RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER **No. 381-16-1402c** dated 10.06.2020

Re:

amendments to the Rules for Technical Supervision During Construction of Ships and Manufacture of Materials and Products for Ships, 2020, ND No. 2-020101-130-E

Item(s) of supervision:

testing laboratories

Entry-into-force date: **01.07.2020** Valid till: **-** Validity period extended till: **-**

Cancels / amends / adds Circular Letter No. **-** dated **-**

Number of pages: 1 + 4

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Part I "General Regulations for Technical Supervision"

Director General Konstantin G. Palnikov

Text of CL:

We hereby inform that the Rules for Technical Supervision During Construction of Ships and Manufacture of Materials and Products for Ships shall be amended as specified in the Appendices to the Circular Letter.

It is necessary to do the following:

1. Bring the content of the Circular Letter to the notice of the RS surveyors.
2. Apply the provisions of the Circular Letter during survey of testing laboratories carrying out non-destructive testing (NDT) by requests submitted on or after 01.07.2020.
3. Explain the content of the Circular Letter to the interested organizations and persons in the area of the RS Branch Offices' activity.

List of the amended and/or introduced paras/chapters/sections:

Part I: para 10.3.1

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Appendix 1 to Circular Letter
No. 381-16-1402c dated 10.06.2020

Information on amendments introduced by the Circular Letter
(for inclusion in the Revision History to the RS Publication)

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
1	Para 10.3.1	Para has been completely revised considering IACS UR W35	381-16-1402c of 10.06.2020	01.07.2020

RULES FOR TECHNICAL SUPERVISION DURING CONSTRUCTION OF SHIPS AND MANUFACTURE OF MATERIALS AND PRODUCTS FOR SHIPS, 2020

ND No. 2-020101-130-E

PART I. GENERAL REGULATIONS FOR TECHNICAL SUPERVISION

10 RECOGNITION OF TESTING LABORATORIES

Para 10.3.1 is replaced by the following text:

"10.3.1 Special requirements for testing laboratories engaged in penetrant testing (PT), radiographic testing (RT), ultrasonic testing (UT), magnetic particle testing (MT) of materials, products, weld quality (code 21001700).

10.3.1.1 Abbreviations.

For the purpose of this Chapter, the following abbreviations apply:

NDT	Non-destructive testing. Comprising, but not limited to the methods and techniques MT, PT, RT, RT-D, VT, UT, PAUT, TOFD, ET and/or ACFM.
MT	Magnetic particle testing.
PT	Penetrant testing.
RT	Radiographic testing.
RT-D	Digital radiography (several techniques within the method RT, e.g. computed radiography or direct radiography).
UT	Ultrasonic testing.
PAUT	Phased array ultrasonic testing (technique within the method UT).
TOFD	Time of flight diffraction (technique within the method UT).
ET	Electromagnetic testing (i.e. eddy current testing and/or alternating current field measurements [ACFM]).
VT	Visual testing.

10.3.1.2 Personnel.

Non-destructive testing (NDT) and quality assessment shall be performed by the specialists who have passed the appropriate training, have the proper qualification and practical experience in a particular NDT method which shall be documented.

The testing laboratory shall document that it has the competence and control needed to perform the specified services.

The testing laboratory is responsible for the qualification and preferably third party certification of its supervisors and operators to a recognised certification scheme based on ISO 9712:2012.

Personnel qualification to an employer based qualification scheme as e.g. SNT-TC-1A, 2016 or ANSI/ASNT CP-189, 2016 may be accepted if the testing laboratory's written practice is reviewed and found acceptable. The testing laboratory's written practice shall as a minimum, except for the impartiality requirements of a certification body and/or authorised body, comply with ISO 9712:2012.

The supervisors' and operators' certificates and competence shall comprise all industrial sectors and techniques being applied by the testing laboratory.

Level 3 personnel shall be certified by an accredited certification body.

10.3.1.2.1 Supervisor.

The testing laboratory shall have a supervisor or supervisors, responsible for the appropriate execution of NDT operations and for the professional standard of the operators and their equipment, including the professional administration of the working procedures.

The testing laboratory shall employ, on a full-time basis, at least one supervisor independently certified to Level 3 in the method(s) concerned as per the requirements of 10.3.1.2.

It is not permissible to appoint Level 3 personnel; they must be certified by an accredited certification body. It is recognised that a testing laboratory may not directly employ a Level 3 in all the stated methods practiced. In such cases, it is permissible to employ an external, independently certified, Level 3 in those methods not held by the full-time Level 3(s) of the testing laboratory.

The supervisor shall be directly involved in review and acceptance of NDT procedures, NDT reports, calibration of NDT equipment and tools. The supervisor shall on behalf of the testing laboratory re-evaluate the qualification of the operators annually.

10.3.1.2.2 Operators.

The operator carrying out the NDT and interpreting indications, shall as a minimum, be qualified and certified to Level 2 in the NDT method(s) concerned and as described in 10.3.1.2.

However, operators only undertaking the gathering of data using any NDT method and not performing data interpretation or data analysis may be qualified and certified as appropriate, at Level 1.

The operator shall have adequate knowledge of materials, weld, structures or components, NDT equipment and limitations that are sufficient to apply the relevant NDT method for each application appropriately.

10.3.1.3 Equipment and facilities.

If the testing laboratory hires equipment, such equipment shall have updated calibration records, and the operators shall be familiar with the specific equipment type prior to using it.

Under any circumstance, the testing laboratory shall possess sufficient equipment to carry out the services being a part of the NDT scope.

Where the equipment is of unique nature, the NDT operators shall be trained by competent personnel in the operation and use of the equipment before carrying out NDT using this equipment.

10.3.1.4 Files of the testing laboratory documents.

In addition to 10.2.3, the testing laboratory shall have the following documents:

.1 organization and management structure, including subsidiaries;

.2 information on the structure of the quality management system of the testing laboratory;

.3 Quality Manual and documented procedures covering the requirements given in 10.3.1.5;

.4 for companies with in-house certification of persons scheme, a written practice developed in accordance with a recognised standard or recommended practice;

.5 operational work procedures for each NDT method including selection of the NDT technique;

.6 training- and follow-up programmes for NDT operators including practical training;

.7 procedure for supervisor's authorisation of NDT operators;

.8 experience of the testing laboratory in the specific service area;

.9 a list of documented training and experience for NDT operators within the relevant service area, including qualifications and third party certification per ISO 9712:2012 based certification schemes;

.10 a guide for NDT operators to use equipment mentioned above;

.11 record formats for recording results of the services referred to in 10.3.1.6;

.12 information on other activities which may present a conflict of interest;

.13 record of customer claims and corrective actions;

.14 any legal proceedings against the company in the past/currently in the courts of law;

.15 instructions on performing assessment of the quality of welds taking into account the RS requirements.

10.3.1.4.1 The testing laboratory shall produce written procedures for the NDT being applied. These procedures shall be written, verified or approved by the testing laboratory having Level 3 personnel. Procedures shall define all relevant information relating to the inspection including defect evaluation against acceptance criteria in accordance with the RS rules. All NDT procedures and instructions shall be properly documented in such a way that the performed testing can be easily retraced and/or repeated at a later stage.

10.3.1.5 Quality management system.

The testing laboratory shall have a documented quality management system covering at least the following:

.1 work procedures for all tasks and operations, including the various NDT methods and NDT techniques for which the testing laboratory is involved;

.2 preparation, issuance, maintenance and control of documents;

.3 maintenance and calibration of the equipment;

.4 training programs for the NDT operators and the supervisors;

.5 maintenance of records for NDT operators' and the supervisors' training, qualification and certification;

.6 certification of NDT operators including re-validation and recertification;

.7 procedure for test of operators' visual acuity;

.8 supervision and verification of operation to ensure compliance with the NDT procedures;

.9 quality management of subsidiaries;

.10 job preparation;

.11 order reference system where each engagement is traceable to when, who and where the test was carried out;

.12 recording and reporting of information, including retention time of records;

.13 code of conduct for the testing laboratory's activities, especially the NDT activities;

.14 periodic review of work process procedures;

.15 corrective and preventive actions;

.16 feedback and continuous improvement;

.17 internal audits;

.18 the provision of accessibility to required codes, standards and procedures to assist NDT operators.

A documented quality system complying with the most current version of ISO/IEC 17020:2012 and including the above would be considered acceptable. The testing laboratory should satisfy the requirements of Type A or Type B inspection body, as described in ISO/IEC 17020:2012.

10.3.1.6 Reporting.

10.3.1.6.1 The testing laboratory shall have and maintain examination results logs.

10.3.1.6.2 A Statement (Test Report), in addition to the information specified in 10.2.4.1, and examination results logs shall contain:

.1 a reference to the RS rules or other normative document as agreed with RHO regarding the use of criteria for assessing the quality of welds at RT;

.2 a reference to normative documents regarding the use of criteria for assessing the quality of welds at UT, PT, and MT;

.3 thickness of components at UT and RT (refer to Part XIV "Welding" of the Rules for the Classification and Construction of Sea-Going Ships);

.4 description of defects in accordance with the applicable national or international standards.

10.3.1.6.3 Designation of checked lengths for duplicating radiographic examination shall correspond to the designation of the checked lengths.

10.3.1.7 Subcontractors.

The testing laboratory shall give information of agreements and arrangements if any part(s) of the services provided are subcontracted. The testing laboratory, in the following-up of subcontracts shall give emphasis to the quality management system of the subcontractor.

Subcontractors shall meet the same requirements placed on testing laboratories for any NDT performed.".