



Nondestructive Testing
ISO 9712



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1.0 PURPOSE

The purpose of this International Personnel Certification Schemes (IPCS) is to define RSA minimum qualification and certification requirements of Non-Destructive Testing (NDT) personnel in accordance with ISO 9712.

2.0 SCOPE

- 2.1 This IPCS has been developed to assist in meeting the minimum requirements for qualification and certification of personnel seeking for NDT personnel certification in accordance with ISO 9712:2012.
- 2.2 The Methods and Levels of NDT personnel certification covered by this IPCS are listed in Section 6.0 as used in accordance with the applicable codes, standards, specifications and regulations referenced below.
- 2.3 Certification to this IPCS provides an attestation of general competence of the NDT personnel. It does not represent an authorization to operate, since this remains the responsibility of the employer, and the certified personnel may require additional specialized knowledge of parameters such as equipment, NDT procedures, materials and products specific for the employer.
- 2.4 Authorization to operate shall be given in writing by the employer in accordance with a quality procedure that defines any employer-required job-specific training and examinations designed to verify the certificate holders's knowledge of relevant industry code(s), standard(s), NDT procedures, equipment, and acceptance criteria for the tested products.

3.0 REFERENCES

- a. ISO 9712:2012, Non-destructive Testing - Qualification and Certification of NDT Personnel.
- b. ISO/TR 25107:2019, Nondestructive Testing - NDT Training Syllabuses.
- c. RSA-QM-1001 Revision 0, Quality Manual - RSA Certification Body Quality Management System.

4.0 ABBREVIATIONS, TERMS AND DEFINITIONS

For the purposes of this document, the abbreviations, terms and definitions given in the reference documents listed in 3.0 above shall apply.

5.0 JOB AND TASK DESCRIPTION

5.1 Functions

- 5.1.1 NDT is a quality control phase in the manufacturing, fabrication and construction of steel structures that, by means of examination or measurement to determines the condition of the structures to predetermined quality requirements.

5.1.2 The NDT personnel are responsible to the owner/user to assure the quality manufacturing, fabrication and construction of steel structures meet the specifications and codes requirement during one or more of the following processes;

- a. welding,
- b. machining,
- c. casting,
- d. rolling,
- e. forging, and
- f. heat treatment.

5.1.3 All NDT activities shall be performed by personnel certified as qualified to perform NDT as Level 1, Level 2, or Level 3 as described in Section 6.0 below.

5.2 Job Tasks

The NDT personnel shall be competent in performing the following tasks;

- a. Select NDT methods, techniques and procedure by the given type and configuration of steel structures.
- b. Select equipment, accessories and consumables required by the procedure.
- c. Check the equipment performance and calibration.
- d. Set-up equipment for NDT works.
- e. Make the proper surface preparation of the test surface for NDT works.
- f. Perform the required NDT works.
- g. Identify, evaluate and measure the test indications produced by NDT works.
- h. Accept or reject the measured indication against the relevant acceptance criteria.
- i. Write a precise NDT report for used by production and/or client's disposal.
- j. Explain the detail finding to the supervisor and/or engineer in-charge, when required.

6.0 CERTIFICATION

6.1 NDT Methods

This IPCS is applicable to each of the following methods:

- a. Eddy Current Testing (ET).
- b. Infrared Thermographic Testing (TT).
- c. Leak Testing (LT).
- d. Magnetic Testing (MT).
- e. Penetrant Testing (PT).
- f. Radiographic Testing (RT).
- g. Ultrasonic Testing (UT).
- h. Visual Testing (VT).

6.2 Level of Certification

6.2.1 Level 1

- 6.2.1.1 An individual certified to Level 1 shall demonstrate competency to carry out NDT according to written instructions and under the supervision of Level 2 or Level 3 personnel.
- 6.2.1.2 Within the scope of the competence defined on the certificate, Level 1 personnel may be authorized by the employer to perform the following in accordance with NDT instructions:
 - a. set up NDT equipment,
 - b. perform the tests,
 - c. record and classify the results of the tests according to written criteria, and
 - d. report the results.
- 6.2.1.3 Level 1 certified personnel shall neither be responsible for the choice of test method or technique to be used, nor for the interpretation of test results.

6.2.2 Level 2

- 6.2.2.1 An individual certified to Level 2 shall demonstrate competency to perform NDT according to NDT procedures.
- 6.2.2.2 Within the scope of the competence defined on the certificate, Level 2 personnel may be authorized by the employer to:
 - a. select the NDT technique for the testing method to be used,
 - b. define the limitations of application of the testing method,
 - c. translate NDT codes, standards, specifications, and procedures into NDT instructions adapted to the actual working conditions,
 - d. set up and verify equipment settings,
 - e. perform and supervise tests,
 - f. interpret and evaluate results according to applicable standards, codes, specifications or procedures,
 - g. carry out and supervise all tasks at or below Level 2,
 - h. provide guidance for personnel at or below Level 2, and
 - i. report the results of NDT.

6.2.3 Level 3

- 6.2.3.1 An individual certified to Level 3 shall demonstrate competency to perform and direct NDT operations for which he is certified.
- 6.2.3.2 Level 3 personnel shall demonstrate:
 - a. the competence to evaluate and interpret results in terms of existing standards, codes, and specifications,
 - b. sufficient practical knowledge of applicable materials, fabrication, process, and product technology to select NDT methods, establish

- NDT techniques, and assist in establishing acceptance criteria where none are otherwise available, and
- c. a general familiarity with other NDT methods.

- 6.2.3.3 Within the scope of the competence defined on the certificate, Level 3 personnel may be authorized by the employer to:
- a. assume full responsibility for a test facility or examination centre and staff,
 - b. establish, review for editorial and technical correctness, and validate NDT instructions and procedures,
 - c. interpret standards, codes, specifications, and procedures,
 - d. designate the particular test methods, procedures, and NDT instructions to be used,
 - e. carry out and supervise all tasks at all levels, and
 - f. provide guidance for NDT personnel at all levels.

7.0 PRE-REQUISITE

7.1 Requirements

7.1.1 Applicants seeking ISO 9712 NDT certifications shall meet the applicable education and experience requirements as described in Table 1 and Table 2.

7.1.2 Documentation of prior certification may be used as evidence of qualification for comparable levels of certification.

Table 1: Level 1 and level 2 Pre-requisite

NDT method	Technique/Limited Certification	Experience (Months)	
		Level 1	Level 2
ET, LT, TT		3	9
UT		3	9
	UTTM	2	n/a
	PAUT, TOFD	n/a	5
RT		3	9
	RI	n/a	5
MT, PT, VT		1	3

NOTE: For TOFD and PAUT, the applicant shall hold a valid UT Level 2 certification.

- 7.1.3 The applicant documents required include a listing of all educations, relevant work and employment. The documents shall include:
- a. an education background with relevant supporting documents,
 - b. a listing of all relevant employers and their contact information when available,
 - c. the nature of the work performed, the dates of employment, and

- d. a letter of verification from the employer or client.

Table 2: Level 3 Pre-requisite

Education Background	Experience (Months)		
	ET, LT, RT, UT, TT	MT, PT, VT	PAUT, TOFD
Successfully completed a technical school or at least two years of engineering or science study at an accredited college or university	18	12	12
None	36	24	24

7.1.4 The educations, relevant work and employment documentation is subject to verification by Certification Department and false information is caused to reject the application and can disqualify the applicant from testing to become NDT Level 1, Level 2 or Level 3 personnel.

7.1.5 If the applicant is being qualified directly to Level 2, with no time at Level 1, the experience shall consist of the sum of the times required for Level 1 and Level 2.

7.1.6 If the applicant is being qualified directly from Level 1 to Level 3, with no time at Level 2, the experience shall consist of the sum of the times required for Level 2 and Level 3.

7.1.7 When gaining experience simultaneously in two or more surface NDT methods, i.e. MT, PT and VT, the experience gained in the application of one NDT method may be complementary to the experience gained in one or more other surface methods.

7.2 Possible Reduction

7.2.1 The level and quality of education possessed by the applicant may be considered when considering possible reduction in the duration of experience. The total experience reduction shall not exceed 50% as described in Table 1 and Table 2.

7.2.2 Credit for work experience may be gained simultaneously in two or more of the NDT methods with the reduction of total required experience as follows:

- 2 testing methods: reduction of total required time by 25%.
- 3 testing methods: reduction of total required time by 33%.
- 4 or more testing methods: reduction of total required time by 50%.

7.2.3 Up to 50% of the practical experience time may be achieved by an appropriate practical course, the duration of which may be weighted by a maximum factor of 5. The course shall concentrate on practical solutions of frequently occurring testing problems and shall involve a significant element of testing known defective specimens.

8.0 TRAINING

8.1 Requirements

- 8.1.1 The applicant shall provide documentary evidence, acceptable to RSA, that he has satisfactorily completed training in the method and level for which the certification is sought.
- 8.1.2 The training may include instructor-led training, personalized instruction, virtual instructor-led training, computer-based training, or web-based training. Computer-based training and web-based training should track hours and content of training with applicant examinations in accordance with 8.1.5.
- 8.1.3 The sufficiently organized training shall be such as to ensure the applicant is thoroughly familiar with the principles and practices of the specified NDT method related to the level of certification desired, and applicable to the processes to be used and the products to be tested
- 8.1.4 For all levels, the applicant shall satisfactorily complete a course of theoretical (50%) and practical (50%) training recognized by RSA. Guidelines for NDT applicant training syllabuses are given in ISO/TR 25107.
- 8.1.5 The minimum duration of training undertaken by the applicant for certification shall be as defined in Table 3 for the applicable NDT method, with the possible reductions defined in 8.9. This duration is based upon applicant possessing adequate mathematical skills and prior knowledge of materials and processes. If it is not the case, additional training may be required by RSA.
- 8.1.6 Direct access to Level 2 requires the total hours shown in Table 3 for Levels 1 and 2. Direct access to Level 3 requires the total hours shown in Table 3 for Levels 1, 2, and 3.
- 8.1.7 When considering the responsibilities of a certified Level 3 (see 6.2.3) and the content of Part C of the basic examination for Level 3 (see Table 6), additional training about the other NDT methods may be necessary.

Table 3: Minimum Training Requirements

NDT Method	Technique/Limited Certification	Level 1 (Hours)	Level 2 (Hours)	Level 3 (Hours)
ET		40	48	48
LT	Pressure Change	24	32	32
	Tracer Gas	24	40	40
MT		16	24	32
PT		16	24	24
TT		40	80	40
RT		40	80	40
	RI	n/a	56	n/a
UT		40	80	40
	UTTM	24	n/a	n/a
	PAUT	n/a	80	40
	TOFD	n/a	40	40
VT		16	24	24

For RT, training hours do not include radiation safety training.

8.2 Possible Reduction

8.2.1 Training duration reductions may be considered as described hereafter, and the total reduction shall not exceed 50% of the time duration given in Table 3.

8.2.2 For all levels,

- i. personnel seeking certification in more than one method (e.g. MT, PT), or for those already certified and seeking certification in another method, when the training syllabus concerned duplicates certain aspects (e.g. product technology), the total number of training hours for these methods (e.g. PT, MT, VT) may be reduced in line with the training syllabus.
- ii. personnel who have graduated in a relevant subject from technical college or university, or have completed at least two years of relevant engineering or science study at college or university, the total required number of training hours may be reduced by up to 50%.

NOTE: It is appropriate for the subject to be relevant to the NDT method (chemistry, mathematics or physics) and/or to the product or industry sector (chemistry, metallurgy, engineering, etc.).

- iii. for Level 3, depending on the scientific and technical background of the applicant, including attendance at other training courses, conferences or

seminars, studying books, periodicals and other specialized printed or electronic materials, the total required number of training hours may be reduced by up to 50%.

9.0 INDUSTRIAL EXPERIENCE

- 9.1 For all levels, experience in accordance with Section 7.0 may be sought following successful examination, the results of the examination shall remain valid for two (2) years after examination.
- 9.2 Documentary evidence of experience shall be confirmed by the employer and submitted to RSA.

10.0 VISION REQUIREMENTS

10.1 Requirements

The applicant shall provide documentary evidence of satisfactory vision in accordance with the requirements described in Sections 10.2 through 10.4 below.

10.2 Administration

The vision examinations shall be administered by an optometrist or a qualified person authorized by the employer. The tests of near visual acuity shall be carried out at initial certification and subsequent annually and verified by the employer.

10.3 Near-Vision Acuity

The examination shall ensure natural or corrected near-distance acuity in at least one eye such that the applicant is capable of reading a minimum of Jaeger Number 1 or Times Roman N4.5 or equivalent letters (having a height of 1.6mm) at the distance not less than 30.5cm.

10.4 Color Contrast Differentiation

The examination shall demonstrate the capability of distinguishing and differentiating contrast among colors or shades of gray used in the method, as specified by the employer.

11.0 CONDUCT OF EXAMINATION

- 11.1 The applicant shall fulfil the minimum requirements of Training and Vision prior to the qualification examination.
- 11.2 All examinations shall be conducted in examination centers established, approved, and monitored by Certification Department.

- 11.3 At the examination, the applicant shall have in his possession valid proof of identification and an official notification of the examination, which shall be shown to the examiner or invigilator upon demand.
- 11.4 Any applicant who, during the course of the examination, does not abide by the examination rules or who perpetrates, or is an accessory to, fraudulent conduct shall be excluded from all further qualification examinations for a period of at least one (1) year.
- 11.5 Applicant shall not be permitted to bring into the examination area personal items, unless specifically authorized to do so by the examiner.
- 11.6 During the examination, applicants will be expected to choose the best answer from the options provided.
- 11.7 The Examination Department shall be responsible for the administration and initial grading of examinations. However, practical examination shall be invigilated by a person certified as NDT Level 2 or Level 3.
- 11.8 All examination questions shall be approved by the Certification Department. The examination shall include only questions selected in an unpredictable way from RSA collection of questions valid at the date of examination.
- 11.9 Written examination (whether e-assessment or conventional) shall be invigilated by an examiner or by one or more approved invigilators placed under an examiner's responsibility.
- 11.10 An examiner shall not be permitted to examine any applicant:
- a. that he has trained for the examination for a period of two years from the date of the conclusion of the training activities.
 - b. who is working (permanently or temporarily) in the same facility as the examiner.
- 11.11 Final grading shall be the responsibility of Certification Department.

12.0 EXAMINATION

12.1 Level 1 and Level 2 Examinations

12.1.1 General Examination

12.1.1.1 The candidate shall be required to take General Examination, as a minimum, to give answers to the number of multiple-choice questions shown in Table 4.

12.1.1.2 Where not otherwise addressed by national regulations, there shall be an additional examination on radiation safety for the radiographic test method. Examinations on the radiographic test method may include either X- or gamma-radiation or both, depending upon the procedure.

Table 4: General and Specific Examinations for Level 1 and Level 2

NDT method	Limited/ Advance Certification	Number of Questions			
		General		Specific	
		Level 1	Level 2	Level 1	Level 2
ET, TT		40	40	20	20
RT		40	40	20	20
	RI	n/a	40	n/a	20
UT		40	40	20	20
	UTTM	40	n/a	20	n/a
	TOFD, PAUT	n/a	40	n/a	20
LT, MT, PT, VT		30	40	20	20

Examination time: General - 60 minutes for 40 questions

45 minutes for 30 questions

Specific - 60 minutes for 20 questions

12.1.2 Specific Examination

12.1.2.1 The candidate shall be required to take Specific Examination, as a minimum, to give answers to the number of multiple-choice questions shown in Table 4.

12.1.2.2 Specific Examination questions shall include questions involving calculations, NDT procedures and questions on codes, standards and specifications.

12.1.3 Practical Examination

12.1.3.1 The candidate shall be required to take Practical Examination, as a minimum, to perform NDT on the number of specimens shown in Table 5.

12.1.3.2 The Level 1 personnel shall follow the NDT instruction(s) provided by the examiner.

Table 5: Practical Examinations for Level 1 and Level 2

NDT Method	Limited/Advance Certification	Number of Specimens	
		Level 1	Level 2
ET		2	2
LT		2	2
MT		2	2
PT		2	2
TT		2	1 + 2 datasheets
RT		2	2 + 12 radiographs
	RI	n/a	12 radiographs
UT		2	2
	UTTM	12 measurements	n/a
	PAUT	n/a	2
	TOFD	n/a	2
VT		2	2

12.1.3.3 The Level 2 personnel shall select the applicable NDT technique and determine the operating conditions related to a given code, standard or specification.

12.1.3.4 The maximum time allowed for each area or volume tested is:
a. for Level 1, two (2) hours,
b. for Level 2, three (3) hours.

12.1.3.5 Level 2 personnel shall draft at least one NDT Instruction suitable for Level 1 personnel, for a specimen selected by the examiner. The recommended maximum time allowed for this part of the examination is two (2) hours.

12.1.3.6 The practical examination shall involve applying the test to prescribed specimens, recording (and, for Level 2 personnel, interpreting) the resulting information to the degree required, and reporting the results in the required format. Specimens used for training purposes shall not be used for examination.

12.1.3.7 Each specimen shall be uniquely identified and have a master report. The master report shall be compiled based upon at least two independent tests, and shall be validated by a Level 3 certificate holders for use in grading examinations. The independent test reports from which the master report is compiled shall be retained as records.

12.1.3.8 Specimens shall simulate field geometries and shall contain discontinuities representative of those likely to occur during manufacturing or in service. They may be natural, artificial or implanted. For Level 2 evaluation tasks, data sets or films can be used instead of real specimens. Specimens used for calibration or for measurement tasks (e.g. thickness or coating measurement) do not need to contain discontinuities. For RT, the specimen need not contain discontinuities since these are exhibited in the radiographs for interpretation. Similarly, for TT the specimen(s) need not contain discontinuities since these are exhibited in the data sets for Level 2 interpretation.

12.1.3.9 For those examinations where discontinuities are normally replaced by artificial sources or data, the Level 1 personnel shall demonstrate the ability to set up and calibrate the equipment, verify its sensitivity and record the test data; the Level 2 personnel shall also demonstrate the ability to interpret and evaluate previously recorded test data.

12.2 Level 3 Examination

12.2.1 Requirements

12.2.1.1 All applicants for Level 3 certification in any NDT method shall have successfully completed (with a grade of $\geq 70\%$) the practical examination for Level 2, except for the drafting of NDT instructions for Level 1.

12.2.1.2 An applicant who is Level 2 in the same NDT method or who has successfully passed a Level 2 practical examination for the NDT method, as defined in Table 5 is exempt from passing again the Level 2 practical examination.

12.2.2 Basic Examination

12.2.2.1 This written examination shall assess the applicant's knowledge of the basic subjects using at least the number of multiple-choice questions shown in Table 6.

12.2.2.2 An applicant holding a valid Level 3 certificate on one NDT method and applying certification in another NDT method is exempted from the need to retake the basic examination.

12.2.2.3 The maximum time allowed for combination of parts A, B and C examination is one hundred fifty (150) minutes.

Table 6: Minimum Required Number of Basic Examination Questions

Part	Subject	Number of Questions
A	Technical knowledge in materials science and process technology.	25
B	Knowledge of RSA certification schemes. This may be an open book examination.	10
C	General knowledge of at least four methods as required for Level 2 and chosen by the personnel from the methods given in Clause 1. These four methods shall include at least one volumetric method (UT or RT).	15 for each test method (total 60)

12.2.3 Main Method Examination

12.2.3.1 This written examination shall assess the applicant's knowledge of the main method subjects using the minimum required number of multiple-choice questions shown in Table 7.

12.2.3.2 The maximum time allowed for combination of parts D and E examination is ninety (90) minutes. Part F examination (NDT procedure drafting) shall one hundred twenty (120) minutes.

Table 7: Minimum Required Number of Main Method Examination Questions

Part	Subject	Number of Questions
D	Level 3 knowledge relating to the test method applied.	30
E	Application of the NDT method in the sector concerned, including the applicable codes, standards, specifications and procedures. This may be an open book examination in relation to codes, standards, specifications and procedures.	20
F	Drafting of one or more NDT procedures in the relevant sector. The applicable codes, standards, specifications and other procedures shall be available to the personnel. For a personnel who has already drafted an NDT procedure in a successfully passed Level 3 examination, the drafting may be replaced with the critical analysis of an existing NDT procedure	—

	covering the relevant method and sector, and containing errors and/or omissions.	
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13.0 GRADING

13.1 Level 1 and Level 2

13.1.1 The general, specific and practical examinations shall be graded separately. Examiner shall be responsible for the grading of the examinations by comparison with model answers.

13.1.2 To be eligible for certification, the personnel shall obtain a minimum grade of 70% in each part of the examination (general, specific, and practical). In addition, for the practical examination, a minimum grade of 70% shall be obtained for each specimen tested, and for the NDT instruction writing, as applicable.

13.1.3 The general and specific parts of the examination are graded by comparing the replies given by the personnel against answer keys approved by RSA. Each correct reply scores 1 point and the mark attributed to the tests is the sum of the points obtained. For the final calculation, the mark of each test is expressed as a percentage.

Table 8: Grading of Level 1 and Level 2 Practical Examination

Subject	Level	
	1	2
Part 1 — Knowledge of the NDT apparatus:		
a) system control and functional checks, and	10	5
b) verification of settings.	10	5
Total	20	10
Part 2 — Application of the NDT method:		
a) preparation of the specimen (e.g. surface condition), including visual examination,	5	2
b) for Level 2, the selection of the NDT technique and determination of operating conditions,	n/a	7
c) setting up of the NDT apparatus,	15	5
d) performance of the test, and	10	5
e) post test procedures (e.g. demagnetization, cleaning, preservation).	5	1
Total	35	20
Part 3 — Detection of discontinuities and reporting:^a		
a) detection of mandatory reportable discontinuities,	20	15
b) characterization (type, position, orientation, apparent dimensions, etc.),	15	15
c) Level 2 evaluation against code, standard, specification or procedure criteria, and	n/a	15
d) production of the test report.	10	10
Total	45	55
Part 4 — NDT instruction writing (Level 2 candidates):^b	n/a	
a) foreword (scope, reference documents),		1
b) personnel,		1
c) apparatus to be used, including settings,		3
		2

d) product (description or drawing, including area of interest and purpose of the test),		2
e) test conditions, including preparation for testing,		3
f) detailed instructions for application of the test,		2
g) recording and classifying the results of test, and		1
h) reporting the results.		
Total	0	15
Overall Grade for Practical Examination	100%	100%
To be successful, the candidate should achieve not less than 70 % in the NDT instruction writing part, i.e. 10.5 marks out of the 15 marks allowed.		
<p>a The candidate failing to report a discontinuity specified on the specimen master report as “mandatory for candidates to report” when performing the test under the conditions specified in the master report shall be awarded zero marks for part 3 of the practical examination relating to the specimen tested. For RT, this condition applies to radiographic interpretation, i.e. failing one “mandatory to report” discontinuity on one radiograph leads to zero marks for the set of radiographs in part 3.</p> <p>b The Level 2 candidate is required to produce an NDT instruction, suitable for Level 1 personnel, for a specimen selected by the examiner. When the Level 2 candidate is testing a specimen for which no NDT instruction is required, the grade is calculated as a percentage of the 85 remaining marks.</p>		

13.1.4 The grading of the practical examination shall be based on Part 1 to Part 4 in Table 8, with the weighting factors in relation to the level and method as applicable.

13.1.5 For the Level 2 practical examination, the grade shall be calculated as follows:

- specimen for which the instruction is produced shall be graded with an overall grade of 100 in accordance with Table 8,
- specimens without instruction shall be graded with an overall grade of 85 in accordance with Table 8, and the final grade shall be calculated by multiplying by 100/85, and
- instruction writing shall be graded with an overall grade of 15 in accordance with Table 8, and this value shall be multiplied by 100/15.

13.2 Level 3

13.2.1 Requirements

13.2.1.1 The grading of the basic and main method examinations shall be done separately. To be eligible for certification, the applicant shall pass both the basic and main method examinations.

13.2.1.2 For the three parts A, B, and C of the basic examination (see Table 6) and parts D and E of the main method (see Table 7), the following requirements apply.

13.2.1.3 When conventional pre-prepared paper-based examinations are used, an examiner shall be responsible for the grading of the examinations by comparing the replies given by the applicant against answer keys approved by RSA. Each correct reply scores 1 point and the mark attributed to the tests is the sum of the points obtained. For the final calculation, the mark of each test is expressed as a percentage.

13.2.1.4 E-assessment systems that automatically score applicant responses against stored data and grade the completed written examination according to prepared algorithms may be used.

13.2.2 Basic

In order to pass the basic examination, the personnel shall obtain a minimum grade of 70% in each of parts A, B, and C.

13.2.3 Main Method

In order to pass the main method examination, the personnel shall obtain a minimum grade of 70% in each of parts D, E, and F. See Table 10 for the weighting of Part F, NDT procedure writing.

Table 10: Grading of Level 3 NDT Procedure Writing

Subject	% maximum
Part 1 — General:	
a) scope (field of application, product),	2
b) document control, and	2
c) normative references and complementary information.	4
Sub-total	8
Part 2 — NDT personnel	2
Part 3 — Materials and equipment:	
a) main NDT equipment (including defining calibration status and pre-test serviceability checks), and	10
b) ancillary equipment (reference and calibration blocks, consumables, measuring equipment, viewing aids, etc.)	10
Sub-total	20
Part 4 — Test piece:	
a) physical condition and surface preparation (temperature, access, removal of protective coatings, roughness, etc.),	1
b) description of area or volume to be tested, including reference datum, and	1
c) discontinuities sought.	3
Sub-total	5
Part 5 — Performance of the test:	
a) NDT method(s) and technique(s) to be used,	10
b) setting up the apparatus,	10
c) conducting the test (including reference to NDT instructions), and	10
d) characterization of discontinuities.	10
Sub-total	40
Part 6 — Acceptance criteria	7
Part 7 — Post-test procedure:	
a) disposition of non-conforming product (labelling, segregation), and	2
b) restoration of protective coatings (where required).	1
Sub-total	3
Part 8 — Production of the test report	5
Part 9 — Overall presentation	10
Grand total	100

14.0 RE-EXAMINATION

14.1 Applicant failing for reasons of unethical behaviour shall wait at least twelve (12) months before reapplying.

- 14.2 Applicant who fails to obtain the pass grade for any examination part, may be re-examined two (2) times in the failed part(s), provided that the re-examination takes place not sooner than thirty (30) days, unless further training acceptable to RSA is satisfactorily completed, nor later than two (2) years after the original examination.
- 14.3 Applicant failing all permitted re-examination shall apply for and take the examination in accordance with the procedure established for new personnel.

15.0 QUALIFICATION ASSESSMENT

- 15.1 The applicant shall fulfil the minimum requirements of education, training, experience, examinations and vision prior to certification.
- 15.2 The applicant shall provide documentary evidence, acceptable to RSA, the following:
- a. education,
 - b. experience,
 - c. satisfactorily completed training, and
 - d. recent vision test.
- 15.3 Certification Department shall verify the examination grades given by the Examination Department.
- 15.4 For RT, the applicant shall hold a valid radiation safety certification from the relevant local authority.

16.0 IPCS CERTIFICATION

- 16.1 Certification of IPCS NDT personnel shall be based on demonstration of satisfactory qualification in accordance with Section 15.0 on a serialized (unique number) certificate and a wallet card stating that the applicant has met the IPCS certification requirements.
- 16.2 Certification certificates and wallet cards shall contain the following:
- a. the family name and forename of the certified inspector,
 - b. the date of issue of the certification,
 - c. the date upon which certification expires,
 - d. a reference to ISO reference document and year of revision,
 - e. the level of certification,
 - f. the name of RSA,
 - g. if applicable, the scope of limitations to the certifications and the special applications,
 - h. a unique inspector identification number,
 - i. the signature of the certified inspector,
 - j. a photograph of the certified inspector in the case of the wallet card,
 - k. a device to prevent falsification of the wallet card, e.g. use of a cold seal, welding into plastic, and
 - l. the signature of Certification Manager.
- 16.3 Qualification certificates shall be fully completed at the time of signing by the Certification Manager. No fill-in-the-blank data remains to be completed by others.

17.0 CERTIFICATION VALIDITY

Certification becomes effective from the date of completion of the initial examination and shall be valid for five (5) years unless revoked for reasons defined in Sections 18.0 and 20.0.

18.0 CONDITION OF CERTIFICATION

The period of validity shall commence (date of issue of the certification) when all of the requirements for certification (education, training, experience, satisfactory vision test, success in examination) are fulfilled. Certification becomes invalid:

- a. at the discretion of RSA, e.g. after reviewing evidence of behaviour incompatible with the certification procedures or failure to abide by a code of ethics,
- b. if the NDT personnel becomes physically incapable of performing his duties based upon failure of the visual acuity examination taken annually under the responsibility of his employer,
- c. if the NDT personnel has not been actively engaged in the performance of the certified NDT method for a period of one (1) year or more during the certification period,
- d. if the NDT personnel fails recertification, until such time he/she meets the requirements for recertification or initial certification, and
- e. if examination or certification fees are not paid when due.

19.0 CERTIFICATION VERIFICATION

19.1 RSA shall release certification test results only to the applicant, or to a person or agency designated by the applicant upon written request, and with notarized and witnessed release.

19.2 Requests for verification of status and certification number of NDT personnel shall be provided to the requestors. Only the certification number, date certified, expiration date, photo, current status (current, revoked, etc.), and certification limitations (corrected vision, etc.) shall be provided by the RSA staff members without the express written approval of the inspector or certificate holder.

20.0 SUSPENSION AND WITHDRAWAL

20.1 The Certification Department shall have the power to suspend, refuse renewal, revoke, place on probation, or reprimand the NDT personnel certification for misrepresentation of facts regarding personal qualifications, status, assignments, etc., relating to personnel certifications whether such misrepresentation was made at the time of application or on subsequent applications (renewal, etc.).

20.2 The Certification Department may suspend, refuse renewal, revoke, place on probation, or reprimand a certificate holder, if found guilty of any unauthorized practice as outlined in Code of Ethics, Rules of Conduct, and Practice.

- 20.3 Reinstatement of a revoked certificate shall be allowed with no penalty or prejudice to the individual provided the reason for such revocation has been rectified to the Certification Department satisfaction.

21.0 CERTIFICATION RENEWAL

- 21.1 The renewal application shall be presented within six (6) months before the date of expiration of the certification. Application presented within twelve (12) months after the date of expiration shall require recertification in accordance with Section 22.0 below. Over this period, no exception is admitted and the inspector shall take full examination in accordance with the procedure established for new applicant.
- 21.2 Certification may be renewed for a new period of five (5) years on production of:
- documentary evidence of a satisfactory visual acuity examination taken within the preceding 12 months,
 - for RT, documentary evidence of valid radiation safety certification from the relevant local authority,
 - actively engaged as NDT personnel in NDT method certified within the most recent two (2) years certification period, and
 - taken a twenty (20) multiple choice questions Quiz relating to the latest revision of procedures, standards and codes, and shall pass minimum 70%.
- 21.3 “Actively engaged as NDT personnel in NDT method certified” shall be defined as “no time period the NDT personnel not performing the certified NDT method for a period of one (1) year or more during the certification period”.
- 21.4 The NDT personnel are allowed to attempt two (2) Quiz re-tests and shall not beyond the expiry of the certificate. Inspectors failing all permitted Quiz re-tests shall be recertified in accordance with Section 22.0 below.

22.0 RE-CERTIFICATION

- 22.1 Re-certification by written examination is required for any one of the following factors:
- NDT personnel who satisfy requirements 21.2a and 21.2b, but have not satisfy requirements 21.2c and/or 21.2d, or
 - Every ten (10) years renewal from the date of initial certification, and satisfy requirements 21.2a and 21.2b.
- 22.2 The NDT personnel may be re-certified and the certification be renewed for a new period of five (5) years on production of:
- a Quiz in accordance with Section 21.2d, and
 - for NDT Level 1 and Level 2, practical examination in accordance with Section 12.1.3, or
 - for Level 3, NDT Level 2 practical examination in accordance with Section 12.1.3 and NDT procedure writing instead of NDT instruction writing.

and shall pass minimum 70% for all parts of quiz, practical examination and NDT instruction/procedure writing.

- 22.3 Alternative to 22.2c, NDT Level 3 personnel may opt to a structured credit system as given in Table 11.
- 22.4 The NDT personnel are allowed to attempt two (2) recertification re-tests and shall not exceed one (1) year after the expiry of the certificate.
- 22.5 NDT personnel failing all permitted recertification examination re-tests shall apply for and take full examination in accordance with the procedure established for new applicant.

Table 11: Structured Credit System for Level 3 Recertification

Item	Activity	Points		
		Credit per Function	Maximum per Item	Maximum per 5 years period
1	Membership of an NDT society, attendance at seminars, symposia, conferences and/or courses covering NDT and related sciences and technologies	1	3	8 ^a
2	Attendance at international and national standardization committees	1	3	8 ^a
3	Convenorship of standardization committees	1	3	8 ^{ab}
4	Attendance at sessions of other NDT committees	1	3	8 ^a
5	Convenorship of sessions of other NDT committees	1	3	8 ^{ab}
6	Attendance at sessions of NDT related working groups	1	5	15 ^a
7	Convenorship of NDT related working groups	1	5	15 ^{ab}
8	NDT related technical/scientific contributions or publications	3	6	20 ^{cd}
9	NDT related research work published	3	6	15 ^{cd}
10	NDT research activity	3	6	15 ^{cd}
11	NDT technical instructor (per 2 h) and/or NDT examiner (per examination)	1	10	30 ^d
12	Professional activity	-	-	-
13	within a NDT facility, NDT training centre or NDT examination facility or for Engineering of NDT (see Annex E) (for each full year)	1	10	40 ^d
14	Dealing with disputes referring to clients	1	5	15 ^d
15	Development of NDT applications	1	5	15 ^d

^a Maximum points for items 1 to 4: 20.

^b Points to be given for both convenorship and attendance.

^c If there is more than one author, the lead author shall define points for the other authors.

^d Maximum points for each of items 5 and 6: 30, and 7: 50

23.0 CERTIFICATION LEVEL UPGRADE

- 23.1 IPCS NDT Personnel Level 1 may upgrade to Level 2 by satisfying the Level 2 requirements for education, training, experience, vision test and examinations.
- 23.2 IPCS NDT Personnel Level 2 may upgrade to Level 3 by satisfying the Level 3 requirements for education, training, experience, vision test and examinations.
- 23.3 IPCS RT Level 1 may upgrade to RI by satisfying sixteen (16) hours RI training, two (2) months RT/RI experiences, vision test and RI examinations.

24.0 RECORDS

Personnel certification records shall be maintained and updated for the duration of 10 years after expiry and shall include the following:

- a. Name of certified individual.
- b. Level of certification and limitations (if any), as applicable.
- c. Educational background and experience of certified individuals.
- d. Records indicating satisfactory completion of training.
- e. Results of the vision examinations for the current certification period.
- f. Current examination copy(ies) or evidence of successful completion of examinations.
- g. Composite grade(s) or suitable evidence of grades.
- h. Dates of certification and/or recertification.
- i. Certification expiration date.

