

Dolski Rejestr Statków

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF MOBILE OFFSHORE DRILLING UNITS

PART I CLASSIFICATION REGULATIONS

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RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF MOBILE OFFSHORE DRILLING UNITS

prepared and edited by Polski Rejestr Statków S.A., hereinafter referred to as PRS, consist of the following Parts:

- Part I – Classification Regulations
- Part VIII – Electrical Equipment and Automation of the Rules for the Classification and Construction of Sea-going Ships,

Part I – Classification Regulations – January 2016 was approved by the PRS Board on 22 December 2015 and enters into force on 1 January 2016.

The present Part replaces *Part I – Classification Regulations – 2006*.

From the entry into force, the requirements of *Part I – Classification Regulations* apply to:

- units under construction – within the full scope,
- existing units – within the scope regarding surveys.

The requirements of *Part I – Classification Regulations* are extended by the following Publications:

Publication No. 2/P – Alternative Survey Arrangements for Machinery,

Publication No. 49/P – Requirements Concerning Mobile Offshore Drilling Units,

Publication No. 51/P – Procedural Requirements for Service Suppliers,

Publication No. 52/P – Underwater Inspection of Mobile Offshore Drilling Units in Lieu of Drydocking Survey,

Publication No 54/P – Alternative Hull Survey Arrangements,

Publication No 97/P – Transfer of Class and Adding, Maintaining or Withdrawing Double or Dual Class

Publication No 99/P – Guidelines for the Survey of Offshore Mooring Chain Cable in Use.

Part I – Classification Regulations is supplemented by following Publications “I”:

Publication No. 18/I – Guidelines for Non-Destructive Tests of the Underwater Part of Mobile Offshore Drilling Units,

Publication No. 28/I – Requirements for Safe Entry to Confined Spaces.

CONTENTS

	page
1 General	5
1.1 Scope of Application	5
1.2 Definitions	5
2 Scope of Survey	10
3 Class of a Mobile Offshore Drilling Unit	11
3.1 General	11
3.2 Main Symbol of Class and Symbol of Machinery.....	12
4 Class Assignment	14
4.1 General	14
4.2 Classification Documentation and Workshop Documentation of a Drilling Unit Built under PRS Survey.....	14
4.3 Certificates and Classification Documentation of Drilling Unit with Class of other recognized Classification Society	17
4.4 Certificates and Classification Documentation of a Drilling Unit which has Not been Classed Before by other Recognized Classification Society.....	18
4.5 Operating Booklet.....	18
4.6 Initial Survey	19
5 Maintenance of Class – Intervals Between Surveys And Survey Scope	19
5.1 General	19
5.2 Self-Elevating and Column-Stabilized Units.....	23
5.3 Drilling Ships and Drilling Barges	31
5.4 Continuous Surveys and other Alternative Survey Systems	32
5.5 Audits.....	33
6 Suspension of Class	33
6.1 Automatic Suspension of Class	33
6.2 Class Suspension due to Owner’s Financial Overdues.....	34
6.3 Duration of Class Suspension.....	34
6.4 Class Reinstatement.....	34
6.5 Notification to Owners and Flag States	34
7 Withdrawal of Class	34
8 Lay-up and Recommissioning of Drilling Unit	34
9 Preparation for Survey	35
9.1 Conditions for Survey.....	35
9.2 Access to Structures.....	35
9.3 Equipment for Survey.....	35
9.4 Survey Offshore or at Anchorage.....	36
9.5 Procedures	36
Apenndix	37

1 GENERAL

1.1 Scope of Application

1.1.1 *Rules for the Classification and Construction of Mobile Offshore Drilling Units*, hereinafter referred to as the *Rules*, apply to:

- .1 self-elevating drilling units;
- .2 column-stabilized drilling units;
- .3 drilling ships;
- .4 drilling barges.

1.1.2 The present Rules apply to drilling units, as well as (within applicable scope) to other units that do not fall into this category but which have configuration similar to drilling units and are intended for similar operations, e.g. exploitation of minerals.

1.1.3 Ships such as geophysical vessels, supply ships, tugs, etc., which are not offshore drilling units, are classed according to the relevant PRS *Rules*.

1.1.4 The present *Rules* apply to both drilling units under construction and to existing units.

1.1.5 The present *Rules* specify the requirements upon compliance with which PRS may assign a class to a mobile offshore drilling unit.

1.2 Definitions

1.2.1 General Definitions

Accommodation spaces – public spaces, corridors, lavatories, crew cabins, offices, hospitals, cinemas, game and hobby rooms, pantries containing no cooking appliances and other similar spaces.

Administration – the Government of the State whose flag the drilling unit is entitled to fly or an organization authorized to act on its behalf.

Alteration of the unit – activities aimed at the change of the drilling unit's scantlings or/and the unit's purpose.

Ballast Tank – A Ballast Tank is a tank which is used primarily for salt water ballast.

Breadth of drilling unit (B):

- for units, referred to in 1.1.1.1 and 1.1.1.2 – the length between the extremities of the unit orthogonal projection perpendicular to its centreline, measured along the line perpendicular to the centreline;
- for units, referred to 1.1.1.3 and 1.1.1.4 – the greatest breadth of the unit measured between the outer edges of frames.

Classification cycle – a cyclical period starting from the date of completion of the Initial Survey for Assignment of Class, carried out after the unit's construction completion or from the date of Class Renewal Survey completion, equal to class validity period (in general 5 years) and covering all due Periodical Surveys.

Column-stabilized unit – a unit dependent on the buoyancy of widely spaced columns for floatation and stability for all modes of operation or in the raising or lowering of the unit, as may be applicable. The columns are connected at their top to an upper structure, which supports the drilling equipment. Drilling operations may be carried out in the floating condition – in which condition the unit is described as semisubmersible, or when the unit is supported by the sea bed – in which condition the unit is described as submersible. A semisubmersible drilling unit may be designed to operate both floating and supported by the sea bed, provided each type of operation has been found to be satisfactory. During operations, column stabilized unit is to be anchored, irrespective of whether it is floating or is supported by the sea bed.

Corrosion Prevention System – a Corrosion Prevention System is normally considered a full hard protective coating. Hard Protective Coating is usually to be epoxy coating or equivalent. Other coating systems, which are neither soft nor semi-hard coatings, may be considered acceptable as alternatives provided that they are applied and maintained in compliance with the manufacturer’s specifications.

Critical Structural Area – Critical Structural Areas are locations which have been identified from calculations to require monitoring or from the service history of the subject unit or from similar units or sister units, if applicable, to be sensitive to cracking, buckling or corrosion which would impair the structural integrity of the Unit.

Date of contract for construction – unless specified otherwise:

- .1 the date of contract for construction of a drilling unit is the date on which the contract to build the unit is signed between the prospective Owner and the builder. This date is normally to be declared to PRS by the party applying for the assignment of class to a new building;
- .2 the date of contract for construction of a series of sister drilling units, including specified option units for which the option is included in the contract, is the date on which the contract to build the series is signed between the prospective Owner and the builder. The optional units will be considered part of the same series of sister units if the option is exercised not later than 1 year after the contract to build the series was signed;
- .3 if a contract for construction is later amended to include additional units or additional options, the date of contract for construction of such units is the date on which the amendment to the contract is signed between the prospective Owner and the builder. The amendment to the contract shall be considered as a new contract to which the definitions given in .1 and .2 apply.

Depth of the drilling unit (*H*) – the vertical distance measured amidships from the base plane to the top of the uppermost continuous deck beam at side.

Diving system – the device and equipment necessary for the safe conduct of diving operations from a drilling unit.

Downflooding – flooding of the interior of any part of the buoyant structure of a drilling unit through openings which cannot be closed watertight or weathertight **in any weather conditions**, as appropriate, in order to meet the intact or damage stability criteria.

Drilling barge – a sea-going non-self-propelled barge of unlimited gross tonnage, with single or multiple displacement hull construction, intended for drilling operations for the exploration or exploitation of subsea resources in the floating condition, anchored to the sea bottom.

Drilling fluid – liquid or gas, indispensable for the unit’s drilling operations, **used to lubricate the drilling bit and convey drill cuttings to the surface**.

Drilling operations (operation process) – drilling activities, exploitation of subsea resources or other activities directly associated with the unit operating condition.

Drilling ship – a self-propelled sea-going ship of unlimited gross tonnage, with single or multiple displacement hull construction, intended for drilling operations in the floating condition anchored to the sea bottom and /or held in position by dynamic positioning.

Drilling unit – a shortened term used for a mobile offshore drilling unit.

Enclosed space – a space delineated by floors, bulkheads and/or decks, which may have doors and/or windows.

Exceptional circumstances – unavailability of dry docking facilities; unavailability of repair facilities; unavailability of essential materials, equipment or spare parts; delays incurred by action taken to avoid severe weather conditions.

Examination:

- **External examination** – a visual inspection of structure, machinery or equipment, without dismantling, to provide a general assessment of their condition and to determine, where necessary, the scope of an additional close-up examination.
- **Internal examination** – a visual examination of structure, machinery or equipment in dismantled condition (partially or wholly) or a visual examination of an arrangement (boilers, pressure vessels) from the inside, aimed at the assessment of their condition and determination, where necessary, the scope of an additional close-up examination.
- **Close-up examination** – a survey where the details of structure, machinery or equipment are subject to close visual inspection by the Surveyor, i.e. normally within the Surveyor's hand reach and possible hammer, magnifying glass, etc. testing.

Geophysical vessel – a ship adapted for geophysical operations (the exploration of the subsea resources).

Hazardous area – an area in which an explosive gas/air mixture arising from the drilling operations may occur.

Detailed definitions of hazardous areas are given in 1.2.2.

Length of drilling unit (L):

- for units listed in 1.1.1.1 and 1.1.1.2 – the length between the extremities of the unit orthogonal projection on its centreline measured along the line parallel to the moulded base plane;
- for units listed in 1.1.1.3 and 1.1.1.4 – 96% of the total length on a waterline at 85 % of the moulded depth, measured from the base plane, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel, the waterline on which this length is measured shall be parallel to the design waterline.

Lightweight – the weight of the complete unit with all its permanently installed machinery, equipment and outfit, including permanent ballast, required spare parts normally retained on board and liquids in machinery and piping to their normal working levels, but without liquids in storage or reserve supply tanks, items of consumable or variable loads, stores or crews and their effects.

Mobile offshore drilling unit – defined in the present *Rules* as MODU, drilling unit or unit – a floating structure, ship or barge capable of engaging in drilling operation for the exploration and/or exploitation of resources beneath the sea bed, in the floating condition or supported on the sea bed, designed for unassisted passage or with the use of tug.

Moulded base plane – a horizontal line extending through the upper surface of the bottom plating.

Moulded draught (T) – the vertical distance measured from the moulded base plane to the assigned load waterline. Certain components of a drilling unit's structure, machinery or equipment may extend below the moulded base plane.

Mode of operation – a condition or manner in which a drilling unit may operate or function while on location or in transit (may be afloat or supported on the sea bed, anchored or not), having regard to environmental conditions. For the purpose of the present *Rules*, the following modes of operation have been distinguished:

operating condition – a condition wherein a drilling unit is on location to perform drilling or other similar operations, and combined environmental and operational loading are within the appropriate design limits established for such operations;

severe storm condition – a condition wherein a drilling unit may be subjected to the most severe environmental loadings for which it is designed. Drilling or similar operations are assumed to have been discontinued due to the severity of the environmental conditions;

transit condition – conditions wherein a drilling unit is moving from one geographical location to another;

installation condition – from the completion of the unit transit to a location to the commencement of operating condition consisting in such activities as the unit setting up, mooring and levelling or waiting for favourable environmental conditions allowing to perform these activities;

retrieval condition – from the completion of operating condition to the commencement of transit condition consisting in activities enabling the unit transit such as attaining buoyancy condition, recovering the anchors, appropriate ballasting or waiting for favourable environmental conditions allowing to perform these activities.

Offshore drilling and production unit – a functionally related group of units fitted with drilling equipment for liquid or gas subsea resources exploitation, storage and preparation for their transfer to a vessel or the shore facilities, as well as units provided with crew accommodation spaces.

Principal dimensions – length, breadth, depth, etc. used to define the overall size of the unit. These data, together with other pertinent particulars are published in the Register Bok.

Protective coating – coating materials applied to provide protection against corrosion, usually epoxy or equivalent. Other coating systems may be considered acceptable as alternatives, provided they are applied and maintained in accordance with the manufacturer's specifications.

Soft protective coating – coating that remains soft so that it wears off at low mechanical impact, when touched, due to erosion, etc. Soft protective coating is based on lanolin, vegetable oil or other organic, as well as non-organic substances.

Semihard coating – a coating that dries or converts in such a way that it stays flexible and has the ability to prevent corrosion for at least three years.

Hard coating – coating that remains hard, usually epoxy or equivalent.

Preload Tank – Preload Tank is a tank within the hull of a self-elevating unit. These tanks are periodically filled with salt water ballast and used to preload the footings of the unit prior to commencing drilling operations. Preload Tanks are considered equivalent to Ballast Tanks.

Propulsion Assist – Propulsion Assist are non-self-propelled Units fitted with thrusters intended to assist in manoeuvring or propelling while under tow.

Public spaces – halls, dining rooms and other similar enclosed spaces.

Reconstruction of drilling unit – widespanning activities aimed at extension of the unit's service life.

Representative Spaces – Representative Spaces are those which are expected to reflect the conditions of other spaces of similar type and service and with similar corrosion prevention systems. When selecting Representative Spaces, account is to be taken of the service and repair history on board and identifiable Critical Structural Areas and/or Suspect Areas.

Self-elevating MODU – a mobile offshore drilling unit having hull with sufficient buoyancy for safe transit of the unit, fitted with movable legs capable of raising the hull above the surface of the sea. On location the hull is raised to a predetermined elevation above the sea surface on legs supported by the sea bed. Drilling operations are held in such condition.

Semi-enclosed location – a location where natural conditions of ventilation are notably different from those on open decks due to the presence of structures such as roofs, windbreaks and bulkheads and which are so arranged that dispersion of gas may not occur.

Service spaces – galleys, pantries containing cooking appliances, lockers, store-rooms, workshops other than those forming part of the machinery spaces, as well as similar spaces and trunks to such spaces.

Sister units – units built to the same approved plans for classification purposes which may have minor design alterations, provided that such alterations do not affect the matters related to classification.

Special consideration – Special consideration or specially considered (in connection with close-up surveys and thickness measurements) means sufficient close-up inspection and thickness measurements are to be taken to confirm the actual average condition of the structure under the coating.

Substantial corrosion – an extent of corrosion such that assessment of corrosion pattern indicates wastage in excess of 75% of allowable margins, but within acceptable limits.

Surface-type MODU – a drilling ship or a drilling barge.

Survey – a set of activities relating to a drilling unit, its machinery, appliances, equipment, etc. realized through review of technical documentation, as well as carrying out appropriate examinations, measurements and tests.

Suspect Area – Suspect Areas are locations showing Substantial Corrosion and/or are considered by the Surveyor to be prone to rapid wastage.

Transverse Section – Transverse Section (Girth Belt) includes all continuous longitudinal members such as plating, longitudinals and girders at a given section of the unit.

Water depth – the vertical distance from the sea bed to the mean low water level plus the height of astronomical and storm tides.

Watertightness – capability of preventing the passage of water through the structure in any direction under the head of water for which the surrounding structure is designed.

Weathertightness – the ability of a structure to resist water penetration inside the unit in any sea conditions.

1.2.2 Hazardous Areas Definitions

Hazardous areas are divided into zones, as follows:

1.2.2.1 Zone 0 (Z0) – in which an explosive gas/air mixture is continuously present or present for long periods in normal operation.

1.2.2.2 Zone 1 (Z1) – in which an explosive gas/air mixture is likely to occur in normal operation.

1.2.2.3 Zone 2 (Z2) – in which an explosive gas/air mixture is not likely to occur, or in which such mixture, if it does occur, will only exist for a short time.

1.2.2.4 Below are presented examples of areas which are categorized to specified zones:

Hazardous areas zone 0 (Z0):

- .1** the internal spaces of closed tanks and pipes for active drilling mud between the well and the final degassing discharge, as well as oil and gas products, e.g. gas outlets.

Hazardous areas zone 1 (Z1):

- .2** enclosed spaces containing any part of the mud circulating system that has opening into the spaces and is between the well and the final degassing discharge;
- .3** in outdoor and semi-enclosed locations – the areas within 1.5 m from the boundaries of any openings to equipment which is part of the mud system as specified in .2, any ventilation outlets of zone 1, or any access to Z1 spaces;
- .4** pits, ducts or similar structures in locations which would otherwise be Z2 but which are so arranged that dispersion of gas may not occur;
- .5** enclosed spaces or semi-enclosed locations that are below the drill floor and contain a possible source of release such as the top of a drilling nipple;
- .6** enclosed spaces that are on the drill floor and which are not separated by a solid floor from the spaces specified in .5.

Hazardous areas zone 2 (Z2):

- .7** enclosed spaces which contain open sections of the mud circulating system from the final degassing discharge to the mud pump suction connection at the mud pit;
- .8** outdoor locations within the boundaries of the drilling derrick up to a height of 3 m above the drill floor;
- .9** semi-enclosed derricks to the extent of their enclosure above the drill floor or to a height of 3 m above the drill floor, whichever is the greater;

- .10 semi-enclosed locations below and contiguous to the drill floor and to the boundaries of the derrick or to the extent of any enclosure which is liable to trap gases;
- .11 outdoor locations below the drill floor and within a radius of 3 m from a possible source of release such as the top of a drilling nipple;
- .12 the areas 1.5 m beyond the Z1 areas specified in paragraphs 1.2.2.4.3 and 1.2.2.4.5;
- .13 outdoor areas within 1.5 m of the boundaries of any ventilation outlet from or access to Z2 space, except cases specified in paragraph 1.2.2.5.2;
- .14 air locks between Z1 and non-hazardous area.

1.2.2.5 Communication between the Zones

Where, for operational reasons, access doors or other openings are required between a non-hazardous space and the adjacent Z1 space or Z2 space, any non-hazardous space and having direct access to any Z1 location or Z2 location becomes the same zone as the location, except that:

- .1 an enclosed space with direct access to any Z1 location can be considered as Z2 if:
 - the access is fitted with a gastight door opening into Z2 space, and
 - ventilation is such that the air flow with the door open is from Z2 space into Z1 location, and
 - loss of ventilation is alarmed at a manned station;
- .2 an enclosed space with direct access to any Z2 location is not considered hazardous if:
 - the access is fitted with a self-closing gastight door that opens into the non-hazardous location, and
 - ventilation is such that the air flow with the door open is from the non-hazardous space into Z2 location, and
 - loss of ventilation is alarmed at a manned station;
- .3 an enclosed space with direct access to any Z1 location is not considered hazardous if:
 - the access is fitted with self-closing gastight doors forming an airlock, and
 - the space has ventilation overpressure in relation to the hazardous space, and
 - loss of ventilation overpressure is alarmed at a manned station.

Where ventilation arrangements of the intended safe space are considered sufficient by PRS to prevent any ingress of gas from Z1 location, the two self-closing doors forming an airlock may be replaced by a single self-closing gastight door which opens into the non-hazardous location and has no hold-back device.

2 SCOPE OF SURVEY

2.1 PRS' classification survey, based on the principles and requirements specified in the present *Rules*, covers:

- .1 materials used in the construction and equipment of a drilling unit,
- .2 welding,
- .3 hull structure strength,
- .4 drilling unit intact and damage stability,
- .5 drilling unit watertight and weathertight integrity,
- .6 drilling unit temporary and emergency mooring equipment,
- .7 jacking of self-elevating units,
- .8 machinery arrangements:
 - main propulsion machinery,
 - steering gear,
 - mooring and towing equipment,
 - auxiliary machinery,
 - piping systems, including pumps and fittings,
 - boilers and pressure vessels,
 - protection against fire and explosion protection arrangements,
 - electrical equipment and installations,
 - sea pollution prevention arrangement,
 - ventilation appliances,

- .9 special arrangements, machinery and systems associated with the unit drilling operations:
 - special hull design,
 - boilers,
 - pressure vessels,
 - compressors.

2.2 The items, specified below, are not subject to PRS' survey and are not covered by the present *Rules*:

- .1 structural details and technical parameters of arrangements and machinery used exclusively in drilling operations, except in so far as their design or arrangement may affect the safety of the drilling unit;
- .2 determination of the adequacy of sea bed conditions, regarding load bearing capacity, resistance to possible sliding and anchor holding capability;
- .3 the assessment of the required holding capacity, arrangement and operation of position mooring equipment and dynamic positioning equipment used for station-keeping activities in connection with the drilling unit operations which is the responsibility of the Owner.

3 CLASS OF A MOBILE OFFSHORE DRILLING UNIT

3.1 General

3.1.1 PRS may assign a class to a new or an existing drilling unit, as well as to confirm, renew or reinstate class of an existing unit classed with PRS.

3.1.2 Assignment, confirmation and renewal of class, as well as class reinstatement means that the drilling unit, in full measure or to a degree considered by PRS acceptable, complies with the relevant requirements of the *Rules*.

3.1.3 Class of a drilling unit is assigned or renewed, for 5 years. In justified cases, having regard to the technical condition of the hull, machinery, electrical equipment or special arrangements, machinery and systems associated with drilling operations covered by PRS' survey, PRS may assign a class to a drilling unit for a shorter period or may shorten the class validity as a result of the Class Renewal Survey, inserting an appropriate additional mark in the symbol of class – see 3.2.8.

3.1.4 In exceptional cases, at the Owner's justified request, PRS may grant an extension of class validity not exceeding 3 months to allow the drilling unit to proceed to a location where it will be subjected to the due survey. The scope of such survey is specified by PRS in each particular case.

3.1.5 If, due to circumstances reasonably beyond the Owner's or PRS' control, limited, however, to such cases as:

- unforeseen inability of PRS to carry out the due survey of the unit (the governmental restrictions on right of access or movement of personnel),
- unforeseeable mobile offshore drilling unit delay in location or inability to attend the unit due to unusually lengthy periods of severe weather, strikes or civil strife, acts of war or other force majeure, the unit is not in a location, port, shipyard or other place where the overdue surveys can be completed by the expiry of periods allowed, PRS may, at the Owner's request, to maintain the unit's class validity, to an agreed location at which the survey will be completed, provided that:

- .1 the overdue surveys, within the greatest possible scope, are carried out at the first convenient location of call,
- .2 PRS is satisfied that the unit is in condition to sail and that the Owner acts in good faith.

If the drilling unit's class has been automatically suspended, it may be reinstated subject to compliance with the above requirements.

3.1.6 Machinery, electrical equipment and special arrangements covered by PRS' survey are classed within the scope specified by PRS in each particular case. Class of machinery is confirmed by *Machinery Certificate*.

3.1.7 PRS may suspend or withdraw the drilling unit's class in cases specified in Chapters 6 and 7.

3.2 Main Symbol of Class and Symbol of Machinery

3.2.1 Main Symbol of Class of a Drilling Unit Built under PRS Survey

3.2.1.1 The main symbol of class of a drilling unit built under PRS' survey consists of the mark * and the mark GKM or GK:

- * **GKM** – for drilling unit with mechanical propulsion,
- * **GK** – for drilling unit without mechanical propulsion.

3.2.1.2 If the drilling unit essential machinery (engines, machines, boilers) have been built under PRS' survey, the following symbol is inserted in the *Machinery Certificate*:

*** PRM**

3.2.2 Main Symbol of Class of a Drilling Unit not Built under PRS Survey

3.2.2.1 If a drilling unit has been built under the survey of the other recognized Classification Society and then the unit has been assigned PRS class, the following main symbol of class is given:

- GKM** – for drilling unit with mechanical propulsion,
- GK** – for drilling unit without mechanical propulsion.

3.2.2.2 If the drilling unit essential machinery (engines, machines, boilers) have been built under the survey of the other recognized Classification Society and then the drilling unit has been assigned PRS class, the following symbol is inserted in the *Machinery Certificate*:

PRM

3.2.2.3 If a drilling unit has not been built under the survey of the other recognized Classification Society and has later been assigned PRS class, the following main symbol of class is given:

- (GKM)** – for drilling unit with mechanical propulsion,
- (GK)** – for drilling unit without mechanical propulsion.

3.2.2.4 If the drilling unit essential machinery (main engines, machines, boilers) have not been built under the survey of the recognized Classification Society and then the drilling unit has been assigned PRS class, the following symbol is inserted in the *Machinery Certificate*:

(PRM)

3.2.3 Drilling Unit Type Marks

.1 Self-elevating drilling unit is assigned the mark:

E

affixed to the symbol of class.

.2 Column-stabilized drilling unit is assigned the mark:

C

affixed to the symbol of class.

.3 Drilling ship or drilling barge is assigned the mark:

S

affixed to the symbol of class.

3.2.4 Ice Strengthening Marks

3.2.4.1 Ice strengthenings of drilling units designed for drilling operations in areas where ice strengthening is necessary are subject to separate consideration by PRS in each particular case. If PRS is satisfied that the drilling unit is reinforced as necessary for operation in the specified ice condition, the unit will be assigned the mark:

L

affixed to the symbol of class.

3.2.5 Subdivision Mark

If a drilling unit complies with subdivision requirements, it will be assigned the mark:

[1]

The subdivision mark means that after the flooding of any one compartment the unit will remain afloat in a satisfactory state of equilibrium.

3.2.6 Mark of an Unattended Machinery Space

If automatic systems and machinery of a drilling unit comply with the requirements of *Part VIII – Electrical Installations and Control Systems* of the *Rules for the Classification and Construction of Sea-going Ships*, such drilling unit will be assigned the mark:

AUT

affixed to the symbol of class.

The mark is applicable only in the case of machinery spaces being capable of an unattended operation during at least 8 consecutive hours. Inclusion of the mark in the symbol of class means that the scope of automation of machinery affords the possibility of its operation without direct attendance of the crew. Where a machinery space is capable of longer than 8 hours unattended operation, it is indicated in the *Certificate of Class (Temporary Certificate of Class)*.

3.2.7 Positioning Equipment Marks

If automatic systems and machinery of a unit comply with the relevant requirements specified in *Part VIII – Electrical Installations and Control Systems*, of the *Rules for the Classification and Construction of Sea-going Ships*, such unit may be assigned one of the following marks affixed to the symbol of class:

SP

when the unit is fitted with static positioning system.

or the mark:

DP

when the unit is fitted with dynamic positioning system.

3.2.8 Mark of Limited Period of Class Validity

If, as a result of survey, the necessity to shorten the classification cycle has been stated, the appropriate mark of class validity period is placed in the symbol of class:

< 3 – when the classification cycle is shortened to 3 years,

< 2 – when the classification cycle is shortened to 2 years,

< 1 – when the classification cycle is shortened to 1 year.

3.2.9 Additional Descriptive Information

Other drilling unit's class related requirements, conditions or restrictions, not denoted by additional marks in the symbol of class, are entered in *Certificate of Class (Temporary Certificate of Class)*.

4 CLASS ASSIGNMENT

4.1 General

4.1.1 The condition for assigning class to a drilling unit is the Owner's written request for PRS class assignment, submission of the required technical documentation and satisfactory result of the Initial Survey for Assignment of Class.

4.1.2 PRS may assign class to:

- .1 a new drilling unit, built under PRS' survey,
- .2 an existing drilling unit with valid class assigned by other recognized Classification Society,
- .3 an existing drilling unit whose class, assigned by other recognized Classification Society, has become invalid,
- .4 an existing drilling unit which has not been classed before by other recognized Classification Society,

4.1.3 In the cases, referred to in 4.1.2.1 and 4.1.2.4 prior to the commencement of survey activities the appropriate classification documentation shall be submitted to the PRS Head Office for approval, see 4.2 and 4.4.

4.1.4 Classification documentation, submitted to PRS, shall contain drawings and calculations taking into account loads relevant to the given type of a drilling unit.

4.1.5 After completion of the Initial Survey for Assignment of Class (as well as after Class Renewal Survey), PRS field organization unit issues the *Temporary Certificate of Class* to enable the drilling unit to be put into service. The results of the Initial Survey are subject to the PRS Head Office verification.

4.1.6 Assignment of class is confirmed by the issue of the *Certificate of Class* and an appropriate entry made in the PRS Register.

4.2 Classification Documentation and Workshop Documentation of a Drilling Unit Built under PRS Survey

Prior to the commencement of a drilling unit construction, classification documentation, specified in 4.2.1 to 4.2.10, shall be submitted to the PRS Head Office for consideration and approval.

4.2.1 Main plans:

- .1 technical description of a drilling unit,
- .2 a general arrangement plan showing the unit shape,
- .3 environmental parameters determining:
 - sea bed characteristics,
 - wave heights and periods,
 - wind speed,
 - current speed,
 - minimum air and water temperature,
 - the unit's draught,
 - other environmental factors,
 - permissible water depth,
 - permissible sea bed penetration,
 - minimum distance of the hull from the water surface,
 - maximum unit loads during transit and operating conditions.

4.2.2 Hull Plans

The submitted drawings shall clearly indicate the scantlings, structure, grades of materials and methods of connection. These drawings shall include the following, where applicable:

- .1 longitudinal sections with scantlings,
- .2 transverse sections with scantlings,

- .3 distribution of fixed and variable weights,
- .4 plan indicating design loadings for all decks,
- .5 decks (including helicopter deck),
- .6 framing,
- .7 hull(s) shell plating,
- .8 watertight bulkheads and decks,
- .9 structural bulkheads and decks,
- .10 tank boundaries, including air and overflow pipes,
- .11 pillars and girders,
- .12 diagonals and struts,
- .13 legs,
- .14 legs structure in way of jacking or other elevating arrangements,
- .15 hull structure in way of jacking or other elevating arrangements,
- .16 stability columns and intermediate columns,
- .17 hulls, pontoons, footings, pads or mats,
- .18 superstructures and deckhouses,
- .19 the arrangement and details of watertight doors and hatches showing the height of coamings and closing appliances,
- .20 welding details and procedures,
- .21 methods and locations for non-destructive tests.

In addition to the above drawings, the following data and calculations shall be submitted:

- .22 structural analysis for the relevant loading conditions,
- .23 resultant forces and moments from wind, waves, current, mooring and other environmental loadings taken into account in the structural analysis,
- .24 effects of icing on structural loading, stability and windage area,
- .25 significant operational loads from drilling derrick and associated equipment on supporting structures and other similar significant loadings,
- .26 calculations substantiating adequacy of structure to transit forces between legs and hull through the jacking or other elevating system,
- .27 evaluation of the drilling unit's ability to resist overturning while bearing on the sea bed.

The results from the relevant model tests or dynamic response calculations may be submitted as alternatives or as substantiation for the required calculations. The submitted calculations shall be suitably referenced.

4.2.3 Hull Equipment Plans:

- .1 the arrangement of closing appliances of openings (for information);
- .2 plans of steering gear, anchoring (for temporary and emergency mooring), mooring and towing arrangements, together with steering gear and rudder stock drawings;
- .3 calculations for steering gear, anchoring (for temporary and emergency mooring), mooring and towing arrangements (for information);
- .4 corrosion protection arrangements;
- .5 sea trials programme.

4.2.4 Stability:

- .1 body lines, hydrostatic curves and static moments curves;
- .2 cross-curves of stability;
- .3 capacity plan and position of the centres of mass of spaces and tanks;
- .4 tables of free surfaces corrections;
- .5 flooding angle curve;
- .6 stability booklet.

4.2.5 Subdivision:

- .1 calculations of the unit buoyancy after the flooding of one compartment;
- .2 calculations of damage stability after the flooding of one compartment;

- .3 arrangements for equalizing the unit after damage, together with the necessary calculations;
- .4 subdivision booklet, including plan of watertight compartments, location of openings and types of their means of closure, and location of equalizing arrangements.

4.2.6 Fire Protection Plans:

- .1 the arrangement of the drilling unit fire divisions and other fire-resisting and fire-retarding divisions showing doors, means of closure, passages, casings, etc.;
- .2 a general arrangement plan of the drilling unit showing means of escape and emergency exits to the open deck;
- .3 the arrangement of fire stations, central and other fire posts, as well as control stations for particular modes of operation;
- .4 diagrams of fire signalling system;
- .5 diagrams and calculations of fire-extinguishing systems;
- .6 detailed description of fire protection measures indicating the applied insulation materials, decorative materials, place of their application and flammability level;
- .7 detailed data on the materials applied for the first time: flammability level and fire hazard;
- .8 hazardous areas plan, indicating the whole electrical equipment and machinery installed in each zone (including production equipment) and the type of means of closure for particular areas.

4.2.7 Plans of Machinery Installations and Boilers:

- .1 arrangement plan of machinery, boilers and other arrangements (including boilers and compressors of production installations) in machinery spaces, as well as in spaces for emergency sources of power, showing escape routes;
- .2 specification of characteristics data of machinery and boiler arrangements, together with calculation data;
- .3 a plan of engines central control station and diagram of engines remote control system;
- .4 a general arrangement plan of shaft lines for units with mechanical propulsion, including torsional vibration calculations;
- .5 drawings of shafts: propeller, intermediate, thrust, as well as shaft couplings and clutches;
- .6 a general drawing and strength calculations of solid propeller;
- .7 a diagram of controllable pitch propellers and/or other propellers control system;
- .8 drawings of stern tube;
- .9 scheme and calculations of hull elevating system;
- .10 programme of dock and sea trials;
- .11 list of spare parts.

4.2.8 Piping System Plans – Diagrams of:

- .1 bilge system;
- .2 sewage, drainage and scupper systems showing watertight bulkheads and decks;
- .3 ballast system;
- .4 heel and trim equalizing system;
- .5 fuel filling and fuel pumping systems, including fuel system for helicopters;
- .6 sounding, air and overflow pipes showing diameters of filling pipes;
- .7 boiler feed water system and boiler scum system;
- .8 fuel oil system;
- .9 steam pipelines and tanks preheating system;
- .10 condensate and heat exchange system;
- .11 main and auxiliary machinery cooling system;
- .12 lubricating oil system;
- .13 compressed air and other gas systems, including production tanks systems;
- .14 exhaust pipes;
- .15 ventilation system showing: watertight bulkheads, fire divisions, arrangement of fire and smoke dampers, type and capacity of ventilation for particular spaces and hazardous areas, as well as pressure values for particular spaces in hazardous areas.

4.2.9 Plans of Electrical Equipment:

- .1 principle diagrams of power generation and distribution circuits of the main and emergency electric power sources;
- .2 specification of data on the circuits indicating current values, the applied protective devices, as well as the types and cross-sectional areas of cables;
- .3 diagrams of the main and emergency switchboards, control and monitoring panels and other devices of non-standard design;
- .4 calculation results of the main and emergency electric power sources output, necessary to provide operation of the drilling unit in all modes of operation;
- .5 calculation results of short-circuit currents on the main switchboard busbars and in other points of electric network, including the selection of protective devices (for drilling units fitted with generators of more than 1000 A power rating);
- .6 diagrams of internal communication and signalling;
- .7 principle diagrams of essential electric drives of: steering gear, fire pumps, bilge and ballast pumps;
- .8 diagrams of protective earthing, drawings and if necessary, calculation of lightning conductors;
- .9 principle diagram of cable passages, indicating compartments through which they pass;
- .10 data on electrical equipment in explosion hazardous spaces;
- .11 diagrams of emergency shutdown system;
- .12 results of accumulator batteries capacity calculations;
- .13 arrangement plans of generators, switchboards, accumulator batteries and explosion-proof equipment;
- .14 programme of dock and sea trials.

4.2.10 Plans of Automated Machinery

The scope of automated machinery and automatic systems documentation will be specially considered by PRS in each particular case.

4.2.11 Workshop Documentation of a Drilling Unit under Construction

In addition to the approved classification documentation, workshop documentation shall be submitted to the relevant PRS field organization unit for agreement.

PRS field organization unit agrees the scope of workshop documentation with the shipyard for each building separately. The provisions of the relevant *Rules for the Classification and Construction of Sea-going Ships*, may be applied, as found applicable.

4.3 Certificates and Classification Documentation of Drilling Unit with Class of other recognized Classification Society

Where request is made for classification of a drilling unit which has class or previously has been classed by other recognized Classification Society, the following certificates and classification documentation shall be submitted:

- .1 last *Certificate of Class*,
- .2 all reports on inspections carried out by Classification Society Surveyors during the last Class Renewal Survey and subsequent surveys,
- .3 documents relating to anchors and anchor chains for temporary or emergency mooring (see 2.1.6);
- .4 technical description of a drilling unit,
- .5 a general arrangement plan,
- .6 midship section,
- .7 longitudinal section,
- .8 shell expansion or equivalent drawings for particular parts of the unit,
- .9 watertight bulkheads and decks,
- .10 steering gears and rudder stocks (for units with mechanical propulsion),
- .11 stability booklet,

- .12 subdivision calculations (where compliance with subdivision requirements is required),
- .13 fire divisions (if provided),
- .14 a general arrangement plan of machinery spaces and boiler rooms, as well as emergency sets compartments,
- .15 propeller shafts and stern tubes (for units with mechanical propulsion),
- .16 diagrams of the basic pipe systems,
- .17 steam boilers and other pressure vessels,
- .18 principle diagrams of electric networks,
- .19 principle diagrams of main and emergency switchboards,
- .20 the unit division into hazardous areas and a list of electrical equipment installed in such spaces, indicating explosion-proof equipment,
- .21 drilling unit operating manuals,
- .22 copies of the latest statutory documents issued by the Administration or an institution authorized by the Administration.

4.4 Certificates and Classification Documentation of a Drilling Unit which has Not been Classed Before by other Recognized Classification Society.

Where request is made for classification of a drilling unit which has not been classed before, the documentation within the scope specified in 4.3 (except that listed in sub-paragraphs 1 and 2) shall be submitted to PRS. Where deemed necessary, additional documentation may be required by PRS.

4.5 Operating Booklet

Each drilling unit shall be provided with an operating booklet. The booklet shall contain information for the operating personnel on the safe operation of the unit in both normal and emergency conditions. The operating booklet shall be provided on the unit prior to the issue, by PRS, *Temporary Certificate of Class*. The booklet shall be agreed with PRS and shall contain:

- .1 a general description of the drilling unit, indicating the lightweight data based on the results of an inclining test, as well as hydrostatic curves or equivalent data;
- .2 pertinent data for each approved mode of operation, including design loads from waves and current, wind, minimum anticipated air and sea temperatures, assumed sea bed conditions, draught and other environmental factors;
- .3 a general arrangement plan, indicating permissible deck loadings and showing watertight compartments, closures and vents. For the unit provided with permanent ballast – the ballast weight, arrangement and material used shall be clearly indicated;
- .4 drilling unit stability booklet containing maximum KG-draught or displacement curve based upon compliance with the required intact and damage stability criteria;
- .5 drilling unit subdivision information;
- .6 instructions for operation, including precautions to be taken in adverse weather, changing mode of operations or any inherent limitations of operations;
- .7 drawings and description of ballast system, together with instructions for ballasting;
- .8 tank sounding tables;
- .9 hazardous areas plan;
- .10 fire control plan approved by the Maritime Administration Authorities;
- .11 representative examples of loading conditions for each approved mode of operation, together with means for evaluation of other loading conditions;
- .12 details of emergency shut down procedures for electrical equipment;
- .13 diagram of main fuel system, including fuel storage tanks;
- .14 information relating to safety means, including the arrangement of life-saving appliances and personnel evacuation proceedings;
- .15 drilling derrick operation rated parameters;
- .16 diagrams of main and emergency electric power supply, as well as diagrams of electric installation, details of emergency shut down procedures for electrical equipment;
- .17 particulars of the helicopter used for the design of the helideck;

- .18 a set of drawings showing the exact location and extent of application of different grades and strength of structural materials;
- .19 a description of the material and welding procedures employed, as well as any other relevant construction information;
- .20 data relating to restrictions and prohibitions regarding repairs or modifications.

4.6 Initial Survey

4.6.1 The detailed scope of the Initial Survey of a drilling unit under construction is specified each time by attending PRS field organizational unit on the basis of the *Rules*, approved documentation and the local building conditions.

4.6.2 The scope of the Initial Survey of an existing drilling unit is determined by PRS Head Office according to requirements presented in *Publication No 97/P– Transfer of Class and Adding, Maintaining or Withdrawing Double or Dual Class* .

4.6.3 Operating booklet (see 4.5) shall be agreed within the scope of the Initial Survey.

5 MAINTENANCE OF CLASS – INTERVALS BETWEEN SURVEYS AND SURVEY SCOPE

5.1 General

5.1.1 The conditions for maintaining the drilling unit’s class are:

- maintaining drilling unit’s structure, installations and equipment – in a satisfactory technical condition,
- operation of the drilling unit in accordance with conditions specified in the *Certificate of Class*, the manufacturer’s instructions and the principles of good seamanship,
- carrying out due Periodical Surveys at scheduled dates,
- complying, at specified dates, with the retroactive requirements, set forth in particular Parts of the *Rules*,
- carrying out recommendations at scheduled dates,
- carrying out the required Occasional Surveys,
- timely payment of fees for survey services.

5.1.2 All drilling units classed with PRS are subject, within each classification cycle, to the following Periodical Surveys:

- Annual Survey,
- Intermediate Survey,
- Class Renewal Survey,
- Periodical Surveys of appliances subject to their own survey cycle (e.g. steam boilers).

5.1.3 All drilling units classed with PRS are subject to Occasional Surveys in cases specified in 5.5 and 5.6.

5.1.4 Periodical Surveys of drilling units may be performed by PRS on Continuous Survey basis or other alternative survey systems, described in sub-chapter 5.4.

5.1.5 PRS informs the Owner on the dates of due Periodical Surveys by the unit’s survey status. Non-receipt of the unit’s survey status does not absolve the Owner from an obligation to submit the unit for survey at the dates specified in the *Rules*.

5.1.6 Class Renewal Survey shall ascertain that the drilling unit’s technical condition complies with the requirements of the *Rules* and that the unit is fit for the intended purpose for the subsequent 5-year period – subject to proper maintenance and operation.

5.1.7 The Annual and Intermediate Survey, through examination and operation test of particular machinery, arrangements and installations, shall ascertain that the drilling unit meets, in a satisfactory degree, class maintenance conditions.

5.1.8 The Annual, Intermediate or Class Renewal Survey may be considered complete if an appropriate survey of drilling unit has been held within the scope specified in sub-chapters 5.2 and 5.3. PRS may extend the scope of surveys, depending on the drilling unit's age, technical condition, as well as the type of equipment and structure.

5.1.9 After completion of Periodical Survey, PRS field organization unit endorses the *Certificate of Class* or issues *Temporary Certificate of Class* to enable the drilling unit operation. The results of Periodical Survey are subject to verification by the PRS Head Office.

5.1.10 Intervals between Periodical Surveys of a drilling unit built under PRS' survey will date from the commencement of classification cycle.

5.1.11 Intervals between Periodicals Surveys of drilling units which have entered PRS class with a valid class of other recognized Classification Society, drilling units that have not been classed before by other recognized Classification Society and drilling units with class withdrawn are set by PRS.

5.1.12 PRS may shorten the intervals between examinations, measurements or tests of drilling unit's particular machinery, arrangements, systems and equipment if it is found necessary due to their technical condition or service conditions. In this case, new due dates of examinations, measurements or test shall be, in general, concurrent with Periodical Surveys.

5.1.13 In justified cases, PRS Surveyor may dispense with a survey of particular items of machinery in dismantled condition or limit the scope of survey if external examinations, measurements and operation tests prove that the machinery item is in a good and efficient condition.

5.1.14 Repairs

5.1.14.1 Any damage in association with wastage over the allowable limits (including buckling, grooving, detachment or fracture) or extensive areas of wastage over the allowable limits, which affect or, in the opinion of PRS Surveyor, will affect drilling unit's structural, watertight or weathertight integrity, is to be promptly and thoroughly repaired.

For locations where adequate repair facilities are not available, consideration may be given to allow the drilling unit to proceed directly repair facility. This may require temporary repairs for the intended voyage.

5.1.14.2 Additionally, when a survey results in the identification of structural defects or corrosion, either of which, in the opinion of PRS Surveyor, will impair the drilling unit's fitness for continued service, remedial measures are to be implemented before the unit continues in service.

5.1.14.3 Where the damage mentioned in Para 5.1.15.1 is isolated and of a localised nature which does not affect the drilling unit's structural integrity, consideration may be given by the surveyor to allow an appropriate temporary repair to restore watertight or weathertight integrity and impose a recommendation with a specified time limit.

5.1.14.4 Where repairs of the drilling unit structure, machinery or essential equipment are to be carried out during operation, they shall be performed only upon consent and under conditions agreed with PRS. In such cases, the Owner is obliged to submit to PRS, for acceptance, the Repairs Programme.

Failure to agree, in advance, the repairs may result in suspension of the drilling unit's class. The Owner who plans such repairs is obliged to submit, to PRS, the Repairs Programme determining the object of repairs, the repairs' extent and technology, and the repairs' performer, as well as to agree the date and scope of the survey after repairs.

In justified cases, PRS Surveyor's attendance, during repairs, may be required.

An agreement is not required in the case of maintenance and overhaul to hull, machinery and equipment in accordance with the manufacturer's recommended procedures and established marine practice.

In addition, any not planned repairs, made during operation, which affect or may affect the drilling unit's class, shall be noted in the pertinent documents and submitted, as soon as possible, to PRS for the purpose of determining the scope of survey connected with the drilling unit's class.

5.1.14.5 In the case of repairs to the coating in ballast tanks, holds and on drilling unit underwater part plating, the Owner is obliged to submit, to PRS, document confirming that the coating was applied in accordance with the manufacturer's recommendations. In the case of routine maintenance work carried out by the drilling unit's crew, submission of an Owner's report is required.

5.1.14.6 Thickness measurements of the drilling unit structural elements, if not carried out by PRS itself, shall be witnessed by PRS Surveyor to the extent necessary to control the process. A meeting, prior to the commencement of the thickness measurements, shall be attended by PRS Surveyor, the Owner's representative and the representative of the thickness measurement firm. During the meeting, communication between parties involved in the thickness measurements shall be agreed.

Thickness measurements of the drilling unit structural members required for Class Renewal Survey shall be carried out, where practicable, in advance, but not before the Annual Survey preceding Class Renewal Survey.

5.1.15 Conditions for Survey

5.1.15.1 The Owner is obliged to properly prepare a drilling unit for each survey.

5.1.15.2 Sufficient illumination is to be provided to reveal corrosion, deformation, fractures, damages or other structural deterioration.

5.1.15.3 Where soft or semi-hard coatings have been applied, safe access to be provided for PRS Surveyor to verify the effectiveness of the coating and to carry out an assessment of the conditions of internal structures which may include spot removal of the coating. When safe access cannot be provided, the soft or semi-hard coating is to be removed.

5.1.15.4 PRS Surveyor may refrain from performing a survey if he considers that the unit has not been properly prepared for the survey.

5.1.15.5 If, during the survey, entering a confined space is necessary, the requirements contained in *Publication No. 28/I Requirements for Safe Entry to Confined Spaces* shall be complied with.

5.1.16 Access to the Structures

5.1.16.1 For survey means are to be provided to enable PRS Surveyor to examine the hull structure in a safe and practical way.

5.1.16.2 For survey in void compartments and water ballast tanks, one or more of the following means for access, acceptable to PRS Surveyor, is to be provided:

- permanent staging and passages through structures,
- temporary staging and passages through structures,
- lifts and movable platforms,
- boats or rafts,
- other equivalent means.

5.1.16.3 Remote inspection techniques may be used to facilitate the required internal examinations, including close-up examinations and gauging required with close-up examinations.

Proposals for use of remote inspection techniques shall be submitted to PRS' for approval in advance of the survey.

Where such techniques are applied, confirmatory close-up examinations are carried out by PRS Surveyor at selected locations.

The use of remote inspection techniques may be restricted or limited where there is an indication of abnormal deterioration or damage to structure.

5.1.17 Services, which constitute the basis for drilling unit technical condition assessment by PRS, such as:

- examination of the unit's underwater part by a diver (see *Publication No. 52/P – Underwater Inspection of Mobile Offshore Drilling Units in Lieu of Drydocking Survey*);
- thickness measurements of drilling unit's structural members;
- non-destructive and destructive tests (see *Publication No. 18/I – Guidelines for Non-Destructive Tests of the Underwater Part of Mobile Offshore Drilling Units*);
- surveys and tests of fire-extinguishing systems,

as well as all repairs which affect drilling unit's technical condition, such as:

- the unit structure repairs;
- renovations of machinery and equipment (main engines, main gear, shafts, main and emergency generating sets, boilers and pressure vessels, anchoring equipment and steering gear, propellers, compressors, fire, bilge and water ballast pumps, main and emergency switchboards);
- repairs with use of special processes and procedures (welding, laminating, pulverization, Metalock repair, filling with chemo setting products),

shall be performed by service suppliers approved by PRS (see *Publication No. 51/P – Procedural Requirements for Service Suppliers*).

In justified cases, PRS Surveyor may, at the Owner's request, agree on performance of services by a service supplier not holding PRS' approval – on a single approval basis, after verifying the service supplier's ability to perform such services.

All above-mentioned activities, performed by a service supplier, shall be verified by PRS Surveyor.

Thickness measurements of the drilling unit's structural members and examination of the underwater part shall be performed in the presence of PRS Surveyor.

5.1.18 Each measurement constituting the basis for the assessment of the structure, machinery or equipment technical condition shall be carried out with measuring devices calibrated to recognized national or international standards. Each measuring device shall have valid calibration certificate. PRS Surveyor may accept, without confirmation of calibration:

- simple measuring equipment (e.g. rulers, measuring tapes, weld gauges, micrometers, etc.), provided they are of standard commercial design, properly maintained and periodically verified by the user;
- the equipment fitted on board drilling unit and used for checking pressure, temperature or rpm, etc., provided their readings are compared with other similar instruments.

5.1.19 Survey Offshore or at Anchorage

5.1.19.1 Survey offshore or at anchorage may be accepted provided PRS Surveyor is given the necessary assistance from the personnel onboard.

5.1.19.2 A communication system is to be arranged between the survey party in the tank or space and the responsible officer on deck. The system must also include the personnel in charge of ballast bump handling if boats or rafts are used.

5.1.19.3 When boats or rafts are used, appropriate life jackets are to be available for all participants. Boats or rafts are to have satisfactory residual buoyancy and stability even if one chamber is ruptured. A safety checklist is to be provided.

5.1.19.4 Surveys of tanks by means of boats or rafts may only be undertaken at the sole discretion of PRS surveyor, who is to take into account the safety arrangement provided, including weather forecasting and unit response in reasonable sea conditions.

5.2 Self-Elevating and Column-Stabilized Units

5.2.1 Intervals between Periodical Surveys

5.2.1.1 Intervals between Periodical Surveys of a drilling unit will date from the issue, by PRS, of the first classification document for the unit.

5.2.1.2 Intervals between Periodical Surveys of a drilling unit accepted to PRS class with valid class of other recognized Classification Society are as determined by that Society.

5.2.1.3 The Annual Survey

The Annual Survey shall be held within 3 months, before and after each an niversary of the assignment of class or the class renewal.

5.2.1.4 The Intermediate Survey

The Intermediate Survey shall, as a rule, be held at either the second or third Annual Survey. Examinations and tests, which are additional to the requirements of the Annual Survey, may be performed either at or between the second and third Annual Survey.

5.2.1.5 The Class Renewal Survey

- .1 The Class Renewal Survey of a drilling unit shall be held within the unit class validity period, i.e. at 5-yearly intervals. The first Class Renewal Survey shall be completed within 5 years from the date of the initial classification survey and thereafter within 5 years from the credited date of the previous Class Renewal Survey. In exceptional **circumstances, as defined in 1.2**, upon PRS' agreement, a maximum 3-month extension of class beyond the 5th year may be granted.
- .2 Where the Class Renewal Survey is completed within 3 months before and after the expiry date of class validity, the period of validity of the new *Certificate of Class* shall not exceed 5 years from the expiry date of the existing *Certificate of Class*. Where the Class Renewal Survey is completed more than 3 months before the expiry date of class validity, the period of validity of the new *Certificate of Class* will start from the survey completion date.
- .3 The Class Renewal Survey may be commenced at the fourth Annual Survey and be progressed so as to be completed by the expiry date of the Certificate of Class.
Where the Class Renewal Survey is commenced before the fourth Annual Survey, the entire survey shall be completed within 15 months. The period of validity of the new *Certificate of Class* will start from the survey completion date.
- .4 If surveys of particular items, required at Class Renewal Survey, have been carried out, in the required scope, within 12 months before the due Class Renewal Survey, such surveys will be credited for Class Renewal Survey.

5.2.1.6 The survey of the underwater part of drilling unit

- .1 The survey of underwater part shall be conducted twice within each classification cycle: during Intermediate Survey and Class Renewal Survey. The intervals between consecutive surveys shall not exceed 36 months; in exceptional circumstances, as defined in 1.2, PRS may accept an extension to a maximum of 3 months. The Owner may decide that the survey of the underwater part is to be carried out in several stages;
- .2 the survey of underwater part of drilling unit may be carried out by divers (*see Publication No. 52/P – Underwater Inspection of Mobile Offshore Drilling Units in Lieu of Drydocking Survey*).

5.2.1.7 Survey of all types of boilers shall be carried out during the unit's Periodical Surveys.

- .1 The following boilers are subject to Periodical Survey:
 - steam boilers used for main propulsion,
 - auxiliary steam boilers,
 - all other steam boilers having working pressure exceeding 0.35 MPa or a heating surface exceeding 4.5 m²,

- thermal oil boilers.
- .2 The following shall apply:
 - external survey of all types of boilers is performed at annual intervals, at the time of the unit Periodical Survey. The external survey shall be carried out after internal survey and tightness test, if performed;
 - internal survey of steam and thermal oil boilers shall be carried out at the time of the unit’s Periodical Survey, twice within 5-year classification cycle; however, the intervals between successive internal surveys shall not exceed 3 years;

5.2.1.8 PRS may shorten the intervals between consecutive periodical surveys of the drilling unit, as well as the intervals between examinations, measurements or tests of particular items of machinery, installations and equipment if it is found necessary due to their technical condition.

5.2.2 Scope of Periodical Surveys

5.2.2.1 Scope of Annual Survey

5.2.2.1.1 Hull, structure elements and equipment:

5.2.2.1.1.1 At each Annual Survey, the exposed parts of the hull, deck, deck house, structures attached to the deck, derrick substructure, including supporting structure, accessible internal spaces, and the applicable parts listed below are to be generally examined and placed in satisfactory condition as found necessary.

5.2.2.1.1.2 PRS Surveyor is to be satisfied at each Annual Survey that no material alterations have been made to the unit, its structural arrangements, subdivision, superstructure, fittings, and closing appliances upon which the stability calculations or the load line assignment is based.

5.2.2.1.1.3 Suspect Areas identified at previous surveys are to be examined. Thickness measurements are to be taken of the areas of substantial corrosion and the extent of thickness measurements is to be increased to determine areas of substantial corrosion. Table III may be used as guidance for these additional thickness measurements. These extended thickness measurements are to be carried out before the annual survey is credited as completed.

5.2.2.1.1.4 All Units

The following items are to be examined:

- accessible hatchways, manholes and other openings;
- machinery casings and covers, companionways, and deck houses protecting openings;
- portlights together with deadcovers, cargo ports and similar openings in hull sides, ends, or in enclosed superstructures;
- ventilators, tank vent pipes together with flame screens, and overboard discharges from enclosed spaces;
- watertight bulkheads and end bulkheads of enclosed superstructures;
- closing appliances for all the above, including hatchcovers, doors, together with their respective securing devices, dogs, sill, coamings and supports;
- freeing ports together with bars, shutters and hinges;
- windlass and attachment of anchor racks and anchor cables;
- protection of the crew, guard rails, lifelines, gangways, and deck houses accommodating crew.

5.2.2.1.1.5 Self-Elevating Units

In addition to the requirements of 5.2.2.1.1.4 the following items are to be examined:

- jack-house structures and attachments to upper hull or platform;
- jacking or other elevating systems and leg guides, externally;
- legs as accessible above the waterline;
- plating and supporting structure in way of leg wells.

5.2.2.1.1.6 Column-Stabilized Units

In addition to the requirements of 5.2.2.1.1.4 the following items are to be examined:

- columns, diagonal and horizontal braces together with any other parts of the upper hull supporting structure as accessible above the waterline.

Note: At the 1st Annual Survey after construction, Column Stabilized and Self Elevating Units may be subject to examination of major structural components including non-destructive testing, as deemed necessary by the Society. If the Society deems such survey to be necessary, the extent should be agreed to by the Society and the Owner or operator prior to commencement of the Survey.

5.2.2.1.2 Machinery and Electrical Equipment

- .1 Internal combustion engines:
 - examination and operation tests of engine safety system,
 - examination of high pressure fuel pipelines;
 - operation tests of starting arrangements, manoeuvring gear and suspended mechanisms.
- .2 Pumps
 - .1 Bilge, ballast, general use, lubricating oil, fuel pumps:
 - external examination;
 - operation tests;
 - .2 Drilling fluid pumps (see 2.2):
 - external examination;
 - records checking.
- .3 Compressors and pressure vessels of air and drilling fluid:
 - external examination;
 - operation tests of compressors;
 - operation test of safety valves.
- .4 Pinions and racks of the drilling unit's hull elevating arrangements:
 - external examination;
 - operation tests.
- .5 Pipelines, including fittings
 - .1 Bilge, ballast, lubricating oil, fuel, compressed air, steam pipelines:
 - external examination;
 - operation tests of valves, with particular consideration given to remote closed valves; if during survey such tests are not feasible, the Owner is obliged to agree with PRS the date of conducting such tests.
 - .2 Drilling fluid (see 2.2) pipelines, including fittings:
 - external examination (within the scope agreed with the Owner),
 - records checking.
- .6 Steam boilers and thermal oil boilers:
 - .1 The external survey of steam boiler covers:
 - examination of the boiler fastenings,
 - examination of the boiler casing and insulation,
 - external examination of the boiler fittings,
 - functional test while in operation.
 - .2 During the test, referred to above, operation of the following shall be checked:
 - boiler and steam superheater safety valves,
 - boiler supply and circulating water system,
 - boiler blow-off and skimming system,
 - water level indicators,
 - pressure gauges,
 - remote control of the main steam valve and safety valves,
 - fuel supply system,
 - boiler automatic system,
 - boiler safety system,
 - boiler alarm system.

- .3 The external survey of thermal oil heater covers:
 - external examination,
 - operation tests of safety valves,
 - checking the operation of alarm and safety systems of limit temperature of thermal oil and exhaust gases,
 - checking the correctness of pressure gauges indicators
 - operation tests of the valves remote control,
 - operation tests of the arrangements for emergency discharge of thermal oil from installation,
 - remote stopping the circulating pumps.
- .7 Fire protection

Requirements according to *Rules for the Classification and Construction of Sea-going Ships, Part I – Classification Regulations*, Para. 5.3.3.3
- .8 Electrical equipment and automation
 - .1 The main sources of electric power:
 - test load;
 - parallel test run, including the test of reverse current or reverse power protection;
 - checking the settings of overload and short circuit protection of generators.
 - .2 Emergency sources of electric power:
 - operation test of emergency generating set;
 - test of emergency accumulators.
 - .3 Distributing devices – main and emergency switchboards, navigation lanterns switchboard, battery charging facilities, together with battery room ventilation, control and monitoring consoles, shore connection installations, section and terminal switchboards:
 - examinations.
 - .4 Electric power converting installations supplying essential consumers:
 - operation tests.
 - .5 Electric drives of essential machinery (including control and monitoring devices) of: pumps, air compressors, drilling unit’s hull jacking system, anchoring arrangements, mooring and towing winches, steering gear, fans, watertight doors, doors separating hazardous areas, dynamic positioning arrangements:
 - operation tests.
 - .6 Main lighting and emergency lighting of compartments and places important from the point of view of the safety of the drilling unit and persons on board:
 - examination;
 - operation tests.
 - .7 Internal communication and electrical signalling arrangements (service telephone communication, general alarm system):
 - operation tests.
 - .8 Generating sets automatic control system:
 - operation tests.
 - .9 Safety system of engines driving generating sets:
 - operation tests.
 - .10 Automation systems of pumps, compressors, boilers, including safety systems:
 - operation tests.
 - .11 Independent ventilation system of hazardous areas, including safety system:
 - operation tests;
 - examinations.
 - .12 Explosion-proof equipment and installations:
 - examination.

5.2.2.1.3 Annual survey requirements of units of unusual design, in lay-up or in unusual circumstances will be determined on individual basis.

5.2.2.2 Scope of Intermediate Survey

The Intermediate Survey covers the requirements of Annual Survey and additionally:

- .1 structure examination of:
 - superstructures and deckhouses,
 - machinery spaces with casings,
 - selected ballast tanks;
- .2 operation tests of:
 - steering gear (for units with mechanical propulsion);
- .3 survey of drilling unit's underwater part (see 5.2.2.5).

5.2.2.3 Scope of Class Renewal Survey

5.2.2.3.1 Prior to the commencement of the survey, a survey planning meeting is to be held and planning of the activities necessary for the execution of the below items shall be agreed with PRS:

- a specific, evaluated in written format, Survey Program for hull Class Renewal Survey,
- completion of the examination cycle within Continuous Survey or other alternative survey systems, if applied (see 5.4);
- examination of arrangements due for surveys at the dates other than those of the drilling unit Class Renewal Survey (e.g. boilers);
- examination of the underwater part of the drilling unit (see 5.2.2.5).

5.2.2.3.2 A survey planning meeting is to be held prior to the commencement of the Class Renewal Survey.

5.2.2.3.3 Class Renewal Survey covers the requirements of the Intermediate Survey and additionally

5.2.2.3.4 Hull, structure elements and deck equipment

5.2.2.3.4.1 Class Renewal Survey No. 1

The following hull structure and equipment items are to be examined.

5.2.2.3.4.1.1 All Units

- the hull or platform structure including tanks, watertight bulkheads and deck, cofferdams, void spaces, sponsons, chain lockers, duct keels, helicopter deck and its supporting structure, machinery spaces, peak spaces, steering gear spaces, and all other internal spaces are to be examined externally and internally for damage, fractures, or excessive diminution. Thickness gauging of plating and framing may be required where wastage is evident or suspected;
- all tanks, compartments and free-flooding spaces throughout the drilling unit are to be examined externally and internally for excess wastage or damage;
- internal examinations of spud cans and mats may be specially considered;
- watertight integrity of tanks, bulkheads, hull, decks and other compartments is to be verified by visual inspection;
- suspect areas and critical areas should be examined and may be required to be tested for tightness, non-destructive tested or thickness gauged;
- all special and primary application structures and identified critical structural areas are to be subjected to Close up survey;
- tanks and other normally closed compartments are to be ventilated, gas freed and cleaned as necessary to expose damages and allow meaningful examination and thickness gauged in case of excessive diminution;
- internal examination and testing of void spaces, compartments filled with foam or corrosion inhibitors, and tanks used only for lube oil, light fuel oil, diesel oil, fresh water, drinking water or other non-corrosive products may be waived provided that upon a general examination PRS Surveyor considers their condition to be satisfactory. External thickness gauging may be required to confirm corrosion control;

- structures such as derrick substructure and supporting structure, jack-houses, deck houses, superstructures, helicopter landing areas, raw water (sea water intake) towers and their respective attachments to the deck or hull are to be examined;
- windlass and attachments of anchor racks and anchor cable fairleads are to be examined;
- foundations and supporting headers, brackets, and stiffeners for drilling related apparatus, where attached to hull, deck, superstructure or deck house are to be examined;
- thickness gaugings are to be carried out where wastage is evident or suspect;
- where provided, the condition of corrosion prevention system of ballast tanks is to be examined. Where a hard protective coating is found in POOR condition and it is not renewed, where soft or semi-hard coating has been applied, or where a hard protective coating was not applied from time of construction, the tanks in question are to be subject to internal examination at annual intervals. Thickness measurements shall be performed as deemed necessary by PRS Surveyor;
- thickness measurements are to be carried out in accordance with Tables I or II as applicable. PRS Surveyor may extend the thickness measurements as deemed necessary. When thickness measurements indicate substantial corrosion, the extent of thickness measurements is to be increased according to Table III in order to determine areas of substantial corrosion. These extended thickness measurements are to be carried out before the survey is credited as completed.
- for Surface-type Units additionally: structural appendages and ducts for positioning units.

5.2.2.3.4.2 Self-Elevating Units

In addition to the requirements of 5.2.2.3.4.1.1 the following items are to be examined:

- all legs, including chords, diagonal and horizontal braces, gussets, racks, joints, together with leg guides. Tubular or similar type legs are to be examined externally and internally, together with internal stiffeners and pinholes as applicable;
- structure in, around and under jack-house and leg wells. Non-destructive testing of suspect (these) areas may be required;
- leg jacking or other elevating systems externally;
- leg connections to bottom mats or spud cans, including non-destructive testing of leg connections to mats or spud cans;
- jetting piping systems or other external piping, particularly where penetrating mats or spud cans;
- spud cans or mats. Where the spud cans or mat are partly or entirely obscured below the mud line where the Special Survey is otherwise being completed, consideration may be given to postponement of the examinations until the next drilling unit move.

5.2.2.3.4.3 Column-Stabilized Units

In addition to the requirements of 5.2.2.3.4.1.1 the following items are to be examined:

- connections of columns and diagonals to upper hull, structure or platform and lower hull, structure or pontoons;
- joints of supporting structure including diagonals, braces and horizontals, together with gussets and brackets. Internal continuation or back-up structure for the above;
- non-destructive examination may be required of suspect (these) areas.

5.2.2.3.4.4 Class Renewal Survey No. 2 and Subsequent Class Renewal Survey

Class Renewal Survey should cover at least requirements of Class Renewal Survey No. 1, with special attention being given to the condition and thickness of material in high corrosion areas. Representative thickness gaugings will be required as per Table I or II as applicable. These gaugings will be specified in advance by PRS. Special attention should be paid to splash zones on structure, legs or related structure, and in ballast tanks, pre-load tanks, free-flooding spaces, spud cans and mats.

Machinery Items – Non-Self-Propelled Units. In addition to the requirements for Annual Surveys, at each Special Survey, special attention is to be given to the following items as applicable:

- All openings to the sea, including sanitary and other overboard discharges, together with cocks and valves connected therewith are to be examined internally and externally while the Unit is in drydock, or at the time of underwater examination in lieu of drydocking, and the fastenings to the shell plating are to be renewed when considered necessary by the Surveyor.

- Pumps and pumping arrangements, including valves, cocks, pipes and strainers are to be examined. Non-metallic flexible expansion pieces in the main salt water circulating system are to be examined internally and externally. The Surveyor is to be satisfied with the operation of the bilge and ballast systems. Other systems are to be tested as considered necessary.
- The foundations of machinery are to be examined.
- Heat exchangers and other unfired pressure vessels within the scope of classification are to be examined, opened up or thickness gauged and pressure tested as considered necessary, and associated relief valves proved operable. Evaporators that operate with a vacuum on the shell need not be opened, but may be accepted on basis of satisfactory external examination and operational test or review of operating records.

Self-Propelled Units. In addition to the requirements for non-propelled units, the main and auxiliary propulsion machinery, including associated pressure vessels should be surveyed. In addition, examination of the steering machinery is to be carried out, including an operational test and checking or relief-valve settings. The machinery may be required to be opened for further examination as considered necessary by the Surveyor.

Units with Propulsion – Assist or Dynamic Position Propulsion

- assist and dynamic positioning equipment should be surveyed on the basis of Special Periodical Survey-Machinery in accordance with the requirements of PRS.

Electrical Equipment. In addition to the requirements for Annual Surveys, at each Renewal Survey, special attention is to be given to the following items as applicable:

- Fittings and connections on main switchboards and distribution panels are to be examined, and care is to be taken to see that no circuits are overfused.
- Cables are to be examined as far as practicable without undue disturbance of fixtures.
- All generators are to be run under load, either separately or in parallel. Switches and circuit breakers are to be tested.
- All equipment and circuits are to be inspected for possible development of physical changes or deterioration. The insulation resistance of the circuits is to be measured between conductors and between conductors and ground and these values compared with those previously measured.
- Electrical auxiliaries installed for vital purposes, generators and motors are to be examined and their prime movers opened for inspection. The insulation resistance of each generator and motor is to be measured.
- The windings of main propulsion generators and motors are to be thoroughly examined and found or made dry and clean. Particular attention is to be paid to the ends of all windings of stators and rotors.
- Emergency power systems are to be examined and tested.

Shipboard Automatic and Remote-Control Systems. In addition to the requirements of Annual Surveys the following parts are to be examined:

- Control Actuators: All mechanical, hydraulic, and pneumatic control actuators and their power systems are to be examined and tested as considered necessary.
- Electrical equipments: The insulation resistance of the windings of electrical control motors or actuators is to be measured, with all circuits of different voltages above ground being tested separately to the Surveyor's satisfaction.
- Unattended Plants: Control systems for unattended machinery spaces are to be subjected to dock trials at reduced power on the propulsion engine to ensure verify the proper performance of all automatic functions, alarms, and safety systems.

Special Features (All Types). Mobile Offshore Drilling Units may have many items of machinery and electrical equipment not found on conventional vessels. Certain of these items are required for classification even if the unit is without propulsion machinery. Items to be especially examined and reported upon at all Special Surveys are as follows:

Hazardous Areas - Enclosed hazardous areas such as those containing open active mud tanks, shale shakers, degassers and desanders are to be examined and doors and closures in boundary bulkheads verified as effective. Electric lighting, electrical fixtures, and instrumentation are to be examined, proven satisfactory and verified as explosion-proof or intrinsically safe. Ventilating systems including ductwork, fans, intake and exhaust locations for enclosed restricted areas are to be examined, tested and proven

satisfactory. Ventilating air alarm systems to be proven satisfactory. Electrical motors are to be examined including closed-loop ventilating systems for large D-C motors. Automatic power disconnect to motors in case of loss of ventilating air is to be proved satisfactory.

- Remote Shutdown Arrangements - Remote shutdown for fuel-oil transfer service pumps and ventilating equipment, together with oil tank outlet valves where required to be capable of being remotely closed are to be proved satisfactory. Emergency switch(es) for all electrical equipment including main and emergency generators, except alarm and communication systems and lighting in vital areas such as escape routes and landing platforms, are to be proved satisfactory.
- On self elevating type Mobile Offshore Drilling Units, the elevating systems are to be examined and reported on. Pinions and gears of the climbing pinion gear train of rack and pinion systems are to be examined, as far as practicable, to the Surveyor's satisfaction by an effective crack detection method.
- Piping systems used solely for drilling operations and complying either with the PRS requirements or a recognized standard are to be examined, as far as practical, operationally or hydrostatically tested to working pressure, to the satisfaction of the Surveyor.
- Bilge alarm systems, if fitted, to be tested.

5.2.2.3.5 Fire Protection

Requirements according to *Rules for the Classification and Construction of Sea-going Ships, Part I – Classification Regulations, Para. 5.4.5.3*

5.2.2.4 Scope of Steam Boiler and Thermal Oil Boiler Survey

5.2.2.4.1 External survey of steam boiler and thermal oil boiler is carried out at every periodical survey (see 5.2.2.1.2.6).

5.2.2.4.2 For the purpose of the internal survey:

- both sides, water and combustion, of the boiler shall be sufficiently clean to enable a proper assessment of the examined parts (water and steam drums, boiler furnace, combustion chambers and furnaces, tubes, stays and stay-bolts, steam super heaters and economizers);
- examination of the boiler mountings, in dismantled condition, shall be carried out;
- for thermal oil boilers, hydraulic test with a pressure equal to 1.25 the working pressure,
- if upon examination, there is any doubt as to the technical condition of the boiler, PRS may require that additional thickness measurements of boiler parts, partial or complete removing of insulation or hydraulic test should be carried out;
- the internal survey of thermal oil heater is carried out within the scope of the applicable requirements concerning steam boiler internal survey.

5.2.2.4.3 If, during the Periodical Survey or Occasional Survey, damages that require repair of the boiler are detected, the repair shall be performed under PRS Surveyor's supervision according to the repair procedure approved by PRS. After repair, hydraulic test to a pressure 1.25 the working pressure shall be carried out.

5.2.2.4.4 On repair of the boiler mountings, hydraulic test to a pressure specified in the *Rules for the Classification and Construction of Sea-going Ships, Part VI – Machinery Installations and Refrigerating Plants* shall be carried out.

5.2.2.5 Scope of drilling unit underwater part survey.

5.2.2.5.1 The scope of the underwater survey of self-elevating and column-stabilized drilling units covers:

- examination of the underwater part of self-elevating unit legs ;
- external examination of the entire plating of columns, lower hulls, footings and other underwater parts;
- examination of all sea valves, including sea chests;
- examination of bracing members connecting columns and other underwater parts;
- examination of propeller shafts and propellers;

- examination of shafts and dynamic positioning system thrusters;
- examination of rudder stock and blades;
- examination of the inside of columns and other underwater parts;
- tightness tests of tanks indicated by PRS Surveyor and spaces inside the columns, as well as other underwater parts;
- thickness measurements of underwater structure and splash zones in accordance with Table I or Table II.

5.2.2.5.2 The survey of underwater part of self-elevating and column-stabilized units may be carried out by divers instead of Drydocking Survey, provided that:

- neither deterioration nor damage to the unit's underwater part, affecting its proper operation, have occurred since the last survey;
- the results of the plating measurements and non-destructive tests of suspect areas, agreed with PRS, are satisfactory;
- the in-water survey programme, agreed with PRS, contains a lay out of areas to be surveyed. These areas shall be properly named and marked to ensure correct description and identification of the areas to be surveyed;
- the survey is carried out by suitably qualified divers or divers being Surveyors to PRS. The survey shall be documented by video tapes and underwater photographs; in the case of divers who are not PRS Surveyors, the survey shall be carried out using close-circuit television and two-way communication between the diver and the attending PRS Surveyor;
- the areas to be surveyed are sufficiently clean;
- the sea water is clear enough to afford good visibility;
- provision is made for disassembly and repair of valves on the unit's underwater areas plating;
- stern bearings and rudder bearings (of mechanically propelled units) do not show excessive clearance and wear down;
- examination of propeller shafts and propellers, the propellers of dynamic positioning system, rudder stock and blades are limited to external examination, clearance measurements and checking the sealing tightness.
- all requirements of *No.52/P – Underwater Inspection of Mobile Offshore Drilling Units in Lieu of Drydocking Survey* are to be fulfilled;

The in-water survey documentation (the survey programme, reports, photographs, tapes, etc.) shall be available on board the drilling unit for reference at the subsequent survey.

5.3 Drilling Ships and Drilling Barges

5.3.1 Periodical Surveys of drilling ships and drilling barges regardless of a length and regardless of assigned restricted service marks shall be carried out within the scope specified in the *Rules for the Classification and Construction of Sea-going Ships, Part I – Classification Regulations*, extended by the additional requirements given below.

5.3.2 Additional requirements for Annual Survey:

- .1 examination of load-bearing structure and helideck (if fitted);
- .2 examination and tests of doors in boundaries of particular hazardous areas;
- .3 examination and operation test of dynamic positioning system;
- .4 examination of the drilling plant load-bearing and supporting structures;
- .5 drilling fluid systems (see 2.2):
 - external examination, within the scope agreed with the Owner, as well as records checking;
- .6 drives of closing appliances for doors separating hazardous spaces – operation test;
- .7 independent ventilation of hazardous areas, together with warning and alarm signalization;
 - operation test, examination;
- .8 explosion-proof electrical equipment installed in spaces and areas associated with drilling operations – examination.

5.3.3 Additional requirements regarding Intermediate Survey are the same as those given in 5.3.2, covering also examination of the selected drilling fluid tanks forming part of the ship or the barge structure.

5.3.4 Additional requirements for Class Renewal Survey are the same as those given in 5.3.3 and cover also:

- .1 examination of drilling fluid tanks forming part of the ship or the barge structure, not examined during the classification cycle;
- .2 examination of drilling fluid pressure tanks as prescribed by their operating instructions and checking the relevant records;
- .3 examination of elements of pumps and compressors used in the drilling fluid system in the case of unsatisfactory operation or if prescribed by the manufacturer's operating instructions;
- .4 operation test of the drilling fluid system (see 2.2). If there is any doubt as to the technical condition of the pipes, PRS may require the hydraulic test or wall thickness measurements to be carried out;
- .5 examination and checking correctness of indications of drilling plant control instruments and gauges according to recommendations issued by PRS Surveyor and agreed with the Owner.

5.4 Continuous Surveys and other Alternative Survey Systems

5.4.1 At the written request of the Owner, in lieu of direct survey, PRS may accept Continuous Survey or other alternative survey system for specified items of the unit's hull, machinery installations and automatic systems.

5.4.2 Continuous Survey of the unit's hull, machinery installations and automatic systems, as well as surveys of the unit's hull in Consolidated Supervision System and the survey of machinery installations and automatic systems in Planned Maintenance Scheme shall be carried out at the time of Annual Survey.

5.4.3 Continuous Survey of Hull (CHS), as well as Consolidated Supervision System of Hull (CSS) are carried out in accordance with the requirements of *Publication No. 54/P – Alternative Hull Survey Arrangements*.

5.4.4 Continuous Survey of Machinery (CMS), as well as Planned Maintenance Scheme (PMS) of machinery are carried out in accordance with the requirements of *Publication No.2/P – Alternative Survey Arrangements for Machinery*.

5.4.5 Renewal survey requirements of units of unusual design, in lay-up or in unusual circumstances will be determined on individual basis.

5.4.6 Occasional Surveys

5.4.6.1 Damage Survey

5.4.6.1.1 It is the responsibility of the Owner/operator of the unit to report to the Society without delay any damage, defect or breakdown, which could invalidate the conditions for which a classification has been assigned so that it may be examined at the earliest opportunity by the PRS Surveyor(s). All repairs found necessary by the Surveyor are to be carried out to his satisfaction.

5.4.6.2 Repairs

5.4.6.2.1 Where repairs to hull, legs, columns or other structures, machinery or equipment, which affect or may affect classification, are planned in advance to be carried out, a complete repair procedure including the extent of proposed repair and the need for Surveyors attendance is to be submitted to and agreed upon by the PRS reasonably in advance. Failure to notify the PRS, in advance of the repairs, may result in suspension of the unit's classification until such time as the repair is redone or evidence

submitted to satisfy the Surveyor that the repair was properly carried out. This applies also to repairs during voyage or on site.

5.4.6.2.2 The above is not intended to include maintenance and overhaul to hull, other structures, machinery and equipment in accordance with recommended manufacturers procedures and established marine practice and which does not require PRS approval; however, any repair as a result of such maintenance and overhauls which affects or may affect classification is to be noted in the ships log and submitted to the Surveyor.

5.4.6.3 Lay-up and Reactivation Surveys.

5.4.6.3.1 When the PRS is notified by the Owner that a Unit has been laid-up, this status will be noted in the vessel's survey status and surveys falling due during lay-up may then be held in abeyance until the vessel reactivates, at which time they are to be brought up-to-date.

5.4.6.3.2 Units which have been laid up and are returning to active service, regardless of whether the PRS has been previously informed that the vessel has been in lay-up, a Reactivation Survey is required. The requirements for the Reactivation Survey are to be specially considered in each case, having due regard being given to the status of surveys at the time of the commencement of lay-up, the length of the lay-up period and the conditions under which the vessel has been maintained during that period.

5.4.6.3.3 Alterations. No alterations which may affect classification are to be made to the hull or machinery of a classed unit unless plans of proposed alterations are submitted and approved by the PRS before the work of alterations is commenced. Such work is to be carried out in accordance with approved plans and tested on completion as required by the PRS Rules and to the satisfaction of the Surveyor.

5.4.6.4 Welding and Replacement of Materials

5.4.6.4.1 Welding of steels, including high strength structural steel, is to be to the satisfaction of the PRS.

5.4.6.4.2 Welding or other fabrication performed on steels of special characteristics or repairs or renewals of such steel or in areas adjacent to such steel is to be accomplished with procedures approved by the PRS considering the special materials involved. Substitution of steels differing from those originally installed is not to be made without approval by the PRS.

5.5 Audits

On PRS classed drilling units, audits may be required to be carried out to determine compliance of the processes, performed by PRS, with the quality system provisions.

Upon PRS' consent, external auditors may participate in the audits. At PRS' request, the Owner is obliged to submit the drilling unit for auditing, within the scope, at a date and place agreed with PRS.

6 SUSPENSION OF CLASS

6.1 Automatic Suspension of Class

The unit's class is automatically suspended if:

- .1** The validity of class has expired before completion of Class Renewal Survey.
In exceptional circumstances, as defined in the *Rules for the Classification and Construction of Sea-going Ships, Part I – Classification Regulations*, PRS may grant an extension of class not exceeding, however, 3 months;
- .2** recommendations issued by PRS have not been carried out in the due time or class assignment conditions have not been complied with. In such case PRS may extend the validity of class until a new date assigned for recommendations execution or class assignment conditions compliance;
- .3** damage to structure, machinery, installations or equipment, covered by the requirements of PRS *Rules*, has been found;

- .4 changes have taken place that affect entries in the *Certificate of Class* (change of the Owner, Flag, port of registry);
- .5 the design and service conditions or operation area, specified in classification documents, have been transgressed;
- .6 the unit has not been subjected to the Periodical Survey within 3 months of the due date of the survey.

6.2 Class Suspension due to Owner's Financial Overdues

If the Owner has not paid PRS for services connected with the drilling unit, the drilling unit's class will be suspended by the PRS Head Office decision. The Owner will be notified **one month in advance**, in writing, of PRS' intent to suspend the class.

6.3 Duration of Class Suspension

The drilling unit's class will be suspended from the date of class suspension until the date of class reinstatement. Class suspension period should not last longer than **6 months**. If class suspension period exceeds 6 months, the drilling unit class is subject for withdrawal.

At the Owner's request, PRS may grant a longer suspension period when the drilling unit is not operating as in the event of awaiting PRS' decision in case of a casualty or attendance for class reinstatement.

6.4 Class Reinstatement

The drilling unit's class will be reinstated subject to satisfactory execution of the reasons which caused class suspension.

6.5 Notification to Owners and Flag States

PRS will confirm the suspension and reinstatement of the drilling unit's class by separate letters sent to the Owner and the Flag State.

7 WITHDRAWAL OF CLASS

The class of a drilling unit is withdrawn in the following cases:

- after alterations to hull, superstructures, machinery, equipment and installations affecting the unit's safety and covered by the requirements of the *Rules* have been introduced without prior agreement with PRS;
- after the drilling unit has been sunk (scuttled) or transmitted for scrapping,
- at the written request of the Owner,
- **after prolonged class suspension, as described in 6.3,**

At the Owner's request, the drilling unit the class of which has been withdrawn may be subjected to a survey for reinstatement of class. The scope of the survey will be specified by PRS in each particular case.

8 LAY-UP AND RECOMMISSIONING OF DRILLING UNIT

8.1 At the Owner's request, a drilling unit may be laid-up, while maintaining its class. The request shall include:

- the planned drilling unit lay-up period and the unit lay-up location (quay, roadstead, etc.),
- a list of machinery (e.g. boilers, generating sets, bilge pumps, etc.) that will be kept in service during the unit's lay-up period,
- a list of the unit's crew.

8.2 A drilling unit is laid-up upon carrying out survey within the scope agreed with PRS in each particular case.

8.3 **During the laying-out period, the unit is subject to laid up confirmation surveys performed within 3 months, before and after each anniversary of the assignment of the laid-up status to the drilling unit.**

8.4 For a laid-up drilling unit, other Periodical Surveys, specified in 5.1.2, are automatically postponed until the survey for the unit's recommissioning.

8.5 A drilling unit is recommissioned at the Owner's request, upon carrying out a survey within the scope specified by PRS in each particular case.

The survey shall cover at least all due and overdue Periodical Surveys and recommendations.

Depending on the length of the laying-up period, dock trials of particular installations or their parts or sea trials may be required.

9 PREPARATION FOR SURVEY

9.1 Conditions for Survey

9.1.1 The Owner is to provide the necessary facilities for a safe execution of the survey. For confined space entry, the requirements of IACS Procedural Requirement PR37 should be followed.

9.1.2 Tanks and spaces are to be safe for access, i.e. gas freed, ventilated and illuminated.

9.1.3 In preparation for survey and thickness measurements and to allow for a thorough examination, all spaces are to be cleaned including removal from surfaces of all loose accumulated corrosion scale. Spaces are to be sufficiently clean and free from water, scale, dirt, oil residues etc. to reveal corrosion, deformation, fractures, damages, or other structural deterioration. However, those areas of structure whose renewal has already been decided by the Owner need only be cleaned and descaled to the extent necessary to determine the limits of the areas to be renewed.

9.1.4 Sufficient illumination is to be provided to reveal corrosion, deformation, fractures, damages or other structural deterioration.

9.1.5 Where soft or semi-hard coatings have been applied, safe access is to be provided for the surveyor to verify the effectiveness of the coating and to carry out an assessment of the conditions of internal structures which may include spot removal of the coating. When safe access cannot be provided, the soft or semi-hard coating is to be removed.

9.2 Access to Structures

9.2.1 For survey, means are to be provided to enable the surveyor to examine the hull structure in a safe and practical way.

9.2.2 For survey in void compartments and water ballast tanks, one or more of the following means for access, acceptable to the Surveyor, is to be provided:

- permanent staging and passages through structures;
- temporary staging and passages through structures;
- lifts and movable platforms;
- boats or rafts;
- other equivalent means.

9.3 Equipment for Survey

9.3.1 Thickness measurement is normally to be carried out by means of ultrasonic test equipment. The accuracy of the equipment is to be proven to the Surveyor as required. Thickness measurements are to be carried out by a firm approved by PRS.

9.3.2 One or more of the following fracture detection procedures may be required if deemed necessary by the Surveyor:

- radiographic equipment;
- ultrasonic equipment;
- magnetic particle equipment;
- dye penetrant.
- other acceptable NDT Techniques

9.4 Survey Offshore or at Anchorage

9.4.1 Survey offshore or at anchorage may be accepted provided the Surveyor is given the necessary assistance from the personnel onboard.

9.4.2 A communication system is to be arranged between the survey party in the tank or space and the responsible officer on deck. This system must also include the personnel in charge of ballast pump handling if boats or rafts are used.

9.4.3 When boats or rafts are used, appropriate life jackets are to be available for all participants. Boats or rafts are to have satisfactory residual buoyancy and stability even if one chamber is ruptured. A safety checklist is to be provided.

9.4.4 Surveys of tanks by means of boats or rafts may only be undertaken at the sole discretion of the Surveyor, who is to take into account the safety arrangements provided, including weather forecasting and ship response in reasonable sea conditions.

9.5 Procedures

9.5.1 Exposed Areas. An examination of the outside of the structure above the waterline is to be carried out by the PRS Surveyor. Means and access are to be provided to enable the Surveyor to accomplish visual inspection and non-destructive testing as necessary.

9.5.2 Underwater Areas. An examination of the entire unit below the waterline is to be carried out by an approved firm.

9.5.3 Damage Areas. Damage areas are to be photographed. Internal examination, measurements, marking and thickness gauging of such locations may be necessary as determined by the attending Surveyor. Means are to be provided for location, orienting and identifying underwater surfaces in photographs or on video tapes.

9.5.4 Alternatives. The PRS is prepared to consider alternatives to the above guidelines including remotely operated vehicles, provided means and details for accomplishing results are not less effective. Information Note: Appendix A would be applicable to all drilling unit types due to contents of paragraph

TABLE 1
Minimum Requirements for Thickness Measurements for Self-Elevating Units

Special Survey No.1 Age ≤ 5	Special Survey No.2 < 5 Age ≤ 10	Special Survey No.3 10 < Age ≤ 15	Special Survey No.4 and subsequent 15 < Age
1) Suspect areas throughout the unit.	1) Suspect areas throughout the unit	1) Suspect areas throughout the unit	1) Suspect areas throughout the unit
	2) Legs in way of Splash Zone.	2) Legs in way of Splash Zone	2) Legs in way of Splash Zone
	3) Primary application structures where wastage is evident.	3) Representative gaugings, throughout, of special and primary application structures.	3) Comprehensive gaugings, throughout, of special and primary application structures.
	4) Representative gaugings of upper hull deck and bottom plating and internals of one preload (ballast) tank.	4) Leg well structure.	4) Leg well structure.
		5) Representative gaugings of deck, bottom, and side shell plating of hull and mat.	5) Representative gaugings of deck, bottom, and side shell plating of hull and mat
		6) Representative gaugings of upper hull deck and bottom plating and internals of at least two preload (ballast) tanks.	6) Substructure of derrick as deemed necessary.
			7) Representative gaugings of internals of all preload (ballast) tanks.

TABLE 2
Minimum Requirements for Thickness Measurements for Surface Type Units

Special Survey No.1 Age ≤ 5	Special Survey No.2 < 5 Age ≤ 10	Special Survey No.3 10 < Age ≤ 15	Special Survey No.4 and subsequent 15 < Age
1	2	3	4
1) Suspect areas throughout the unit.	1) Suspect areas throughout the unit	1) Suspect areas throughout the unit	1) Suspect areas throughout the unit
	2) One transverse section of deck plating abreast the moon pool opening within the amidships 0.6L, together with internals in way as deemed necessary. Where unit is configured with side ballast tanks, the plating and internals of the tanks are also to be gauged in way of the section chosen.	2) Two Transverse Sections (Girth Belts) of deck, bottom and side plating abreast the moon pool and one hatch opening within the amidships 0.6L together with internals in way as deemed necessary. Where unit is configured with side ballast tanks, the plating and internals of the tanks to be gauged in way of the required belts, Remaining internals in ballast tanks to be gauged as deemed necessary	2) A minimum of three Transverse Sections (Girth Belts) of deck, bottom, side, and longitudinal bulkhead plating in way of the moon pool and other areas within the amidships 0.6L, together with internals in way (including in perimeter ballast tanks, where fitted in way of belts).
	3) Moon pool boundary bulkhead plating	3) Moon pool boundary bulkhead plating	3) Moon pool boundary bulkhead plating

1	2	3	4
		4) Internals in forepeak tank and aft peak tank as deemed necessary	4) Internals in forepeak tank and aft peak tank as deemed necessary
			5) Lowest strake of all transverse bulkheads in hold spaces. Remaining bulkhead plating to be gauged as deemed necessary
			6) All plates in two wind and water strakes, port and starboard, full length.
			7) All exposed main deck plating full length and all exposed first-tier super-structure deck plating (poop, bridge and forecastle decks).
			8) All keel plates full length plus additional bottom plating as deemed necessary by the Surveyor, particularly in way of cofferdams and machinery spaces
			9) Duct keel or pipe tunnel plating or pipe tunnel plating and internals as deemed necessary
			10) Plating of sea chests. Shell plating in way of overboard discharges as considered necessary by the attending surveyor.

TABLE 3
Minimum Requirements for Thickness Measurements for Column Stabilized Units

Special Survey No.1 Age ≤ 5	Special Survey No.2	Special Survey No.3 10 < Age ≤ 15	Special Survey No.4 and subsequent 15 < Age
1) Suspect areas throughout the unit.	1) Suspect areas throughout the unit.	1) Suspect areas throughout the unit.	1) Suspect areas throughout the unit.
2) Columns and bracings where wastage is evident in Splash Zone	2) Representative gaugings of columns and bracings in Splash Zone together with internals in way as deemed necessary	2) Representative gaugings, throughout, of special and primary application structures.	2) Comprehensive gaugings, throughout, of special and primary application structures.
	3) Special and primary application structure where wastage is evident.	3) One Transverse Section (Girth Belt) of each of 2 columns and 2 bracings in Splash Zone together with internals in way as deemed necessary	3) One Transverse Section (Girth Belt) of each of one-half of the columns and bracings in Splash Zone and internals in way as deemed necessary (i.e., gauge half of the unit's columns and bracings in Splash Zone).
		4) Lower hulls in way of mooring lines where wastage is evident. 4	4) Lower hulls in way of mooring lines where wastage is evident
		5) One Transverse Section (Girth Belt) of each lower hull between one set of columns	5) One Transverse Section (Girth Belt) of each lower hull between one set of columns.
			6) Representative gaugings of substructure of drilling derrick.

TABLE 4
Guidance for additional Thickness Measurements in way of Substantial Corrosion

Structural member	Extend of measurement	Pattern of measurement
Plating	Suspect area and adjacent plates	5 point pattern over 1 square meter
Stiffeners	Suspect area	3 measurements each in line across web and plange

List of amendments effective as of 1 January 2016

<i>Item</i>	<i>Title/Subject</i>	<i>Source</i>
1.2.1	Several definitions added	UR Z15 (Rev.1 Jan 2015)
5.1.14.3	Temporary repair	
5.2.1.5.1	Expalantion added	
5.2.2.1.1	Scope of Annual Survey	
5.2.2.1.3	Annual survey of units of unusual design	
5.2.2.3.1	Survey planning meeting	
5.2.2.3.4.1.1	Class Renewal Survey No 1	
5.2.2.3.4.2	Class Renewal Survey No. 2 and Subsequent Class Renewal Survey	
5.4.5	Annual survey of units of unusual design	
5.4.6	Ocassional surveys	
9	Preparation for survey	
APPENDIX	Tables 1-3	