



GUIDANCE NOTES

GD 02-2019

ISClass

INTERNATIONAL SHIP CLASSIFICATION

GUIDELINES FOR LEVEL ASSESSMENT AND
CERTIFICATION OF NON-DESTRUCTIVE
TESTING PERSONNEL

2019

Effective from 1 Jan. 2019

CONTENTS

CHAPTER 1 GENERAL

- 1.1 Purpose
- 1.2 Application
- 1.3 Definitions
- 1.4 Abbreviations

CHAPTER 2 CERTIFICATION BODY AND RESPONSIBILITY

- 2.1 General requirements
- 2.2 Examination Management Organization
- 2.3 Examination center
- 2.4 Employer or work unit

CHAPTER 3 LEVELS AND TECHNICAL REQUIREMENTS

- 3.1 General requirements
- 3.2 Work scope of Level I personnel
- 3.3 Work scope of Level II personnel
- 3.4 Work scope of Level III personnel

CHAPTER 4 ELIGIBILITY

- 4.1 General requirements
- 4.2 Training experience
- 4.3 Education and industrial experience
- 4.4 Health and vision requirements

CHAPTER 5 LEVEL ASSESSMENT AND CERTIFICATION EXAMINATION

- 5.1 Examination subjects
- 5.2 Eligibility requirements
- 5.3 Conduct of examination
- 5.4 Re-examination
- 5.5 Reapplication for examination

CHAPTER 6 CERTIFICATION

- 6.1 Administration
- 6.2 Certificates
- 6.3 Validity
- 6.4 Renewal of certification
- 6.5 Recertification
- 6.6 Level III credit system certification
- 6.7 Equivalent certification

Appendix A Application Form for Level Assessment and Certification of NDT Personnel

Appendix B Level Certificate of Non-destructive Testing Personnel

Appendix C Structured Credit System for Level III Renewal / Recertification

Appendix D Detailed Regulations for Level Assessment and Certification of NDT Personnel

Appendix E Detailed Regulation for Evaluation of the Examination Center for Level Assessment and Certification Examination of NDT Personnel

CHAPTER 1 GENERAL

1.1 Purpose

1.1.1 The Guidelines for level assessment and Certification of Non-destructive Testing (NDT) Personnel (hereinafter referred to as “the Guidelines”) are specially developed by reference to the principles of ISO 9712-2012 due to the fact that proper and effective application of NDT for ensuring the repair and construction quality of ships, offshore installations and other metal structures depends on the technical levels and capabilities of the testing personnel.

1.1.2 Level assessment and certification specified in the Guidelines provides an attestation of general competence of NDT operators, but does not represent permission or decision of any interested party including an employer on whether such an operator can conduct practical operations.

1.2 Application

1.2.1 The Guidelines apply to level assessment and certification of personnel who perform and are responsible for NDT methods used for ships, offshore installations and other metal structures, such as radiographic, ultrasonic, magnetic particle, liquid penetrant, eddy current testing and visual inspection and voluntarily apply for level assessment and certification by ISC.

1.2.2 For level assessment and certification of other NDT methods which are not covered in the Guidelines, reference may be made to the Guidelines or a recognized standard acceptable to ISC.

1.2.3 The Guidelines are also applicable to level assessment and certification of technical levels for personnel who are engaged in safety supervision, survey, technical management, education, scientific research and other work in related to NDT.

1.3 Definitions

1.3.1 For the purpose of the Guidelines:

- (1) Level assessment: demonstration (examination and assessment) of physical attributes, knowledge, skill, training and experience required to properly perform NDT tasks.
- (2) Certification: a procedure to confirm that the assessment requirements for a method, level, etc. have been fulfilled, leading to the issuing of a certificate.
- (3) Certificate: a document issued under the provisions of the Guidelines, indicating that the named person has demonstrated the competence(s) defined on the certificate.
- (4) Examination Management Organization: an organization that is responsible for executing level assessment and certification examination of NDT personnel and other management work.
- (5) Examination center: A center which has been assessed by ISC as qualified to assist in carrying out level assessment and certification examination.
- (6) Employer or work unit: a legal entity for which the candidate works or employed.
- (7) Candidate: an individual applying for level assessment and certification who gains experience under the supervision of qualified NDT personnel.
- (8) NDT training: a process of instruction in theory and practice in the NDT method for which certification is applied, which takes the form of training courses according to an examination syllabus and/or training syllabus developed by the Examination Management Organization.
- (9) Industrial experience: a period during which the experience of the candidate gained, in the application of the specific NDT method as main work, including the testing experience of

application of the NDT method in materials, parts or scantlings, but excluding the time used for operation in training courses.

(10) Level assessment examination: an examination which assesses the general, specific and practical knowledge and the skill of the candidate.

(11) General examination: one of written examinations at Levels I and II, concerned with the basic principles of an NDT method.

(12) Specific examination: one of written examinations at Levels I and II, concerned with specific knowledge and skill needed in the application of an NDT method in the ship industry and offshore installations.

(13) Basic examination: one of written examinations at Level III, which demonstrates the candidate's knowledge of the materials science and processing technology and welding technology, the level assessment and certification system according to the Guidelines, and the basic principles of NDT methods as required for Level II.

(14) Main-method examination: one of written examinations at Level III, which demonstrates the candidate's general and specific knowledge, and the ability to prepare NDT procedures as applied in the ship industry.

(15) Practical examination: an assessment of practical skills, in which the candidate demonstrates familiarity with, and the ability to perform, the test.

(16) Test specimen: a sample used in practical examination, preferably representative of products typically tested in the applicable sector, which includes more than one defect (possibly including radiographs and data sets). It may either be an actual product or a special sample.

(17) NDT method: discipline applying a physical principle in non-destructive testing.

(18) NDT technique: specific way of utilizing an NDT method.

(19) NDT process card: an operating document describing an NDT method to be applied when testing a specific object.

(20) NDT procedure: a technical document describing an NDT method to be applied when non-destructively testing products.

(21) Significant interruption: absence or change of activity while the certificate holder practicing the duties corresponding to the level in the method and the level within the certified scope, for either a continuous period in excess of one year or more periods for a total time exceeding two years.

1.4 Abbreviations

1.4.1 The abbreviations adopted in the Guidelines are as follows:

(1) ISC: International Ship Classification.

(2) ISO: International Standardization Organization.

(3) NDT: Non-destructive Testing.

(4) RT: Radiographic Testing.

(5) UT: Ultrasonic Testing.

(6) MT: Magnetic Particle Testing.

(7) PT: Liquid Penetrant Testing.

(8) ET: eddy current testing.

(9) VT: Visual Testing.

(10) UWVT: Underwater Visual Testing.

(11) UWMT: Underwater Magnetic Particle Testing.

- (12) UMUT: Underwater Ultrasonic Testing.
- (13) TKY-UT: Ultrasonic Testing for T-, K- and Y-shaped Tube Connection.
- (14) PAUT: Phase Array Ultrasonic Testing.
- (15) TOFD: Time of Flight Diffraction.

CHAPTER 2 CERTIFICATION BODY AND RESPONSIBILITY

2.1 General requirements

2.1.1 Level assessment and certification of NDT personnel in accordance with the Guidelines is organized by relevant departments of ISC and detailed implementation procedures and requirements will be released separately.

2.2 Examination Management Organization is:

- (1) responsible for detailed work related to level assessment and certification of NDT personnel in accordance with the provisions of the Guidelines;
- (2) responsible for developing and revising the examination/training syllabus and specifications of test specimen and for fabricating of specimen;
- (3) responsible for establishing and maintaining the question bank and specimen range, and organizing and supervising the level assessment examination;
- (4) responsible for establishing or evaluating the examination center, and monitoring and inspecting it on a regular basis;
- (5) responsible for and supervises the security of examination materials (including question bank, specimen range, standard answers and examination papers, etc.);
- (6) responsible for issuing certificates and keeping relevant files.

2.3 Examination center

2.3.1 The examination center is responsible for the preliminary review of the qualification of candidates.

2.3.2 The examination center is responsible for making preparation and providing assistance for the examination under the charge of the examination team leader assigned by the Examination Management Organization.

2.3.3 The examination center is to be subject to the supervision and inspection by the Examination Management Organization, and to provide assistance to the personnel designated or entrusted by the Examination Management Organization during site examination and supervision .

2.3.4 The examination center is to maintain valid records as required by the Examination Management Organization.

2.4 Employer or work unit

2.4.1 The employer or work unit is, under the monitoring by a certified person,

- (1) fully responsible for the validity of NDT operations carried out by the employed certified personnel and their results;
- (2) to issue or verify evidence of continuity in the application of the NDT method without significant interruption and accident for personnel applying for renewal of certificates or recertification; and
- (3) to provide evidence that the certified personnel are physically fit and with satisfactory eyesight and provide evidence of his industrial experience.

2.4.2 If a candidate is a self-employed individual or recommended by himself, he is to assume all responsibilities ascribed to the employer.

CHAPTER 3 LEVELS AND TECHNICAL REQUIREMENTS

3.1 General requirements

3.1.1 Personnel engaged in NDT operation are divided into 11 categories as: radiographic testing (RT), ultrasonic testing (UT), magnetic particle testing (MT), liquid penetrant testing (PT), eddy current testing (ET), visual testing (VT), underwater visual testing (UWVT), underwater magnetic particle testing (UWMT), underwater ultrasonic testing (UWUT), phase array ultrasonic testing (PAUT) and time of flight diffraction (TOFD).

3.1.2 NDT personnel certified by each testing method are classified in accordance with their levels as Level I (primary), Level II (intermediate) and Level III (advanced). Persons who have not been certified are considered as trainees, who are not to perform the testing independently.

3.1.3 Certified NDT personnel are to perform the testing related to the certification category with the confirmation from the employer.

3.2 Work scope of Level I personnel

3.2.1 An individual certified to Level I may carry out the following tasks according to the NDT instructions and under the supervision of Level II or Level III personnel within the scope defined on the certificate:

- (1) to adjust and operate NDT equipment;
- (2) to perform NDT tests;
- (3) to record test results; and
- (4) to report test results.

3.2.2 The personnel certified to Level I are not responsible for the selection of test method or technique, nor is he responsible for providing evaluation of the test results.

3.3 Work scope of Level II personnel

3.3.1 An individual certified to Level II may carry out the following tasks within the scope defined on the certificate:

- (1) to select NDT technique for the testing method to be used;
- (2) to define limitations of application of the testing method;
- (3) to incorporate NDT codes, standards, specifications and procedures into NDT instructions according to the actual working conditions;
- (4) to adjust and calibrate equipment settings;
- (5) to perform NDT tests;
- (6) to interpret and evaluate test results according to applicable codes, standards, specifications or procedures;
- (7) to prepare NDT instructions;
- (8) to carry out and supervise tasks performed by and provide guidance for personnel at or below Level II;
- (9) to issue and review the NDT report.

3.4 Work scope of Level III personnel

3.4.1 An individual certified to Level III may carry out the following tasks within the scope defined on the certificate:

- (1) to assume the responsibility for a test facility or staff;
- (2) to develop or review and verify the NDT procedures and the processes in the NDT

Instructions;

- (3) to interpret NDT codes, standards, specifications and procedures;
- (4) to determine the particular NDT methods, procedures and instructions to be used;
- (5) to carry out and supervise all tasks at all levels;
- (6) to provide guidance for personnel at all levels.

CHAPTER 4 ELIGIBILITY

4.1 General requirements

4.1.1 A candidate applying for level assessment and certification of NDT personnel is to have a physical condition and educational background fit for the working conditions, be trained as required and have certain practical industrial experience, and hold a lower level certificate obtained according to the Guidelines or other equivalent certificate (except for the candidate for Level I certification).

Notes: ① Candidates graduated from colleges of science and engineering (as B.E./B.S.) or with NDT technical college degree and higher, may directly apply for Level II certification.

② A candidate holding a valid NDT certificate recognized by the State may apply for the examination for the same level and same testing method subject to confirmation by the Examination Management Organization.

4.2 Training experience

4.2.1 A candidate applying for Level I, Level II or Level III certification for the first time may attend group training. Those candidates who do not attend group training are to meet the requirements of 4.2.3.

4.2.2 Training is to be conducted in accordance with the training syllabus issued.

4.2.3 All candidates are to provide documentary evidence, in a form acceptable to the Examination Management Organization, that training in the method for which the certification is applied has been satisfactorily completed.

4.2.4 For candidates applying for Level III certification, their training prior to level assessment may be carried out in an appropriate way according to the actual conditions: e.g. by attending training courses, seminars, discussions for studying professional books, periodicals and other specialized printed or electronic materials. Regardless of the manner of training, the candidates are to submit documentary evidence of appropriate training in a form acceptable to the Examination Management Organization.

4.3 Education and industrial experience

4.3.1 Candidates applying for NDT level assessment are to have a certain degree of education.

4.3.2 The minimum duration of experience of candidates is to be in compliance with the requirements of ISC.

4.3.3 Candidates for Level III certification are to hold a valid Level II certificate of the testing method he applied for.

4.3.4 Industrial experience is to be acquired prior to the level assessment examination. Documentary evidence of experience is to be confirmed by the employer and submitted to the Examination Management Organization.

4.4 Health and vision requirements

4.4.1 Candidates are to be healthy, and fit for the work in which he is engaged.

4.4.2 The visual acuity or the corrected visual acuity of a candidate is to comply with the minimum requirements for the work he is engaged in.

4.4.3 Color vision is to be sufficient that the candidate can distinguish contrast between the colors used in the NDT method concerned.

4.4.4 A candidate for underwater NDT certification is also to have a currently valid certificate for diver.

CHAPTER 5 LEVEL ASSESSMENT AND CERTIFICATION EXAMINATION

5.1 Examination subjects

5.1.1 The level assessment and certification examination subjects for Levels I and II are given in Table 5.1.1.

Examination subject - Levels I and II **Table 5.1.1**

Level	General examination	Specific examination	Practical examination
I	Basic principles	Relevant standards	Commissioning of apparatus, operation recording
II	Basic principles	Relevant standard, NTD process card	Commissioning of apparatus, operation recording, test report

5.1.2 The level assessment examination subjects for Level III are given in Table 5.1.2.

Examination subject - Level III **Table 5.1.2**

Level	Basic examination	Main-method examination	Practical examination	Technical presentation
III	Basic principles, relevant general knowledge	Standard for Level III knowledge related to the method applied for, NDT procedure	Commissioning of apparatus, operation recording, test report	Technical summary or essay

5.2 Eligibility requirements

5.2.1 For levels I and II, the score for each general examination and specific examination should at least be 70, and the score for practical examination should at least be 80.

5.2.2 For level III, the score for basic examination should at least be 70, for each main method examination should at least be 70, for practical examination should at least be 80, and for technical presentation should at least be 3.5.

5.3 Conduct of examination

5.3.1 The examination is normally to be conducted in the examination center.

5.3.2 The examination is conducted by the examination team, which is assigned by the Examination Management Organization.

5.4 Re-examination

5.4.1 A candidate who fails to pass Level I and Level II examination may apply for re-examination in the failed subject(s), provided that the re-examination takes place not sooner than one month, and nor later than one year after the original examination. A candidate who fails to pass Level III examination may apply for re-examination twice in the failed subject(s), provided that the re-examination takes place not sooner than one month, and nor later than five years after the original examination.

5.4.2 A candidate failing all permitted re-examination is to apply for and — if accepted — to take the examination in accordance with the procedure established for new candidates.

5.5 Reapplication for examination

5.5.1 Any excluded candidate who, during the course of the examination, does not abide by the examination rules may not apply for a further examination until for a period of at least 12 months.

5.5.2 If the level certificate is expired for more than six months, the certificate holder is to apply

for the examination in accordance with the procedure established for new candidates.

CHAPTER 6 CERTIFICATION

6.1 Administration

A candidate fulfilling all conditions for certification is to be issued with a certificate, corresponding wallet card and experience manual by ISC.

6.2 Certificates

The certificates are uniformly made by ISC and are to include:

- (1) full name, gender and identification number of the certificate holder;
- (2) work unit of the certificate holder;
- (3) certified NDT method(s);
- (4) level of certification;
- (5) date on which certification is issued;
- (6) date on which certification expires;
- (7) certificate number;
- (8) photograph of the certificate holder;
- (9) name of the certification body;
- (10) stamp of the certification body (to be affixed on the photograph).

6.3 Validity

6.3.1 The period of validity of certificates for NDT personnel of all levels is five years.

6.3.2 Certification is to be withdrawn in either of the following cases and reapplication for examination is not allowed for the following five years:

- (1) if there is evidence of unethical behavior;
- (2) if the work engaged in is beyond the category of the certificate or the level specified;
- (3) if a significant accident takes place due to the individual's negligence and the individual is not fit for NDT work;
- (4) if a significant interruption takes place in the individual's work;
- (5) if there is any evidence to demonstrate that the individual fails to meet the visual acuity and health requirements for NDT work.

6.4 Renewal of certification

6.4.1 Prior to expiry of the first period of validity, certification may be renewed for a new period of same duration after being satisfactorily reviewed, provided that the certificate holder submits to the Examination Management Organization six months before the date of expiry of the certificate the documentary evidence of:

- (1) satisfactorily fulfilling, during the preceding 12 months, the vision and health requirements;
- (2) no accident or significant technical failure within the period of validity; and
- (3) continued satisfactory work activity, relevant to the certification, without significant interruption.

6.4.2 The individual applying for renewal certification is to be trained on renewal.

6.4.3 Practical examination is to be passed for the renewal of Levels I and II certification. The Relevant standards and Procedures in the main-method examination and essay presentation are to be passed for the renewal of Level III certification.

6.4.4 A candidate who fails the above examinations may be re-examined in the failed part(s), provided that the re-examination takes place not sooner than one month but not later than 12 months after the original examination. A candidate failing the re-examination is to take the examination in accordance with 5.1 of the Guidelines.

6.5 Recertification

6.5.1 Prior to expiry of the second period of validity, a new period of validity for the same duration may be granted, provided that the certified individual meets the requirements in 6.4.1(1), 6.4.1(2) and 6.4.1(3) for renewal and the following conditions, as applicable.

6.5.2 The individual applying for recertification is to be trained for recertification.

6.5.3 Recertification examination

The Levels I and II personnel for recertification are to successfully complete necessary examinations. Practical examination is to be passed for Level I. Specific and practical examinations are to be passed for Level II. Relevant standards, procedures examination, practical examination and essay presentation are to be passed for Level III.

6.5.4 A candidate who fails the recertification examination may be re-examined in the failed part(s), provided that the re-examination takes place not sooner than one month but not later than 12 months after the original examination. A candidate failing the re-examination is to take the examination in accordance with 5.1 of the Guidelines.

6.6 Level III credit system certification

6.6.1 For a Level III holder applying for renewal or recertification of certificates, in addition to the practices given in 6.4.3 and 6.5.3, he may also choose credit system certification. If the credit system certification is chosen, evidential documents or practical evidences from the employer are required to be provided, and a written statement of approval from the employer is to be provided to the Examination Management Organization.

6.6.2 Certification is to be granted, where the credit system is chosen, in accordance with Appendix C. An individual who does not meet the requirements of the credit system is to take the examination in accordance with 6.4.3 and 6.5.3 of the Guidelines.

6.6.3 In the event of failure by means of examination, application for recertification by means of credit system is generally not to be considered.

6.7 Equivalent certification

6.7.1 For an individual holding a valid NDT certificate which is recognized by the State or certified in accordance with equivalent international standards acceptable by ISC, a ISC NDT certificate may, after equivalent evaluation carried out by ISC, be issued directly or after exemption of corresponding equivalent certification condition.

6.7.2 Equivalent evaluation is to be directly handled by the Examination Management Organization. The examination to issue ISC certificate is to be carried out by an examination center entrusted by the Examination Management Organization.

6.7.3 For a certificate meeting the replacement condition, a ISC NDT certificate with a period of validity not longer than that of the original certificate may be issued.

Application Form for Level Assessment and Certification of NDT Personnel

(Back page)

NDT related working experiences		
From	to	Employer
Training demand: yes <input type="checkbox"/> no <input type="checkbox"/>		
Employer's recommendation: <p style="text-align: center;">The candidate has been formally employed. The information above is true and the application is approved.</p> <p style="text-align: right; margin-right: 100px;">Signature/seal:</p> <p style="text-align: right; margin-right: 100px;">Date:</p>		
Comments from preliminary review <p style="text-align: right; margin-right: 50px;">Signature/seal:</p> <p style="text-align: right; margin-right: 50px;">Date:</p>	Comments from review: <p style="text-align: right; margin-right: 50px;">Signature/seal:</p> <p style="text-align: right; margin-right: 50px;">Date:</p>	

Note: Type of Application:

- (1) initial certification
- (2) renewal of certificate
- (3) recertification



艾氏船级社
International Ship Classification
无损检测人员水平认证证书
Level Certificate of Non-destructive Testing Personnel

本证书依据中国船级社《无损检测人员水平鉴定与认证指南》签发
This certificate is issued under the provisions of Rules for Level Assessment and Certification
of Non-Destructive Testing Personnel

证书编号:

Certificate No:

姓名 Name:	性别: Sex:	照片
身份证号: ID No.:		
工作单位: Employer:		
<p>兹证明本证书持有人已通过艾氏船级社无损检测人员水平认证，具备从事本证书规定范围内的无损检测工作的能力。</p> <p>It is issued to certify that the holder has been qualified by International Ship Classification and is able to undertake non-destructive testing of the category specified in the certificate.</p>		
检测方法: Category:	检测等级: Level:	
本证书有效期至: The certificate is valid until: 发证日期: Issued on: 发证机构(章): 艾氏船级社 Institution of Issue: International Ship Classification		

1、本社进行的无损检测人员水平认证，并不能替代证书持有人所在的工作单位所进行的质量控制活动。本证书的内容并不能减轻船舶设计方、建造方、拥有方、制造方、销售方、供应方、修理方、营运方，以及其他方应承担的任何责任；

The NDT inspector's level assessment test carried out by this society cannot replace the action of quality control of the Certificate holder. The contents of this certificate do not diminish any liability of the designers, builders, owners, manufacturers, sellers, suppliers, repairers, operators and other parties.

2、本证书仅限证书持有人向本社、国家主管机关和证书持有人所在工作单位证明其具备从事本证书规定范围内无损检测工作的资质。本证书的内容不构成本社对国家主管机关、证书持有人和其所在工作单位以外的任何机构和人员的任何保证。国家主管机关、证书持有人和其所在工作单位以外的任何机构和人员因信赖本证书的内容，导致的一切损失，本社概不负责；

This certificate is limited to the certificate holder to prove to this society, the state administration and his/her employer that he/she is qualified to undertake the NDT inspection specified in this certificate. The contents of this certificate do not constitute any guarantee of this society to any organization or personnel other than the state administration, the certificate holder and his/her employer. This society will not be liable for any loss of any results of trusting the contents of this certificate by any organization or personnel other than the state administration, the certificate holder and his/her employer.

3、本证书持有人和其所在单位应对其向本社提供的信息、文件和证书的真实性负责

The certificate holder and his/her employer are responsible for the authenticity of the information, documents and certificates supplied to this society.

Appendix C (Guidance)
Structured Credit System for Level III Renewal / Recertification

In this system, a Level III candidate applying for renewal/recertification gains credit for participation in various NDT activities shown below within five years prior to applying for renewal/recertification. Limits are placed on the maximum number of points that can be gained in each year and in any activity over the five years, to ensure an even spread of activities.

Item	Activity	Points accorded for each item	Maximum points per year per item	Maximum points per five-year period per item
1	Attendance at NDT seminars, symposia, conferences and/or courses on NDT sciences and technologies	1	3	8
2.1	Attendance at international and national standardization committees	1	3	8
2.2	Participation in level assessment and certification of NDT personnel	1	3	8
3.1	Attendance at sessions of other NDT committees	1	3	8
3.2	Convenorship of sessions of other NDT committees	1	3	8
4.1	Attendance at sessions of NDT related working groups	1	5	15
4.2	Convenorship of and participation in NDT related working groups	1	5	15
5.1	NDT related technical/scientific contributions or publications	3	6	20
5.2	NDT related research work published	3	6	15
5.3	NDT research activity	3	6	15
6	NDT technical training instructor (per 2 h) and/or NDT examiner (per examination)	1	10	30
7	Professional activity	—	—	—
7.1	Responsibility for facilities in NDT examination center (for each full year)	10	10	40
7.2	Dealing with disputes from examination	1	5	15
7.3	Professional development for an examination component	1	5	15

To be eligible for renewal or recertification, a minimum of 70 points are to be accrued during the five-year validity of the certificate, while a maximum of 25 points per year are to be accepted, of which:

- the highest points of item 1 ~ item 4: 20 points;
- the highest points of item 5 ~ item 6: 30 points;
- the highest points of item 7: 50 points.

In addition to the above points, the candidate is to submit evidence of satisfying the criteria as follows:

- agenda and list of attendees for the meetings under item 1 ~ item 4;
- a brief description of NDT related technical/scientific contributions or publications and the list of authors under item 5, if there is more than one author, the first author is to define points for the others;
- a summary as a training instructor and/or examiner under item 6; and
- for each certificate, evidence of work activity per year under item 7.

Appendix D

Detailed Regulations for Level Assessment and Certification of NDT Personnel

1.1 Scope of application

1.1.1 This Chapter applies to level assessment and certification of NDT personnel intended to be carried out by ISC according to the Guidelines for Level Assessment and Certification of NDT Personnel.

1.2 Definitions and abbreviations

Definitions and abbreviations in this Chapter are the same as that in the Guidelines for Level Assessment and Certification of NDT Personnel.

1.3 Application

1.3.1 General requirements

1.3.1.1 For NDT personnel applying for level assessment and certification, the following documents are to be provided:

- (1) documents meeting the training requirements as specified in 1.3.2;
- (2) documents meeting the requirements for education and industrial experience as specified in 1.3.3;
- (3) documents meeting the health and vision requirements as specified in 1.3.4.

1.3.1.2 An application for level assessment and certification of NDT personnel is to be submitted to ISC by the employer. ISC does not accept an application sent in the name of any individual except that he is self-employed.

1.3.1.3 A candidate holding a valid NDT certificate recognized by the State may apply for the examination for the same level and same testing method subject to confirmation by the Examination Management Organization.

1.3.1.4 A candidate applying for level assessment and certification of NDT personnel is to hold a lower level certificate obtained according to the Detailed Regulations or other equivalent certificate (except for a candidate for Level I certification).

1.3.1.5 A candidate for underwater NDT certification is also to have a currently valid certificate for diver.

1.3.2 Training requirements

1.3.2.1 A candidate applying for Level I, Level II or Level III certification for the first time may attend group training. Those candidates who do not attend group training are to meet the requirements of 1.3.2.3.

1.3.2.2 Training is to be conducted in accordance with the training syllabus issued.

1.3.2.3 All candidates are to provide documentary evidence, in a form acceptable to the Examination Management Organization, that training in the method for which the certification is applied has been satisfactorily completed. The minimum duration of training undertaken by Level I and Level II personnel is given in Table 1.3.2.3.

Minimum training requirements for total hours (h)

Table 1.3.2.3

NDT method	RT	UT	MT	PT	ET	VT	UWVT	UWMT	UWUT	TKY-UT	TOFD	PAUT
Level I	60	60	40	40	40	24	24+20	30+20	40+24	----	40	80
Level II	120	120	80	80	80	48	48+30	80+30	120+40	80+80	80	104
Level III	80	80	60	60	60	-	-	60+35	80+50	----	120	126

Note: ① Training hours include both theory and practical courses.

② In the table, the training hours for Level II have already included the Level I training hours. The practical operation time of candidates for Level I and Level II certification is not to be less than 40 % of the total training hours.

③ The training hours for underwater NDT method or TKY-UT method are that for related land-based method plus the specific training hours for underwater or TKY-UT method.

1.3.2.4 For candidates applying for Level III certification, their training prior to level assessment may be carried out in an appropriate way according to the actual conditions: e.g. by attending training courses, seminars, discussions for studying professional books, periodicals and other specialized printed or electronic materials. Regardless of the manner of training, the candidates are to submit documentary evidence of appropriate training in a form acceptable to the Examination Management Organization.

1.3.3 Education and industrial experience

1.3.3.1 Candidates applying for NDT level assessment are to have a certain degree of education. Candidates for Level I and Level II certification are to have an education of high school and higher (or equivalent education) while for Level III certification are to have an education of college and higher (or equivalent education).

1.3.3.2 Candidates graduated from colleges of science and engineering (as B.E./B.S.) or with NDT technical college degree and higher, may provide direct application for Level II certification.

1.3.3.3 The minimum duration of experience of candidates for NDT certification is to be in compliance with the requirements of Table 1.3.3.3.

Requirements for industrial experience of candidates for Level I and Level II certification (in months)

Table 1.3.3.3

Testing method	RT, UT, ET		TOFD		PAUT		MT, PT, VT		UWVT, UWMT		UWUT	
	I	II	I	II	I	II	I	II	I	II	I	II
Industrial experience	3	12 (inclusive of Level I)	3	4 (inclusive of Level I)	3	6 (inclusive of Level I)	1	4 (inclusive of Level I)	12	36 (inclusive of Level I)	24	60 (inclusive of Level I)

Notes: ① The industrial experience duration in the Table is the cumulative total of the actual working hours, which may be converted based on 40 h/week or 175 h/month.

② The industrial experience duration required for a candidate for Level I certification is the working experience duration under the instruction of Level II personnel or that related to NDT. For Level II certification, the industrial experience is the work performed as Level I.

③ Candidates for TKY-UT, TOFD and PAUT certification are to acquire UT certificate at related level at first and work with a UT certificate for more than 18 months.

④ If the candidate is engaged in two or more of the NDT methods covered by the Guidelines, the total required experience can be reduced as follows:

- two testing methods, reduction of total required time by 25 %;
- three testing methods, reduction of total required time by 33 %;
- four or more testing methods, reduction of total time by 50 %.

In all cases, the candidate is to be required to show that, for each of the testing methods which he applies for certification, he has at least 50% of the time required in the Table, and the experience required is never to be less than one month in duration.

1.3.3.4 The minimum duration of industrial experience related to the formal education of candidate for Level III certification is to be in compliance with the requirements of Table 1.3.3.4.

Minimum duration of industrial experience related to the formal education of candidates for Level III certification (in months) **Table 1.3.3.4**

Education	Bachelor degree of engineering/Bachelor degree of science and higher	Technical college
Industrial experience (land-based)	36	48
Industrial experience (underwater)	24	48

Note: ① For Level III certification, the industrial experience is work performed as Level II.

② A reduction of up to 25 % in the industrial experience as required may be accepted for candidates who are college or junior college graduates majoring in NDT.

1.3.3.5 Industrial experience is to be acquired prior to the level assessment examination. Documentary evidence of experience is to be confirmed by the employer and submitted to the Examination Management Organization.

1.3.4 Health and vision requirements

1.3.4.1 Candidates are to be physical healthy and fit for the work in which he is engaged.

1.3.4.2 The visual acuity or the corrected visual acuity of a candidate is to comply with the minimum requirements for the work he is engaged in. Far-vision acuity is not to be less than 4.9 (0.8) of the eye chart, with at least one eye, either corrected or uncorrected. Near-vision acuity is to permit reading a minimum symbol of Times Roman N4.5 or equivalent letters (the vertical height of letter for a new Times Roman N4.5 is: 1/72in or 0.3528mm) at not less than 30 cm with one or both eyes, either corrected or uncorrected.

1.3.4.3 Color vision is to be sufficient that the candidate can distinguish contrast between the colors used in the NDT method concerned.

1.4 Examination

1.4.1 Examination subjects

1.4.1.1 The examination subjects for Levels I, II and III are given in Table 1.4.1.1(1) and Table 1.4.1.1(2).

Examination subject - Levels I and II **Table 1.4.1.1(1)**

Level	General examination	Specific examination	Practical examination
I	Basic principles	Relevant standards	Commissioning of apparatus, operation recording
II	Basic principles	Relevant standard, NDT process card	Commissioning of apparatus, operation recording, test report

Examination subject - Level III **Table 1.4.1.1(2)**

Level	Basic examination	Main-method examination	Practical examination	Technical presentation
III	Basic principles, relevant general knowledge	Level III knowledge related to the method applied for, relevant standards, NDT procedure	Commissioning of apparatus, operation recording, test report	Technical summary or essay

1.4.2 Examination forms and requirements

1.4.2.1 Forms and requirements for Level I examination

- (1) The subjects include general examination, specific examination and practical examination.
- (2) General examination includes basic knowledge of the NDT method, including physical principles, equipment and materials, testing technique and application, etc.
- (3) Specific examination includes the basic knowledge related to the codes, standards, rules and NDT procedures which may be used for implementation of NDT tasks.
- (4) Examination for practical operation includes testing of the specimen in accordance with the specified NDT process card.
- (5) Form and basic requirements for Level I examination are shown in Table 1.4.2.1.

Form and basic requirements for Level I examination **Table 1.4.2.1**

Subject	Form	Question type	Number of questions	Remark
General examination	Written examination, close-book	Multiple-choice(single selection), calculation, Q & A	≥ 40	Selected from question bank
Specific examination	Written examination, open-book	Multiple-choice(single selection), true or false, calculation, Q & A	≥ 30	
Practical examination	Operation	Practical specimen	1 or 2	Selected from specimen range

1.4.2.2 Forms and requirements for Level II examination

- (1) The subjects include general examination, specific examination and practical examination.
- (2) General examination includes basic knowledge of the method, including physical principles, equipment and materials, testing technique and application, etc.
- (3) Specific examination includes preliminary understanding and application of the codes, standards, rules and the NDT procedures which may be used for implementation of NDT tasks, of which the procedure includes the development of a process card for a general specimen in accordance with the relevant standards.
- (4) Examination for practical operation includes independent testing of the specimen (for radiographic testing, analysis of the photo is to be additionally included; for ultrasonic testing, testing of forged and welded pieces are to be additionally included; for PAUT and TOFD, independent data interpretation is to be additionally included).
- (5) Form and basic requirements for Level II examination are shown in Table 1.4.2.2.

Form and basic requirements for Level II examination **Table 1.4.2.2**

Subject	Form	Type of question	Number of questions	Remark
General examination	Written examination, close-book	Multiple-choice(single selection), true or false, Q & A, calculation	≥ 40	Selected from question bank
Specific examination				
(1) Relevant standards	Written examination, open-book	Multiple-choice(single selection), true or false, Q & A	≥ 30	
(2) Procedures	Written examination, open-book	Process card, Q & A	≥ 4	
Practical examination*	Operation	Practical specimen	1 or 2	Selected from specimen range

1.4.2.3 Forms and requirements for Level III examination

- (1) The subjects include basic examination, main-method examination, practical examination and technical presentation.

(2) Basic examination includes general knowledge of materials science, technology, defects and four methods as required for Level II (including at least the knowledge of the method applied for and one volumetric method (e.g. RT, UT)), as well as the knowledge on level assessment and certification system in the Detailed Regulations. After passing the examination, the examination results are valid within 5 years.

(3) Main-method examination includes Level III knowledge in relation with the method applied for, standards and procedures, of which:

(4) Standards examination includes comprehensive understanding and application of the codes, standards, rules and the NDT procedures which may be used while implementing NDT tasks.

(5) Procedure examination includes preparing NDT procedures for the method which is applied for.

(6) Practical examination includes independent testing of the specimen (for radiographic testing, analysis of the photo is to be additionally included; for ultrasonic testing, testing of forged and welded pieces are to be additionally included; for PAUT and TOFD, independent data interpretation is to be additionally included).

(7) Technical presentation is to test the comprehensive ability of candidates to apply basic principles and knowledge and their experience accumulated, etc.

(8) Form and basic requirements for Level III examination are shown in Table 1.4.2.3.

Form and basic requirements for Level III examination

Table 1.4.2.3

Subject	Form	Question type	Number of questions	Remark
Basic examination				From question bank
(1) Knowledge of material science, technology and defects	Written examination, close-book	Multiple-choice(single selection)	≥ 25	
(2) Level assessment and certification system	Written examination, close-book	Multiple-choice(single selection)	≥ 10	
(3) Knowledge of four NDT methods as required for Level II	Written examination, close-book	Multiple-choice(single selection)	15 for each testing method (total 60)	
Main-method examination				
(1) Level III knowledge	Written examination, close-book	Multiple-choice(single selection), true or false, Q & A, calculation	≥ 30	
(2) Relevant standards	Written examination, open-book	Multiple-choice(single selection), true or false, Q & A, calculation	≥ 20	
(3) Procedures	Written examination, open-book	Process card, Q & A	≥ 4	
Practical examination	Operation	Practical specimen	1 or 2	Selected from specimen range
Technical presentation	Essay or technical summary, oral examination	Q & A	≥ 4	

1.4.3 Conduct of examinations

1.4.3.1 The examination is normally to be conducted in the examination center. Where the

examination is conducted at the employer's location, the examination is to be witnessed and supervised by the representative authorized by the Examination Management Organization.

1.4.3.2 Prior to commencement of the examination, the candidate is to present to the examiner or invigilator valid proof of identification and of admission to the exam.

1.4.3.3 Any candidate who, during the course of the examination, does not abide by the examination rules or who perpetrates, or is an accessory to, fraudulent conduct is to be excluded from further examinations for a period of one year.

1.4.3.4 The examination is to be implemented by an examination team, conducted by the leader of the team and invigilated by at least two examiners.

1.4.3.5 The examination team is to be selected and designated by the Examination Management Organization. The leader of the team and examiner(s) are not to be permitted to examine any candidate that they have trained for the examination, or who has the same employer or work unit as the candidate.

1.4.3.6 At least one of the examiners for Level I and Level II examination is to hold ISC certificate of Level III on the related method or to be the expert designated by the Examination Management Organization.

1.4.3.7 At least two of the examiners for Level III examination are to hold ISC certificate of Level III on the related method or to be the experts designated by the Examination Management Organization.

1.4.3.8 A candidate for a practical examination may use his own NDT apparatus.

1.4.3.9 The examiner is to check the reliability of the apparatus. Any apparatus or components found unreliable or could not be used during the examination is to be replaced.

1.4.4 Examination grading

1.4.4.1 Examiners are to be responsible for grading the examination. The grading is to be done separately by each examiner, then the results are to be collected at the presence of all examiners and the final results of the examination are to be confirmed by the leader of the examination team.

1.4.4.2 Eligibility requirements for Level I and Level II examination are given in Table 1.4.4.2.

Eligibility requirements for Level I and Level II examinations Table 1.4.4.2

Subject \ Level	I	II
General examination	≥ 70	≥ 70
Specific examination		
(1) Relevant standards	≥ 70	≥ 70
(2) Procedures		≥ 70
Practical examination	≥ 80	≥ 80

1.4.4.3 Eligibility requirements for Level III examination are given in Table 1.4.4.3.

Eligibility requirements for Level III examination Table 1.4.4.3

Subject \ Level	III
Basic examination	≥ 70
Main-method examination	
(1) Knowledge of Level III	≥ 70
(2) Relevant standards	≥ 70
(3) Procedures	≥ 70
Practical examination	≥ 80
Technical presentation	≥ 3.5

1.4.5 Re-examination

1.4.5.1 A candidate who fails to pass Level I and Level II exam may apply for re-examination in the failed subject(s), provided that the re-examination takes place not sooner than one month, and nor later than one year after the original examination.

1.4.5.2 A candidate who fails to pass Level III exam may apply for re-examination twice in the failed subject(s), provided that the re-examination takes place not sooner than one month, and nor later than five years after the original examination.

1.4.5.3 A candidate failing all permitted re-examination is to apply for and — if accepted — to take the examination in accordance with the procedure established for new candidates.

1.4.6 Reapplication for examination

1.4.6.1 Any excluded candidate who, during the course of the examination, does not abide by the examination rules may not apply for a further examination until for a period of at least 12 months.

1.5 Certificate maintenance

1.5.1 A candidate passing the examination and fulfilling all conditions for certification is to be issued with a certificate, corresponding wallet card and experience manual with the period of validity of 5 years by ISC.

1.5.2 Renewal

1.5.2.1 Prior to expiry of the first period of validity of initial certificate or renewal certificate, certification may be renewed for a new period of same duration after being satisfactorily reviewed, provided that the certificate holder submits to ISC six months before the date of expiry of the certificate with the documentary evidence of:

- (1) satisfactorily fulfilling, during the preceding 12 months, the vision and health requirements;
- (2) no accident or significant technical failure within the period of validity; and
- (3) continued satisfactory work activity, without absence or change of activity for either a continuous period in excess of one year or more periods for a total time exceeding two years.

1.5.2.2 The individual applying for renewal certification is to be trained on renewal certification.

1.5.2.3 Practical examination is to be passed for the renewal of Levels I and II certification. The Relevant standards and procedures in the main-method examination and essay presentation are to be passed for the renewal of Level III certification.

1.5.2.4 A candidate who fails the above examination may be re-examined in the failed part(s), provided that the re-examination takes place not sooner than one month but not later than 12 months after the original examination. A candidate failing the re-examination is to reapply for certification examination.

1.5.3 Recertification

1.5.3.1 Prior to expiry of the period of validity of renewal certification, a new period of validity for the same duration may be granted, provided that the certified individual meets the requirements of 1.5.2.1(1), 1.5.2.2(2) and 1.5.2.3(3) for renewal and the following conditions, as applicable.

1.5.3.2 The individual applying for recertification is to be trained for recertification.

1.5.3.3 The Levels I and II personnel for recertification are to successfully complete necessary examinations. Practical examination is to be passed for Level I. Specific and practical examinations are to be passed for Level II. Relevant standards, procedures examination, practical examination and essay presentation are to be passed for Level III.

1.5.3.4 A candidate who fails the recertification examination may be re-examined in the failed part(s), provided that the re-examination takes place not sooner than one month but not later than 12 months after the original examination. A candidate failing the re-examination is to reapply for examination according to the requirements for initial application for examination.

1.5.4 Credit system certification

1.5.4.1 For a Level III holder applying for renewal or recertification of certificates, in addition to provisions for renewal and recertification, he may also choose credit system. If the credit system certification is chosen, evidential documents or practical evidences from the employer are required to be provided, and a written statement of approval from the employer is to be provided to the Examination Management Organization.

1.5.4.2 Certification is to be granted, where the credit system is chosen, in accordance with Appendix C of ISC Guidelines for Level Assessment and Certification of Non-destructive Testing Personnel. An individual who does not meet the requirements of the credit system is to take the examination in accordance with the provisions for renewal and recertification.

1.5.4.3 In the event of failure by means of examination, application for recertification by means of credit system is generally not to be considered.

1.5.5 Certification is to be withdrawn in either of the following cases and reapplication for examination is not allowed for the following five years :

- (1) if there is evidence of unethical behavior;
- (2) if the work engaged in is beyond the category of the certificate or the level specified;
- (3) if a significant accident takes place due to the individual's negligence and the individual is not fit for NDT work;
- (4) if a significant interruption takes place in the individual's work;
- (5) if there is any evidence to demonstrate that the individual fails to meet the visual acuity and health requirements for NDT work.

1.6 Equivalent certification

1.6.1 For an individual holding a valid NDT certificate which is recognized by the State or certified in accordance with equivalent international standards acceptable by ISC, a ISC NDT certificate may, after equivalent evaluation carried out by ISC, be issued directly or after exemption of corresponding equivalent certification condition.

1.6.2 The following documents are to provided when applying for equivalent evaluation:

- (1) Level Certificate for NDT Personnel or evidential documents satisfying the requirements of 1.6.1;
- (2) basic information of certification body;
- (3) personal professional work experience confirmed by the employer;
- (4) employer's recommendation letter;
- (5) other documents.

1.6.3 Upon the evaluation of the submitted written documents, the following may be exempted:

- (1) requirements for training; and
- (2) general examination, specific examination, basic examination and main-method examination, and/or
- (3) all or part of the practical examination, and/or
- (4) other subjects.

1.6.4 Equivalent evaluation is to be directly handled by ISC Examination Management Organization. Examination for replacing certificate by ISC is to be carried out by the examination center entrusted by the examination management organization according to the requirements of 1.4.

1.6.5 For a certificate meeting the replacement condition, a ISC NDT level certificate with a period of validity not longer than that of the original certificate may be issued.

Appendix E

Detailed Regulation for Evaluation of the Examination Center for Level Assessment and Certification Examination of NDT Personnel

1.1 Application

The detailed regulation applies to evaluation and management of an examination center applying for being that for ISC level assessment and certification examination of NDT Personnel according to ISC Guidelines for Level Assessment and Certification of Non-destructive Testing Personnel.

1.2 Definitions and abbreviations

Definitions and abbreviations in this Chapter are the same as those in ISC Guidelines for Level Assessment and Certification of Non-destructive Testing Personnel.

1.3 Evaluation

1.3.1 Eligibility

1.3.1.1 An examination center for level assessment and certification examination of land-based NDT personnel is required to comply with the following requirements:

- (1) having fixed daily office spaces and basic personnel allocation as well as fixed and applicable examination venues;
- (2) having necessary practical examination equipment such as instrument, facility, test block and specimen satisfying requirements for examination. Minimum equipment number for various subjects is to comply with the requirements of Table 1.3.1.1. If the examination center cannot provide sufficient self-owned equipment, long-term equipment rental agreement is to be signed with other local institutions or organizations.

Minimum equipment number for various subjects

Table 1.3.1.1

Subject	Radiographic (RT)	Ultrasonic (UT)	Magnetic particle (MT)	Liquid penetrant (PT)
Main testing apparatus	2	5	2	
Test block (for commissioning)	1 set	5 sets	2 sets	2 sets
Darkroom equipment	1 set			
Specimen for examination	30	30	20	20

(3) having professionals capable of assisting examination, holding ISC advanced certificate for NDT personnel and having long-term contract with the examination center. There are to be at least two persons holding advanced certificates for NDT with respect to radiographic testing method and ultrasonic testing method respectively, and there is to be at least one person with respect to magnetic particle testing method and liquid penetrant testing method respectively.

1.3.1.2 An examination center for level assessment and certification examination of underwater NDT personnel is required to comply with the following requirements:

- (1) having complete fixed teaching and office spaces as well as complete diving training facility and venue;
- (2) having quality management system covering training scope;
- (3) minimum equipment number for various subjects is to comply with the requirements of

Table 1.3.1.2 “Minimum equipment number for various subjects”;

Minimum equipment number for various subjects

Table 1.3.1.2

Subject	Underwater visual testing	Underwater magnetic particle testing	Underwater ultrasonic testing	Underwater thickness measurement
Diver’s outfit* (3 sets of dry suit and wet suit each)	6	6	6	6
Land-based magnetic particle testing equipment	0	2	0	6
Land-based ultrasonic testing equipment	0	0	2	6
Underwater magnetic particle testing equipment	0	2	0	6
Underwater ultrasonic testing equipment	0	0	1	6
Underwater camera equipment	2	2	2	2
Underwater photographic equipment	2	2	2	2
Underwater potentiometer	2	0	0	2
Underwater thickness gauge	0	0	0	2
Diving support equipment (decompression chamber, etc.)	1	1	1	1
Specimen for training*	3	10	10	3
Specimen for examination*	3	10	10	3

*Specimen for training and specimen for examination are to be provided separately without substitution for each other.

*For individual training, diver’s outfit and diving support equipment (decompression chamber, etc.) are to be provided according to the above table.

(4) having or employing the following personnel: more than two qualified diving instructors holding ISC Level II Certificate for Underwater Non-destructive Testing (including underwater visual testing, underwater magnetic particle testing and underwater ultrasonic testing) with relevant work experience of more than five years; more than two qualified diving instructors holding Certificate for Air Diver or Certificate for Helitrox Diver with rich engineering experience; more than one qualified dive doctor with rich experience; one full-time (part-time) management personnel familiar with training business and capable of teaching implementation and management; and several personnel with qualification for teaching basic theoretical courses. The above personnel are to sign long-term employment contract with the examination center.

1.3.2 Implementation of evaluation

1.3.2.1 The applicant may submit an application for evaluation and relevant information to ISC.

The application information is generally to include:

- (1) basic condition of the applicant;
- (2) the applicant’s organizational setup, personnel allocation framework and equipment number

for various subjects of examination;

- (3) procedural documents relating to management system;
- (4) qualifications and evidence of employment of technical staff;
- (5) management of examination file;
- (6) experience and historical record of examinations organized by the applicant (if any).

1.3.3.2 Upon receipt of an application, ISC will evaluate the written application information according to the requirements of the Detailed Regulation. If the application is not accepted by ISC or cannot be accepted until relevant requirements are met, or relevant work cannot be accepted temporarily due to some reason, the applicant will receive a written notice.

1.3.3.3 Upon receiving satisfactory written evaluation information, ISC will form relevant evaluation team to carry out site evaluation. Site evaluation is mainly to investigate whether the applicant meets the requirements of this Chapter according in terms of its organization, resources and operational procedure, and fill in the ISC Record List of Evaluation of the Examination Center for Level Assessment and Certification Examination of NDT Personnel.

1.3.3.4 During evaluation, the applicant is to provide necessary supporting documents and facilitate the evaluation team as far as possible.

1.3.3.5 On completion of evaluation, ISC will notify the applicant of evaluation result in written form and release in ISC official website the list of examination centers which have passed the evaluation.

1.4 Supervision and result keeping

1.4.1 ISC is to carry out annual supervision of the examination center in combination with specific examination. For the examination center passed ISC evaluation, the first supervision is to be carried out not less than 6 months after the date of passing evaluation, and the interval between two supervisions is not to exceed 15 months.

1.4.2 In order to keep the validity of the evaluation result, the examination center is to strictly maintain the conditions confirmed during evaluation in terms of organizational management and resources and comply with the requirements of this Chapter. The examination center shall notify ISC of any change in time.

1.4.3 If it is found during supervision that the examination center cannot reach the qualification standard, ISC will suspend or cancel its qualification.

1.4.4 During supervision of the examination center by ISC, the examination center is required to meet the requirements for initial application for ISC qualification evaluation. Under either of the following conditions, the evaluation result will be suspended:

- (1) when personnel, location and equipment of the examination center cannot meet the requirements for examination of a certain testing method;
- (2) ISC cannot supervise the examination because the examination center fails to inform ISC in advance of specific time and place of each examination;
- (3) ISC is not informed of any change of personnel, location and equipment of the examination center;
- (4) customer's complaints due to failure of the examination center to handle them in time.

1.4.5 When the result of evaluation by the examination center is suspended, ISC will propose rectification requirements and require to rectify within a definite time. After the examination center has completed rectification on schedule, ISC may recover its evaluation result according to

satisfactory rectification result.

1.4.6 During supervision of the examination center by ISC, under either of the following conditions, the evaluation result of the examination center will be cancelled:

- (1) the examination center takes part in cheating on examination;
- (2) the examination center fails to stop cheating on examination;
- (3) the examination center is substantially dissatisfying the requirements of the Detailed Regulations in terms of its management or resources ;
- (4) the operation of examination center severely violates the requirements of the Guidelines for Level Assessment and Certification of Non-destructive Testing Personnel;
- (5) the examination methods and scope of the examination center have changed against evaluation results;
- (6) the qualification is suspended and rectification is required by ISC, but rectification is not carried out according to the requirements or the rectification results do not comply with the requirements;
- (7) the examination center did not carry out any examination within 1 year;
- (8) the examination center asks for cancellation of evaluation result by itself.

1.4.7 After cancellation of evaluation results of the examination center, ISC will announce the result on its official website. Except for the condition mentioned in 1.4.6(8), if the examination center requests for recovering qualification, a reapplication is needed to be sent to ISC according to the requirements for initial application after 24 months.

1.4.8 After satisfactory evaluation, if it is proved that there is no any change of the evaluation condition affecting the evaluation result, the situations described in 1.4.6 and 1.4.7 do not occur and the requirements of 1.3.1 are met, then the evaluation result is of long-term validity subject to satisfactory supervision.

1.5 Filing

1.5.1 The examination center is to be responsible for maintaining :

- (1) updated list of all certified individuals classified according to NDT method and level;
- (2) summary report for each session of level assessment and certification examination; and
- (3) separate file(s) for each certified individual:
 - ① application forms;
 - ② examination documents such as questionnaires and answers, description of specimens, records, results of test, NDT procedures and grade sheets;
 - ③ reasons for any withdrawal of certification and details of the punishment; and
 - ④ all documents, information and correspondences relating to level assessment and certification of NDT personnel and other documents considered necessary to keep.

1.5.2 Files related to certified individuals are to be kept as long as the certificate remains valid and for at least one full certification cycle after a lapse of certification.