and CAP4).

4.4 Review of documents

4.4.1 The list of information submitted to the shipowner is given in Annex A.

4.4.2 According to the Request of the shipowner during preparation to CAP execution, the Register reviews the following documents included in the Ship's File and/or received from the shipowner:

– Classification Certificate and others, if any;

– current surveys status;

– RS reports, checklists (or, if applicable, ACS – IACS member), at least the last special and subsequent surveys of the ship (to specify the status and presence of any recurring failures, as well as repair and survey history);

– reports on hull condition, reports on thickness measurements, repair reports, history of ship's hull damages, transported cargoes, areas of ship operation and other documents on actual condition of ship's hull for the operation period preceding the CAP procedure execution;

– planned maintenance system (PMS) documentation, if any, for machinery and cargo system (maintenance schedules; documents confirming fulfilment of the PMS operations and schedules); documents demonstrating technical condition before and after maintenance; records on accidents, failures and emergencies, replacement and repair of the CAP items;

– records on technical condition and/or worksheets for checking technical condition of machinery, or special forms of records on the results of technical condition monitoring during the maintenance. The documents submitted shall contain the results of surveys and measurements carried out during the maintenance, as well as the limit values of technical condition parameters (sizes, clearances, condition of surfaces, etc.) determined by the manufacturer or other recognized organization. Causes of failures, accidents, replacements and repairs shall be specified.

4.4.3 Upon request of the Register Head Office (RHO), the shipowner and/or the RS Branch Office for in-service supervision shall provide additional information and ship documents required for the CAP execution.

4.4.4 During review the special attention shall be given to hull defects appeared within the first 10 years of ship's operation, recurring defects and information on accidents. Causes of defects shall be identified and eliminated.

4.4.5 Based on the reviewed documentation, the Register shall make a decision on possibility to execute the CAP procedure for a ship, preliminary conclusions on the surveys carried out, requirements to be met, ship's condition, operating conditions of the shipboard machinery, etc., determine the items subject to closer attention, specify the scope of surveys, measurements, tests and checks.

4.4.6 If during review of the documents some doubts on possibility of issue of the CAP Certificate appear, RHO may offer to perform preliminary assessment, including strength analysis based on the existing fault detection reports, repair lists and reports on survey. Upon review of the preliminary assessment results, the shipowner shall make a decision on expediency of the CAP execution and inform the Register.

4.5 Survey within the CAP framework

4.5.1 The scope of survey within the CAP framework is determined in each particular case depending on the groups of items (refer to 4.1.1), subject to assessment and specified by the shipowner in the Request as well as the the requirements of the Rules for the Classification Surveys of Ships in Service with reference to age and class of the ship as well as type of survey and shall include, at least, the following:

.1 for Request for assessment of "**HULL**" group items:

– annual survey of the hull, survey of anchoring arrangement and steering gear, rudder blade, propellers and active means of ship's steering in the scope of annual survey for the ships up to 5 years of age. For the RS-classed ships without class or from society - non-IACS member, it is required to perform random thickness measurements of the elements of the hull, superstructure, deckhouses and closures of openings in outer envelope of the ship, as deemed necessary by the RS surveyor;

– for the ships 5 years of age and above, special survey of the hull, anchoring arrangement and steering gear, rudder blade, propellers and active means of ship's steering in the scope of annual survey.

When aligning the CAP surveys with special or intermediate survey, the scope of the CAP survey shall correspond to special or intermediate hull survey respectively;

.2 for Request for assessment of the "**MACHINERY, SYSTEMS**" group items:

– annual survey of machinery, systems, including cargo system, arrangements and electrical equipment of the ship. When aligning the CAP surveys with special or intermediate survey, the scope of the CAP survey shall correspond to the scope of special or intermediate survey respectively.

4.5.2 When assigning the scope of the CAP survey for the "**HULL**" group, the following may be partially considered:

– results of the previous special/intermediate classification survey performed by RS or ACS – IACS member not earlier than 12 months before the shipowner's application;

– results of thickness measurements carried out under technical supervision of RS or ACS – IACS member not earler than 12 months before the shipowner's application. In case the results of measurements carried out under technical supervision of ACS – IACS member are taken into consideration, check measurements of thickness under the RS surveyor supervision shall be carried out.

4.5.3 The possibility of aligning the CAP survey with periodical classification surveys shall be decided by the Register in each particular case on the basis of the shipowner's Request and review of documents.

4.5.4 When aligning the CAP surveys with periodical classification survey, the CAP report documents shall be prepared separately. Defects detected during the CAP survey shall be documented in the RS records in a proper manner.

4.5.5 The CAP survey results to be included in the CAP Report may be obtained from several surveys within a period not more than 6 months.

4.5.6 The CAP survey results for the "**HULL**" group shall be prepared by the RS surveyor carrying out a survey in the form of a Checklist on ship's CAP **HULL** survey. A respective checklist shall be prepared by the RS surveyor(s) based on the survey results for each item/space including, at least, the following:

bottom shell plating along the ship's length;

portside and starboard shell plating along the ship's length;

deck and platform plating;

sacrificial anode protection of shell plating, if any;

thruster, if any;

anchoring arrangement;

steering gear and rudder blade;

propeller or active means of ship's steering (as applicable);

superstructure/deckhouse walls;

each cargo hold/tank on board the ship;

each ballast tank on board the ship;

each void space;

closures of openings in outer envelope.

Photos of each surveyed space/item proving technical condition of the item at the moment of survey shall be attached to the records. Photos made by the RS surveyor shall be clearly indicated (refer to 3.1.2.5 Part I "General" of the Guidelines on Technical Supervision of Ships in Service"). This information shall correspond to the information on the item shown in the photo. Generally, 4 to 8 photos shall be made for each surveyed item/space.

Where applicable, reports and results of survey tests and measurements shall be attached to the filled-in forms of the documents.

4.5.7 The CAP survey results for the "**MACHINERY, SYSTEMS**" group are prepared by the RS surveyor carrying out a survey in the form of a Checklist on Ship's CAP **MACHINERY, SYSTEMS** survey. A respective checklist shall be prepared by the RS surveyor(s) based on the survey results for each item/system component including, at least, the following:

– each main engine (with auxiliary machinery, arrangements and systems as well as engine room as a whole);

– each auxiliary engine (with auxiliary machinery and arrangements);

– each main and emergency power source (with auxiliary machinery and switchgear assemblies);

– all liquid cargo system components of oil tankers (including associated pumps, pipelines, valves, instrumentation, machinery and arrangements, safety systems as well as associated spaces on the ship as a whole);

– all ballast system components (including associated pumps, pipelines, valves, instrumentation, machinery and arrangements);

– anchoring arrangement, steering gear, thrusters and mooring gear (with auxiliary machinery and arrangements);

– propeller, intermediate and thrust shafts (as applicable).

Photos of each surveyed space/item proving technical condition of the item at the moment of survey shall be attached to the records. Photos made by the RS surveyor shall be clearly indicated (refer to 3.1.2.5 Part I "General" of the Guidelines on Technical Supervision of Ships in Service"). This information shall correspond to the information on the item shown in the photo. Generally, 4 to 8 photos shall be made for each surveyed item/space.

Where applicable, reports and results of survey tests and measurements shall be attached to the filled-in forms of the documents.

4.6 Hull strength analysis for compliance with CAP criteria

4.6.1 To assign a CAP rating to the ship's hull for the **"HULL"** group, additionally to the rating received as a result of ship's hull CAP survey, the hull strength analysis for compliance with the CAP criteria shall be made.

4.6.2 Strength analysis shall be fulfilled to assign the CAP rating for ship's hull and include the following:

– analysis of ship's hull actual condition with the description of actual wear and other defects detected both during survey and upon results of studying the data of the previous repairs of hull, classification society reports, etc.;

– check of the ship's hull longitudinal strength in, at least, three transverse sections within the amidships (in the area of cargo holds/tanks, one of which shall be amidships and others – forward and aftward), including comparison of the actual hull section modulus with tolerable wear specified in the RS rules according to the RS requirements for **CAP1, CAP2** and **CAP3** ratings (refer to 4.2.2). Reduction of longitudinal structural members losing stability under bending forces when calculating strength is not allowed;

– check of the ship's hull geometric characteristics, including comparison of actual thickness of plates, beam walls and modulus of resistance of hull wearable members with the RS requirements for **CAP1, CAP2 and CAP3** ratings (refer to 4.2.2);

– check of fatigue strength of hull structures, including determination of residual service life of ship and comparison with the RS requirements for **CAP1**, **CAP2** and **CAP3** ratings (refer to 4.2.2 and 4.6.3);

– check of geometric characteristics of ship's hull with wear for absence of **CAP4** rating elements (if any, the overall CAP rating becomes **CAP4**);

– graphical representation of hull structure wear curves and CAP rating evaluation for each group of webs. CAP rating is determined with 10 % coverage (90% cumulative level) for all taken measurements for each group of webs (at least the following groups of webs shall be considered: plates and beams of side shell plating; plates and beams of strength deck plating; plates and beams of bottom shell plating with bilges; plates and beams of tank top plating; double side plates and beams/longitudinal bulkheads; longitudinal coamings).

4.6.3 Check of the ship's hull fatigue strength, including determination of residual service life is mandatory for ships with deadweight of 20 000 t and above and 20 years of age and above.

Calculation of fatigue strength and determination of residual service life are carried out for the following structures:

– intersections of the upper deck and bottom longitudinals with transverse bulkhead in, at least, three transverse sections along the ship's hull length in the area of cargo holds;

– intersections of the upper deck and bottom longitudinals with deck and bottom transverses in, at least, three transverse sections along the ship's hull length in the area of cargo holds;

– connections of the lower double side sloping plate and tank top plating in, at least, three transverse sections along the ship's hull length located in the middle of the cargo hold length;

– for all the repaired structures in case the repair was caused by cracks or other damages of fatigue nature irrespective of the structure location area.

For the ships with deadweight of less than 20 000 t and/or less than 20 years of age, RS may require fatigue endurance calculations based on results of the ship's hull survey and review of available documentation on the performed ship's hull repair (in case of fatigue cracks, in case of repairing fatigue cracks regularly appearing while in service).

Fatigue strength calculation procedure shall be agreed with the Register and meet the following minimum requirements:

– linear accumulated damage hypothesis shall be used; general requirements to the calculation procedure are given in IACS Recommendation No. 56, it is allowed to use main provisions of the procedure specified in the Collection of Regulating Documents, Book Eleven;

– design loads are determined using beam theory or finite-element method and one of the methods to determine loads acting on the ship's hull (simplified calculation procedure according to the RS rules or direct calculation using spectral method);

– calculation shall be carried out based on actual technical condition of the hull structures.

4.7 CAP Report

4.7.1 The CAP Report for the "**HULL**" group shall contain, at least, the following main sections:

– general information on the ship, including status of classification and statutory surveys of the ship;

– description of the system used to assign ratings and verbal descriptions;

– checklist on Ship's CAP **HULL** Survey, photos confirming technical condition;

– calculation of hull strength for compliance with the CAP criteria to assess longitudinal and local strength as well as fatigue strength for the "**HULL**" group;

– information on the performed repair of the hull structures prepared according to Annex B;

– calculation of overall CAP rating ("**HULL**" group);

– conclusion.

4.7.2 The CAP Report for the "**MACHINERY, SYSTEMS**" group shall contain, at least, the following main sections:

– general information on the ship, including status of classification and statutory surveys of the ship;

– Checklist on Ship's CAP **MACHINERY, SYSTEMS** Survey, photos confirming technical condition;

– information on the performed repair of the machinery and systems prepared according to Annex B;

– calculation of CAP rating for ship's machinery and cargo systems;

– calculation of overall CAP rating ("**MACHINERY, SYSTEMS**" group);

– conclusion.

4.7.3 When performing CAP for two groups ("**HULL**" and "**MACHINERY, SYSTEMS**" groups), it is allowed to prepare one report containing information provided in 4.7.1 and 4.7.2.

4.7.4 When performing CAP for two groups ("**HULL**" and "**MACHINERY, SYSTEMS**" groups) in the CAP Certificate (form 3.1.12), rating score shall be specified for each group (for example, **CAP1 – HULL** and **CAP2 – MACHINERY, SYSTEMS**).

4.7.5 The CAP Certificate (form 3.1.12) shall not be issued in case of assigning **CAP3** and **CAP4** ratings to the ship. The letter of conclusion with the CAP Report containing CAP rating justification shall be sent to the shipowner and the RS Branch Office for in-service supervision.

4.8 Arranging work on CAP execution

4.8.1 When arranging the RS work on CAP execution the instructions in Table 4.8.1 shall be followed.

Table 4.8.1

Action	Responsible division	Time frame
Review of the shipowner's Request	Division 310	Within 2 working days upon receipt of the Request.
Review of documents. Making a decision on possibility of CAP execution in principle and sending information to Division 340 to arrange ship's survey	Division 310	Within 10 working days upon receipt of the complete set of documents (Annex A).
Arrangement of ship's survey. Sending instruction to the RS Branch Office considering the place and date of survey agreed with the shipowner.	Division 340	Within 5 working days after making a decision on CAP execution in principle by Division 310.
Ship's survey.	RS Branch Office (on behalf of Division 340)	Determined by intermediate results of the survey.

Preparation of survey checklists. Sending records on survey (checklists, photos, test results) to Division 340.	RS Branch Office (on behalf of Division 340)	Within 5 working days after survey completion.
Control check of the records on survey. Sending records on survey to Division 310.	Division 340	Within 5 working days after survey completion.
Review of hull strength calculation for compliance with CAP criteria.	Division 310	Within 15 working days upon receipt of the calculation.
Assigning the total CAP rating. Preparing a final CAP Report. Issuing a CAP Certificate (form 3.1.12). Sending documents to the shipowner and Ship's File.	Division 310	Within 10 working days upon recept of the survey report and agreement of strength calculations.

4.8.2 Hull strength calculations for compliance with the CAP criteria may be performed by Division 310 or by a recognized organization as agreed with the shipowner. Calculation deadlines shall be agreed with the shipowner.

4.8.3 During the CAP survey, the RS surveyor shall follow the requirements of the Rules for the Classification Surveys of Ships in Service, Guidelines on Technical Supervision of Ships in Service and other RS normative documents used during survey of ships in service. For safe CAP survey, ND No. 2-170101-001 – Occupational Safety Instructions for RS Surveyors Conducting Survey of Ships and Items of RS Technical Supervision shall be used.

4.8.4 For CAP survey the most experienced RS surveyors with open areas of activities for at least special surveys with specialization in hull and annual surveys with mechanical and electrical specializations shall be assigned. The shipowner shall provide safe survey of the ship to be carried out by the Register. To provide safe CAP survey of the ship, the shipowner shall meet the applicable requirements of the Rules for the Classification Surveys of Ships in Service (at least Section 4 of Part I "General", Section 1 of Part III "Additional Surveys of Ships Depending on Their Purpose and Hull Material").

Annex A. List of Information Submitted to the Ship Owner

1. Group of items to assess actual technical condition of the ship (HULL/MACHINERY, SYSTEMS).
2. Name, registry number, IMO number, port of registry, flag, type, date of build, gross tonnage, class notation. Overall length, width, freeboard, summer draught, propulsion type.
3. Type of main machinery, total power.
4. Type and material of propeller shaft, propeller shaft liners, lubrication system of sterntube bearings, type of shaft to propeller connection.
5. Information on introduction of ship into propeller shaft/shafting condition monitoring (PCM/SCM) system, date of bringing the ship to PCM/SCM system (if any).
6. Information on planned date and place of ship submission (if any), details of agent in ship submission port.
7. General arrangement plan of the ship.
8. Depending on the selected group of CAP items: drawings of hull, mechanical and electrical installations of the ship, diagrams of ship systems;
9. List of ship machinery, arrangements, systems, including cargo system.
10. Copy of Classification Certificate and other certificates, if any.
11. If applicable: reports, checklists, ACS – IACS member reports on condition of the hull, as minimum, last special and subsequent surveys of the ship.
12. Thickness measurement reports, repair reports prepared according to Annex B and other documents concerning actual technical condition of the ship hull for the operation period preceding the CAP execution.
13. Ship' hull damage history for the entire service period of the ship.
14. Information on transported cargoes and operation areas for the last 3 years of ship service.
15. Planned maintenance system (PMS) documentation, if any, for ship's machinery and cargo system (maintenance schedules; documents confirming fulfillment of PMS operations and schedules); documents demonstrating technical condition before and after maintenance; documents with records on accidents, failures and emergencies, replacement and repair of CAP items.
16. Records of technical condition and/or worksheets for checking technical condition of machinery, or specially developed forms of records for the results of technical condition monitoring during maintenance. The documents submitted shall contain the results of surveys and measurements carried out during maintenance, as well as limit values of technical condition parameters (sizes, clearances, condition of surfaces, etc.) determined by the manufacturer or other recognized organization. Causes of failures, emergencies, replacements and repairs shall be specified.
17. Information on cathode protection installation, instruction on renewal of anodes fitted on the ship's outer hull afloat.
18. Specification of cathode protection and its installation diagram.
19. Copy of document confirming introduction of ship into PCM/SCM system.
20. Copy of document confirming introduction of ship into PMS system.

Annex B. Format of Submitting Information on Performed Repair for Final CAP Report

Table 1

Элемент корпуса Hull member	Выявленный дефект Defect detected	Выполненный ремонт (замена, подкрепление и т.п.). Ссылка на акт РС Repair performed (replacement, reinforcement, etc.). Reference to RS report	Дата ремонта Date of repair

Table 2

Элемент механизма/устройства/системы Machinery/equipment/system element	Выявленный дефект Defect detected	Выполненный ремонт (замена, подкрепление и т.п.). Ссылка на акт РС Repair performed (replacement, reinforcement, etc.). Reference to RS report	Дата ремонта Date of repair