RULES FOR APPROVAL OF MANUFACTURERS AND SERVICE SUPPLIERS

Rules for Approval of Manufacturers and Service Suppliers
2018 AMENDMENT NO.1

Rule No.133 25 December 2018
Resolved by Technical Committee on 1 August 2018

ClassNK
NIPPON KAIJI KYOKAI

Rule No.133 25 December 2018
AMENDMENT TO THE RULES FOR APPROVAL OF MANUFACTURERS AND SERVICE SUPPLIERS

“Rules for approval of manufacturers and service suppliers” has been partly amended as follows:

Part 3 REQUIREMENTS FOR APPROVAL OF SERVICE SUPPLIERS

Chapter 1 GENERAL

1.1 General

Paragraph 1.1.1 has been amended as follows.

1.1.1 Application

1 This part applies to service suppliers listed as follows:

(1) Firms engaged in thickness measurements on ships or mobile offshore units

(2) Firms carrying out an in-water survey ~~of~~ on ships and mobile offshore units by diver or Remotely Operated Vehicle

((3) to (14) are omitted.)

(15) Firms engaged in survey using remote inspection techniques as an alternative means for close-up survey of the structure of ships and mobile offshore units

(15~~5~~6) Firms other than those listed in **(1)** to **(14~~5~~5)** above

2 Firms listed in **-1(1)** through **(14~~5~~5)** are to comply with the requirements in this Part as well as the requirements in **Part 1**.

3 Firms listed in **-1(15~~5~~6)** are to comply with the requirements deemed appropriate by the Society as well as the requirements in **Part 1**.

4 Several servicing stations are owned by firms listed in **-1(1)** through **(14~~5~~5)**, each station is to be assessed and approved, except as specified in **1.2.5-6** to **-9**.

1.1.3 Definition of Terms

Sub-paragraph -4 has been amended as follows.

4 “Service supplier” or “supplier” means a person or company, not employed by an IACS Member, who at the request of an equipment manufacturer, shipyard, vessel's owner or other client acts in connection with inspection work and provides services for a ship or a mobile offshore ~~drilling~~ unit such as measurements, tests or maintenance of safety systems and equipment, the results of which are used by surveyors in making decisions affecting classification or statutory certification and services.

Title of Chapter 2 has been amended as follows.

Chapter 2 FIRMS ENGAGED IN THICKNESS MEASUREMENTS ON SHIPS OR MOBILE OFFSHORE UNITS

2.1 General

Paragraph 2.1.1 has been amended as follows.

2.1.1 Application

This chapter applies to firms engaged in carrying out thickness measurements of the structural members of ships or mobile offshore units, excluding the following types of ships:

(1) non-*ESP* Ships less than 500 *gross tonnage* and

(2) All fishing vessels.

Title of Chapter 3 has been amended as follows.

Chapter 3 FIRMS CARRYING OUT AN IN-WATER SURVEY ~~OF~~ ON SHIPS AND MOBILE OFFSHORE UNITS BY DIVER OR REMOTELY OPERATED VEHICLE

3.1 General

Paragraph 3.1.1 has been amended as follows.

3.1.1 Application

This chapter applies to firms engaged in-water survey in lieu of a docking survey and/or the internal hull survey of compartments filled with water on ships and mobile offshore units by diver or Remotely Operated Vehicle (ROV).

3.2 Quality System

Paragraph 3.2.1 has been amended as follows.

3.2.1 Work Procedures

The documented work procedures specified in **1.2.4** are to include information on at least the following items:

((1) to (5) are omitted.)

(6) Guidance for the operation and maintenance of the ~~Remote Operated Vehicle~~ROV, if applicable

(7) Methods and equipment to ensure the ROV operator can determine the ROV location and orientation in relation to the vessel

Paragraph 3.2.2 has been amended as follows.

3.2.2 Training Procedures

The documented training procedures specified in **1.2.2** are to at least include information on ways to acquire knowledge about the following items:

((1) to (6) are omitted.)

(7) Certification as a thickness measurement firm when conducting thickness measurements under water

(~~7~~8) Other special equipment and tools used for in-water surveys; and

(~~8~~9) Society requirements related to in-water surveys.

3.3 Diver and Supervisor

Paragraph 3.3.1 has been amended as follows.

3.3.1 Qualifications

1 Divers, diving supervisors, ROV operators and ROV supervisors carrying out in-water surveys are to have sufficient knowledge of the above **3.2.2(1)** through **(~~8~~9)**.

2 Divers carrying out in-water surveys are to have at least 1 *year* experience and participated in 10 different assignments as an assistant diver.

3 Diving ~~S~~supervisors are to have at least 2 *years* of experience as a diver in carrying out in-water surveys.

4 ROV operators carrying out in-water surveys are to have at least 1 *year* experience in carrying out in-water surveys by ROV.
5 ROV supervisors are to have at least 2 *years* of experience as a ROV operator in carrying out in-water surveys.

3.4 Equipment

3.4.1 Equipment

Sub-paragraph (7) has been amended as follows.

The supplier is to possess the equipment listed in the following **(1)** through **(7)**:
((1) to (6) are omitted.)
(7) ~~Remote Operated Vehicle~~ROV and adequate controls or programming for the ROV functions required, if applicable.

3.5 Demonstration Tests

3.5.1 Demonstration Tests

Sub-paragraph -2 has been amended as follows.

2 Where other means (*e.g.*, video ~~tapes~~data) are available which enable the Society to verify the in-water survey operations of suppliers in lieu of demonstration tests, the demonstration tests may be dispensed with.

Chapter 16 has been added as follows.

Chapter 16 FIRMS ENGAGED IN SURVEY USING REMOTE INSPECTION TECHNIQUES AS AN ALTERNATIVE MEANS FOR CLOSE-UP SURVEY OF THE STRUCTURE OF SHIPS AND MOBILE OFFSHORE UNITS

16.1 General

16.1.1 Application

1 This chapter applies to firms engaged in survey using remote inspection techniques as an alternative means for close-up survey of the structure of ships and mobile offshore units.

2 Firms carrying out in-water close-up survey by Remotely Operated Vehicles are to comply with the requirements in **Chapter 3** as well as the requirements in this Part.

16.1.2 Definition

1 "Close-up survey" is a survey where the details of structural components are within the close visual inspection range of the surveyor, i.e. preferably within reach of hand.

2 "Remote Inspection Techniques" is a means of survey that enables examination of any part of the structure without the need for direct physical access of the surveyor. Remote Inspection Techniques may include the use of:

(1) Unmanned Aerial Vehicles (UAV)
(2) Drones
(3) Unmanned robot arm
(4) Remotely Operated Vehicles
(5) Climbers
(6) Other means acceptable to the Society

16.2 Quality System

16.2.1 Work Procedures

1 Suppliers are to have documented work procedures and guidelines for how to plan, carry out and report inspections, how to handle/operate the equipment specified in **16.4** as well as the collection and storage of data.

2 Suppliers are to have documented work procedures, as required by **1.2.4**, containing at least the information specified in the following **(1)** through **(10)**:

(1) Requirements for preparation of inspection plans when UAV are part of the equipment flight plans shall be included;
(2) Operation of the remotely operated platforms;
(3) Operation of lighting;
(4) Calibration and operation of the data collection equipment;
(5) Two-way communication between the operator, platform, surveyor, other personnel such as support staff and the ship's officers and crew;
(6) Guidance of the operator to provide complete coverage of the structure to be inspected;
(7) Guidance for the maintenance of the remotely operated platforms, data capture and storage devices and display screens, as applicable;
(8) Requirements for the collection and validation of data;

(9) If data is to be stored, then requirements for location attribution (geo-tagging), validation and storage of data; and
(10) Requirements for the reporting of inspections, including the recording of damages and defects found during inspection and repair work.

16.3 Operators and Supervisor

16.3.1 Training Procedures

The documented training procedures specified in **1.2.2** are to at least include information on ways to acquire knowledge about the following items:
(1) Marine and/or offshore nomenclatures;
(2) The structural configuration of relevant ships types and mobile offshore units, including internal structure;
(3) The remote inspection equipment and its operation;
(4) Survey plans for examination of hull spaces of various configurations, including appropriate flight plans if using a UAV; and
(5) Thickness measurement and non-destructive examination in accordance with a recognized National or International Industrial NDE Standard when these are part of the service.

16.3.2 Qualifications

1 As for competence and experience, operators are to comply with the requirements specified in the following **(1)** and **(2)**:
(1) Operators are to be certified to a recognized national or international industrial standard; and
(2) Operators are to have at least 1 *year* experience and participated in 5 different assignments as an assistant carrying out inspection of ship's and/or mobile offshore unit's structure.

2 As for competence and experience, supervisors are to comply with the requirements specified in the following **(1)** and **(2)**:
(1) Supervisors are to be certified to a recognized national or international industrial standard; and
(2) Supervisors carrying out inspection of ship's and/or mobile offshore unit's structure are to have at least 2 *years* of experience as an operator.

16.4 Equipment

16.4.1 Equipment

The supplier is to possess the equipment listed in the following **(1)** through **(8)**:
(1) Remotely operated platform with data capture devices capable of operation within an enclosed space;
(2) Means of powering the platforms with sufficient capacity to complete the required inspections, including spare batteries if applicable;
(3) Data collection devices which may include cameras capable of capturing in high definition both video images and still images;
(4) Illumination equipment;
(5) High definition display screen with live high definition feed from inspection cameras when this is part of the remote inspection techniques;
(6) Means of communication;
(7) Data recording devices, as applicable; and
(8) Equipment for carrying out thickness gauging and/or non-destructive testing, as relevant to

the work to be performed when this is part of the service)

16.4.2 Records

The supplier is to possess the equipment listed in the following **(1)** through **(6)**:

(1) Records of training;
(2) Operator statutory and regulatory certificates and licenses;
(3) Equipment register for UAVs, robots, data collection devices, data analysis devices and any associated equipment necessary to perform inspections;
(4) Equipment maintenance manuals and records / logbook;
(5) Records of calibration; and
(6) UAV/Robot operation logbook.

16.5 Demonstration Tests

16.5.1 Demonstration Tests

1 Demonstration tests on actual ships are to be conducted in the presence of a Society surveyor to verify that the close-up surveys using remote inspection techniques as an alternative means for close-up survey specified in the documents submitted to the Society can be carried out.

2 Where other means (*e.g.*, video data) are available which enable the Society to verify the close-up survey operations of suppliers in lieu of demonstration tests, the demonstration tests may be dispensed with.

16.6 Reporting to the Society

16.6.1 Verification

The supplier is to have the Surveyor verification of each separate job, documented in the report by the attending Surveyor signature.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 January 2019.