External Document





Certification of Non-Destructive Testing (NDT) Personnel according to EN ISO 9712:2022









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1 INTRODUCTION

The present document describes the specific requirements applicable to the certification of **NDT** personnel, according to **EN ISO 9712:2022**, and also in line with the provisions of European Directive 2014/68 / EU - "Pressure Equipment", Annex I, paragraph 3.1.3 (the Pressure Equipment Directive was transposed in Portugal by Decree-Law No. 111-D / 2017 of August 31).

This document complements general requirements included in DDE-CER-001.

In case of omission, reference shall be sought in EN ISO 9712:2022.

2 SCOPE

2.1 General Certification

This document considers the following methods, sectors and categories:

Method	Product sector	Category
Radiographic testing (RT)	Moldo (w)	
Ultrasonic testing (UT)	Welds (w)	Level 1
Magnetic testing (MT)	Metallic Materials (c, f)	Level 2 Level 3
Penetrant testing (PT)	Metallic Fabrication (s)	
Visual testing (VT)	Welds (w)	Level 2

Where:

- w Welded products;
- c Castings;
- f Forgings;
- **s** Tests carried out before and along service including manufacture;

Product Sectors cover the following fields of application:

- **Welding:** The weld itself, Heat Affected Zone and, if required, the parent material in the scanning area to confirm the absence of discontinuities that may limit the application of the NDT method. Includes manufacture and in service made welds.
- Metallic Materials: Includes manufacturing or in service of cast (c) and forged (f) products.
- Metallic Fabrication: Tests before the entry into operation and/or service of equipment, installations
 and metallic structures, including manufacturing. This sector encompasses welding (w) and metallic
 materials (c, f) sectors.





2.2 Limited Application Certification

Method	Limited application	Product sector	Category	
Radiographic Testing (RT)	Radiographic Interpretation	Welds	Level 2	
Ultrasonic testing (UT)	Thickness Measurement	Metallic Materials	Level 1 Level 2	

2.3 Certification in scope of European Directive 2014/68/EU (DL 111-D/2017)

Section of Directive 2014/68/EU (DL 111-D/2017)	Product	Procedure (Module and description)	Specification / Standard	
Annex I	Pressure equipment or assemblies of risk classes III and IV	3.1.3 - Approval of personnel performing non-destructive tests (on permanent joints of pressure equipment)	EN ISO 9712	

Note: RELACRE/OCP is recognized by IPQ - Portuguese Institute of Quality as Third Party in line with Article 20 of Directive 2014/68 / EU.

Certification obtained in accordance with this document meets the requirements of Directive 2014/68/EU and therefore no further qualification process is required.

3 RESPONSIBILITIES

3.1 Employer

The employer shall send the certificate of qualifications and documented evidence of training, professional experience and vision requirements, necessary to fulfill the admission requirements for examination of the candidates under his responsibility. For self-employed or unemployed workers, professional experience shall be confirmed by supervisor.

In respect of certified personnel, the employer will be responsible for:

- a) all that concerns the authorization to operate, i.e. providing job-specific training (if necessary);
- b) issuing the written authorization to operate;
- c) the results of NDT activities;
- d) ensuring that the annual vision requirements of 5.1 are met;
- e) maintaining documentary evidence confirming the continuous application of the NDT method in the relevant sector(s) without significant interruption;
- f) ensuring that personnel hold valid certification relevant to their tasks within the organization;
- g) maintaining appropriate records.

These responsibilities shall be described in a documented procedure.

If the certified individual is the employer, he or she will assume all the responsibilities previously described.

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3.2 Candidate

The candidate shall provide valid evidence of training, experience and vision, necessary to fulfill the requirements of this document, duly confirmed by the employer.

For self-employed or unemployed workers, the requirements shall be validated by the supervisor approved by RELACRE/OCP.

The candidate shall comply with all applicable requirements established by the certification body.

3.3 Certificate holders

Certificate holders shall comply with the rules of conduct and use of certificates established by RELACRE/OCP, namely:

- a) comply with the applicable rules of the certification scheme;
- b) claim certification only for the scope granted;
- c) not use the certification in a way that compromises the reputation of the certification body or make any claim regarding the certification that the certification body considers misleading or unauthorized:
- d) cease the use of any reference to certification that contains any mention of the certification body, following a suspension or withdrawal of certification and return any certificates issued by the certification body;
- e) not use the certificate in a misleading way;
- f) immediately inform RELACRE/OCP of any disability that affects certification requirements;
- g) inform RELACRE/OCP whenever there is a significant interruption of the activity and suspend the use of the reference to certification, until the conditions for revalidation of the certificate are met;
- h) update personal data with the certification body.

They shall also maintain records that demonstrate annual compliance with vision requirements and activities carried out within the scope of certification, without significant interruptions.

3.4 Supervisor

The supervisor is an individual who validates the candidate's professional experience, through evaluating the application of a specific NDT method, including preparation, performance of test and recording the results obtained.

The supervisor shall be:

- a) a Level 2 or 3 certificate holder, in the same method;
- or
- b) a non-certified person, approved by the certification body, who has the knowledge, competence, training and experience necessary to validate the candidate's professional experience.

Note: In EN ISO 9712:2022, the supervisor is referred as "referee".

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4 CATEGORY CHARACTERIZATION

4.1 Level 1

An individual certified to Level 1 has demonstrated competence to carry out NDT according to written instructions and under the supervision of Level 2 or Level 3 personnel.

With Level 1 certification, personnel may be authorized by employer to:

- Set up NDT equipment;
- · Perform the tests;
- Record and classify the results of the tests according to written criteria;
- Report the results.

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.

4.2 Level 2

An individual certified to Level 2 has demonstrated competence to perform NDT according to NDT procedures or instructions. With Level 2 certification, personnel may be authorized by employer to:

- Select the NDT technique for the testing method to be used;
- Define the limitations of application of the testing method;
- Prepare written instructions, adapted to real working conditions, based on codes, standards, specifications and procedures;
- · Set up and verify equipment settings;
- Perform and supervise tests;
- Interpret and evaluate results according to applicable standards, codes, specifications or procedures;
- Carry out and supervise all tasks at or below Level 2;
- Provide guidance for personnel at or below Level 2;
- Report test results.

4.3 Level 3

An individual certified to Level 3 has demonstrated competence to perform and direct any NDT operation for which he is certified. Level 3 personnel have demonstrated:

- The competence to evaluate and interpret results in terms of existing standards, codes and specifications;
- 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;
- A general familiarity with other NDT methods.

Within the scope of the competence defined on the certificate, Level 3 personnel may be authorized by the employer to:

- Establish, review and validate NDT instructions and procedures;
- Interpret standards, codes, specifications, and procedures;
- Designate the test methods, procedures, and NDT instructions to be used;
- Carry out and supervise all tasks at all levels;
- Provide guidance for NDT personnel at all levels.

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5 EXAM APPLICATION REQUIREMENTS

Candidates shall fulfil the minimum requirements of **Vision** and **Training** prior to the qualification examination and shall fulfil the minimum requirements for **Industrial Experience** prior to certification.

Level 2 certification may be obtained without prior certification in Level 1 and Level 3 certification may be obtained without any certification (see conditions in 5.2 and 5.3).

5.1 Vision requirements

Candidates shall provide documented evidence of satisfactory vision according to:

5.1.1 Near vision acuity

Prior to certification and annually, near visual acuity shall be checked by one of the following:

- a) requirements of ISO 18490 standard;
- b) minimum of Jaeger number 1 or Times Roman N 4.5 or equivalent letters, at not less than 30 cm.

Satisfactory Visual Acuity can be obtained with at least one eye, with or without correction.

5.1.2 Colour vision

Prior to certification, renewal and recertification, certified candidates/ certificate holders shall demonstrate a colour vision test taken within the previous 5 calendar years.

This test shall include sufficient colour vision and/or gray scale perception so that the individual has the ability to distinguish and differentiate the colours or degrees of gray used in the methods/ techniques specified by the employer.

The test shall confirm acceptable colour vision or identify any limitations in colour perception. When there is a limitation, the employer shall confirm whether the limitation conditions the application of the specific method or techniques.

Note: The Ishihara test is an example of a suitable colour vision test.

5.1.3 Personnel administering vision tests

Verification of near vision acuity, colour vision and/or gray scale perception shall be carried out by an ophthalmologist, optometrist or other recognized medical practitioner.

Preferably, vision test results should be recorded in Mod.CER.074, available on the RELACRE/OCP website (www.relacre.pt).

5.1.4 Validity of vision tests

Vision test records shall be valid on the date of the decision on certification/ renewal/ recertification.

If the vision test record expires after requesting certification/ renewal/ recertification and/ or taking the exam, the candidate shall submit a new valid record.





5.2 Training

Certification candidates shall present documented evidence, accepted by the Personnel Certification Body (OCP), of <u>successful completion</u> of **Training**, in the the method and level for which the certification is sought.

Training shall include theoretical and practical training and be recognized by RELACRE/OCP, in accordance with the methodologies established in procedure **PE.CER.012**.

Training for initial certification is valid up to 10 years, from the date of completion.

The minimum duration of training for each method, limited application method and category shall comply with the following table:

Method/ Limited Application	Category	Minimum time	Minimum time (Direct access ^{a)})
	Level 1	5 days (40h)	
RT ^{b)}	Level 2	10 days (80h)	15 days (120h)
	Level 3	5 days (40h)	20 days (160h)
	Level 1	8 days (64h)	
UT	Level 2	10 days (80h)	18 days (144h)
	Level 3	5 days (40h)	23 days (184h)
	Level 1	3 days (24h)	
МТ	Level 2	2 days (16h)	5 days (40h)
	Level 3	4 days (32h)	9 days (72h)
	Level 1	3 days (24h)	
PT	Level 2	2 days (16h)	5 days (40h)
	Level 3	3 days (24h)	8 days (64h)
VT	Level 1	3 days (24h)	-
VI	Level 2	2 days (16h)	5 days (40h)
RT/ Radiographic Interpretation	Level 2	8 days (64h)	
UT/ Thickness	Level 1	4 days (32h)	
measurement	Level 2	5 days (40h)	9 days (72h)

a) Without the previous certification category;

For Level 3 certification, the minimum training presented in above table, may be complemented in different ways, depending on the candidate's technical and scientific background (e.g.: other training courses, conferences and seminars, books, magazines and other specialized publications).

b) The training time is only for film radiography; Radiation Protection is not included (see applicable legislation).





5.2.1 <u>Training not recognized according to PE.CER.012</u>

RELACRE/OCP may accept training provided in another country, if it is recognized by a similar Personnel Certification Body as RELACRE/OCP, accredited in accordance with ISO/IEC 17024 and ISO 9712 for the certification of NDT certificate holders and/or taught by a member of EFNDT and/or ICNDT. In the latter case, the training syllabus shall comply with ISO/TS 25107.

5.3 Industrial NDT Experience

Candidates for certification shall present to RELACRE/OCP, documented evidence of supervised **Industrial NDT Experience** in applying the method to the sector in question.

Supervision consists of evaluating the application of a given NDT method, including preparation, carrying out the test and recording results. Supervision shall be carried out by a Level 2 or 3 certificate holders on the same method.

If the supervisor is not a certified Level 2 or 3 individual in the same method, he or she shall provide evidence of competence, namely records of relevant training and professional experience (curriculum vitae + evidence). In this case, pre-approval by the supervisor is recommended, before starting the professional experience period, by sending the evidence to RELACRE/OCP.

Evidence of experience (Mod.CER.127) shall be confirmed by the employer and supervisor. In case of self-employed or unemployed workers, the document shall only be signed by the supervisor.

Candidates to Level 3 certification shall also present to RELACRE/OCP a detailed curriculum vitae.

Minimum industrial experience for each method, limited application and category shall comply with the following table:

1) Welds or Metallic Materials Sectors

Method/ Limited	Cat.	Minimum time		Minimum time (Direct access ^{b)})	
Application		days ^{a)}	hours	days ^{a)}	hours
	Level 1	45	315		
RT and UT	Level 2	135	945	180	1260
	Level 3	450	3150	630	4410
MT and PT	Level 1	15	105		
	Level 2	45	315	60	420
	Level 3	240	1680	300	2100
VT	Level 2	45	315	60	420
RT/ Radiographic Interpretation	Level 2	90	630		
UT/ Thickness	Level 1	22,5	157,5		
measurement	Level 2	67,5	472,5	90	630

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- a) 1 day is equivalent to at least 7 working hours, which can be obtained in a single day or by accumulating hours. A
 maximum of 12 hours per day is allowed. Experience in days is obtained by dividing the number of hours
 accumulated by 7;
- b) Without the previous certification category.

2) Metallic fabrication Sector

Method/ Limited	Cat.	Minimu	ım time	Minimum time (Direct access ^{b)})	
Application		days ^{a)}	hours	days ^{a)}	hours
	Level 1	60	420		
RT and UT	Level 2	170	1190	230	1610
	Level 3	565	3955	795	5565
	Level 1	20	140		
MT and PT	Level 2	60	420	80	560
	Level 3	300	2100	380	2660

a) 1 day is equivalent to at least 7 working hours, which can be obtained in a single day or by accumulating hours. A
maximum of 12 hours per day is allowed. Experience in days is obtained by dividing the number of hours
accumulated by 7;

Note: When the candidate seeks certification in more than one method, the total experience time is the sum of the experience time in each method.

5.3.1 Application to exam without prior total time of experience

Level 1 and Level 2 certification exams may be sat without compliance of industrial experience requirements and according to the following:

Level 1

The candidate shall evidence at least 50% of the minimum experience required for Level 1.

Level 2

The candidate shall show evidence of having at least the required experience for Level 1.

The exam results will be kept for a maximum period of <u>5 years</u> from the date of the initial exam. Certification shall be granted as soon as compliance with all requirements, including the minimum experience time, is demonstrated.

6 CERTIFICATION EXAMINATION

6.1 General

This chapter establishes the generic contents of the different elements that constitute NDT certification exams to cover an NDT method, industry sector and/or product as appropriate.

The Level 1 examination consists of the following parts:

b) Without the previous certification category.





- General Examination;
- Specific Examination;
- Practical Examination.

The Level 2 examination consists of the following parts:

- General Examination;
- Specific Examination;
- Practical Examination;
- NDT instruction writing.

The Level 3 examination consists of the following parts:

- Basic Examination: Parts A, B and C (see 6.3.1);
- Main Method Examination: Parts D, E and F (see 6.3.2).

Each exam element is assessed separately. The results remain valid for a maximum period of 5 years while the candidate completes the remaining certification requirements.

The exams (theoretical and practical) will be carried out at an Exam Center approved by RELACRE/OCP or at RELACRE's own facilities.

6.2 Content and assessment of Levels 1 and 2 exams

6.2.1 General Examination

The **General Examination** contains questions that address the general theory of the corresponding NDT method. These are multiple answer questions, selected at random, from RELACRE/OCP "Question Pools", duly validated.

The number of questions for the general exam for Levels 1 and 2 of all methods, including limited applications, is **40 questions**, with a maximum duration of **1:20h**.

To successfully complete the exam, a minimum grade of 70% shall be obtained.

6.2.2 Specific Examination

The **Specific Examination** contains questions related to aspects of the specific application of the method, in the sector(s) subject to qualification. The exam will include questions involving calculations, questions about written procedures and codes, European (EN), international (ISO) standards and other specifications.

The questions are multiple answer, selected randomly, from RELACRE/OCP "Question Pools", duly validated.

The number of questions depends on the product sector, as shown in the following table:

Sector	N.º of questions	Duration (h)
Welds	20	1:00
Metallic Materials	20	1:00
Metallic fabrication	30	1:30

To successfully complete the exam, a minimum grade of 70% shall be obtained.





6.2.3 <u>Practical Examination</u>

The **Practical Examination** involves carrying out a series of interventions on a specific type and number of exam specimens, to assess the examinee's competence, within the scope of the intended certification.

The examination specimens contain reportable discontinuities, some of which are classified of mandatory detection.

The time allocated to this part and the number of specimens are indicated in the following table:

Method/ Limited	Welds		Metallic materials ^{a)}		Metallic fabrication b)	
application	Number of specimens	Duration (h)	Number of specimens	Duration (h)	Number of specimens	Duration (h)
PT, MT, VT d)	2	2:00	2	2:00	3	3:00
UT d)	2	4:00	2	4:00	3	6:00
RT – Level 1	2	3:00	2	3:00	3	4:30
RT – Level 2 e)	2 + 10 films	6:00	2 + 10 films	6:00	3 + 20 films ^(c)	10:30
RT/ Radiographic Interpretation – Level 2	10 filmes	3:00	-	_	-	_
UT/ Thickness measurement ^{d)}			2	2:00		

Notes:

- a) Metallic materials sector: 1 cast specimen and 1 forged specimen;
- b) Metallic fabrication sector: 1 welded specimen and 2 metallic materials specimens;
- c) In this case, the films to be interpreted will be divided between the welding and metallic materials sectors;
- d) In **VT, UT and UT/Thickness Measurement** exams, the candidate shall take the equipment and material necessary to carry out the test, duly calibrated or verified, as appropriate;
- e) RT Level 2 candidates, certified in RT Level 1 in the same sector, only 1 specimen.

Practical examination includes:

Category	
Level 1	 Equipment adjustment and calibration; Test the number of specimens referred above, according to instructions supplied by RELACRE/OCP; Reporting of results in a standard format supplied by RELACRE/OCP.
Level 2	 Equipment adjustment and calibration at candidate's own criteria; Test the number of specimens referred above, based on a technique chosen by candidate; Report the results in a standard format supplied by RELACRE/OCP.

To successfully complete the practical examination, the candidate shall obtain a minimum grade of 70% in each examination specimen tested.

In the Radiography method (RT) Level 2 practical examination, the set of radiographic films is considered a specimen, being necessary to obtain a minimum of 70% in this part of the examination. Failure in this part implies repeating all the practical examination (except for the NDT Written Instruction).





Note: Failure to detect discontinuities classified as mandatory implies failure in the examination specimen in question and, consequently, failure in the practical examination.

6.2.4 NDT Instruction writing

The **written NDT Instruction** is only applicable to Level 2 examinations and is intended for the candidate to prepare a precise description of the steps to be followed in a test, for a given exam specimen, in accordance with an established standard, code, specification or procedure.

The written instruction will refer to one of the specimens tested by the candidate or, if it is an exclusive repetition of this part, a specimen selected at random by RELACRE/OCP.

The duration of this part of the exam is **2:00h** for each method and the standards provided by RELACRE/OCP can be consulted.

To successfully complete this exam part, the candidate shall obtain a minimum grade of 70%.

6.3 Content and assessment of Level 3 exams

All candidates to Level 3 certification in any NDT method shall have successfully completed the practical examination for Level 2 in the relevant sector and method, except for the drafting of NDT instructions for Level 1.

Exemptions for Level 2 practical examination:

- a) Level 3 candidates who have Level 2 certification in the same method and sector.
- b) Level 3 candidates for a "Welding" or "Metallic Materials" method and sector, who have passed a Level 2 practical exam, for the same method, in the "Metallic Fabrication" sector, carried out within the previous 10 calendar years.

6.3.1 Basic Examination

Basic Examination will be composed of questions randomly extracted from RELACRE/OCP's Examination Questions Database

Basic Examination has the following number of multi-choice questions:

Part Subject		Number of questions	Time (h)
A	Technical knowledge in materials science and process technology.	25	00:50
В	Knowledge of the certification body's qualification and certification system (RELACRE/OCP) based on EN ISO 9712 (this may be an open book examination).	10	00:30
С	General knowledge of at least 4 methods as required for Level 2 and chosen by the candidate. Note: The 4 selected methods shall include at least 1 volumetric method (UT or RT).	60 (15 for each test method)	02:00

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To successfully complete this exam, the candidate shall obtain a minimum grade of 70% in each part (A, B and C).

The results of the "Basic Exam" are valid for a maximum period of 5 years. A candidate with a valid Level 3 certificate does not need to take the "Basic Exam" if applying for certification in another Main Method.

6.3.2 **Main Method Examination**

The Main Method Examination will be composed of questions randomly extracted from RELACRE/OCP's **Examination Questions Database**

The Main Method Examination has the following number of multi-choice questions:

		"Welding" or "Metallic Materials"		"Metallic Fabrication"	
Part	Subject	Number of questions	Time (h)	Number of questions	Time (h)
D	Level 3 knowledge relating to the test method under certification.	30	1:00	30	1:00
E	Application of the NDT method in the sector concerned, including the applicable codes, standards, specifications and procedures.	20	1:00	30	1:30
F	Drafting of one NDT procedure. Note: consultation of codes, standards or specifications, provided by RELACRE/OCP or by the candidate himself, will be permitted, as long as they are not annotated.	1	5:00	2 (soldadura + materiais)	10:00

To successfully complete this exam, the candidate shall obtain a minimum grade of 70% in each part (D, E and F).

A certificated Level 3 who intends to change sectors in the same NDT method does not have to repeat the Basic Examination and Part D of Main Method examination.

6.4 **Re-examination**

A candidate who fails to obtain the minimum grade to pass the exam (70%) in one or more exam parts, can repeat them a maximum of two times.

The re-examination shall take place not sooner than 30 days after the initial exam date (unless appropriate additional training is demonstrated and accepted by RELACRE/OCP), nor after 2 years from the date of the initial examination.

A candidate who fails both re-evaluations shall complete additional training, accepted by the certification body, and repeat all elements of the exam.

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7 CERTIFICATION

A candidate who meets all certification requirements will be certified. As evidence of this certification, RELACRE/OCP provides a certificate, which clearly identifies the certified scope, the reference documents and the validity from the date of the certification decision.

7.1 Issue and expedition of Certificate

A Certificate is issued in line with the following time frames:

- a) up to 30 working days from the date of completion of the certification exam, if compliance with all requirements is achieved;
- b) up to 15 working days from the date of compliance with all requirements for examination applications without total time of experience (see 5.3.1).

The Certificate shall be sent to the contact person indicated in the application after confirmation of payment of inherent costs.

7.2 Validity of Certificate

The certificate issued is <u>valid for 5 years</u> from the date shown on the certificate. However, to maintain its validity, compliance with vision requirements shall be confirmed annually (see 5.1).

The validity of issued certificates can be confirmed on the RELACRE/OCP website.

7.3 Reduction or Extension of Certification Scope

A Level 1 or Level 2 certified individual, who intends to change sectors or add another sector to the same NDT method, only has to take the specific and practical exams for that method and sector. For Level 2, the test instruction for the new sector shall be sat.

A Level 3 certified individual wishing to change sectors or add another sector to the same NDT method needs not to sit neither the Basic Examination nor Part D of the Main Method examination.

When it is intended to add a new sector or technique to the same method, additional professional experience shall be demonstrated in the new sector, at least 25% of the total time required in 5.3 and never less than 15 days in duration.

In this case, the new sector will be added to the existing certificate and the original validity will be maintained.

Scope reduction may be requested at any time provided that the certificate in force has a wider scope than the one intended. No further action is required.

7.4 Suspension

Certification may be suspended by RELACRE/OCP in the following cases:

- a) if the individual has a temporary physical disability, which affects the performance of his or her functions;
- b) if near visual acuity requirements set out in this document are not met;

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- If a significant interruption takes place (see 7.4.1) in the method for which the individual is certified;
- by decision of RELACRE/OCP for any other justified situations.

7.4.1 Significant interruption

Significant interruption is the absence from work activity which prevents the holder of certification from practising the duties corresponding to his or her scope of certification for:

- A continuous period larger than one year;
- Several periods that sum up more than 2 years (two fifths of the 5-year validity of the certificate).

Note: Legal holidays or periods of sickness of less than 30 days are not considered when calculating the interruption.

7.4.2 **Revalidation of Certificates**

If the reason for suspension of certification is "physical incapacity" – 7.4 a), the individual can revalidate the certification if there is evidence that the situation has been corrected, for example, by sending a Medical Fitness Record. In this case, no significant interruption of the certificated activity shall occur.

In the case of situation 7.4 b), the suspension is lifted as soon as the individual sends a record of satisfactory visual acuity and if there has not been a significant interruption of activity.

If a "significant interruption of activity" has occurred, the certificate can be revalidated by passing a recertification exam (see 9.1 or 9.2). In this case, the certification will be valid for a new period of 5 years counting from the date of revalidation, keeping the phase of the certification cycle in which this occurs.

In the case of situation 7.4 d) and depending on its severity, it is not possible to revalidate the certificate and the individual is prevented from re-applying to any certification scheme within a period of 1 year from the date of the cancellation decision of certification.

7.5 Withdrawal of certification

The certificate may be withdrawn by RELACRE/OCP in the following cases:

- at the discretion of the certification body, i.e. after reviewing evidence of certificate holder failure to abide by a code of ethics;
- if the individual fails to meet the requirements of renewal; b)
- if the individual fails to meet the requirements of recertification; c)
- when verifiable evidence is received from the employer stating that the individual has become d) physically incapable of performing professional duties.

A withdrawn certificate cannot be revalidated and the individual will have to begin the initial certification process.

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8 RENEWAL

Prior to expiry of validity following certification and recertification, certification may be renewed by the certification body for a new period of validity, provided that the individual:

- a) Provides evidence of a satisfactory assessment of near visual acuity, carried out in the 12 months prior to renewal, in accordance with the requirements of section 5.1 of this document;
- Demonstrates satisfactory colour vision and/or gray scale perception, carried out in the previous 60 months;
- c) Objectively demonstrates the continuity of activity covered by certification, without significant interruptions, since the issue date of certificate. Continuity in the activity may be evidenced submitting a Mod.CER.077 form completed by the employer, available in RELACRE/OCP website.

And one of the following options:

- d) Successfully complete the <u>practical renewal exam</u> (see 8.1), the number of test specimens to be in accordance with the sector in question, namely:
 - Welding or Metallic Materials Sector: 1 specimen;
 - Metallic Fabrication Sector: 2 specimens (1 welding and 1 metallic materials).
- e) Comply with the requirements of the structured credit system (see 8.2), in accordance with Mod.CER.125, available in the RELACRE/OCP website.

If the criterion referred in c) is not met, the individual shall successfully complete a practical exam, as referred in 9.1 of this document.

8.1 Renewal practical exam

The practical renewal exam consists of a series of interventions on a specific type and number of exam specimens, to assess the examinee's competence within the scope of the sought certification.

To successfully complete this exam, the candidate shall obtain a minimum rating of 70% on each specimen tested.

If a minimum grade of 70% is not obtained, a repetition is permitted, at most twice, between 7 days and $\underline{12}$ months from the date of the first renewal exam.

If the requirements are still not met, Recertification shall be followed.

8.2 Structured credit system

When a candidate chooses to use the structured credit system, evidence shall be supplied to the certification body to demonstrate achievement of a minimum of 100 points within the 5-year renewal period, based on the requirements in Annex 1 and in accordance with the following:

- **Level 1:** a minimum of 75 points is required for any combination of activities listed in part A of the table in Annex 1;

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- Levels 2 or 3: a minimum of 50 points is required for any combination of activities listed in part A of the Table in Annex 1.

The evidence shall be numbered according to the items listed and validated by the employer or supervisor, in case of self-employed workers.

If the requirements of the structured Credit System are not met (minimum 100 points), the individual can opt for a 2nd submission of documentation or take the practical Renewal exam, as described in 8 d), paying the corresponding fee. If the minimum number of points is not still obtained or the exam is not succeeded, one repetition of the exam is allowed, within 12 months from the date of renewal request, via Credit System.

If the requirements continue not to be met, the individual shall comply with the requirements for recertification, as described in 9.1 (Levels 1 and 2) and 9.3 (Levels 3).

8.3 Validity and issue of certificates

Certificate holders, and/or their employers, are responsible for the Certificate Renewal application. A duly completed form Mod.CER.079, available on the RELACRE/OCP website, shall be sent to RELACRE/OCP, attaching evidence required in 8 a), b) and c) and, in case of structured Credit System, evidence necessary to obtain 100 points.

To guarantee the evaluation of the process and issue of the new certificate, before the current certificate expires, it is recommended that the application is sent to RELACRE/OCP at least **2 months in advance** of the expiry date of certificate.

If the renewal application is received or completed after the certificate's date of expiration, the new certificate's renewal date is the date on which all requirements are met. In this case, there is an interruption in the certification period and the date of expiration of the new certificate is established from the previous date of expiration.

Renewal applications will not be accepted after 12 months from the certificate's expiration date.

If the requirements for Renewal are not met, candidates shall comply with the requirements for Recertification. However, the process shall be completed within 12 months after the certificate's expiration date, with the next phase of the cycle being Recertification.

After this period, Renewal cannot be granted and the individual shall satisfy the initial certification requirements.

The certificate will only be sent after all costs related to the renewal process have been paid.

9 RECERTIFICATION

Before the completion of each second period of validity, the certification may be extended by RELACRE/OCP for a new period of five years or less, provided that the certified individual meets the requirements established in 9.1 (Levels 1 and 2) or 9.2 (Level 3).

Certificate holders, and/or their employers, are responsible for the Recertification application. A duly completed form Mod.CER.079, available on the RELACRE/OCP website, shall be sent to RELACRE/OCP, **before the certificate's expiration date**, attaching evidence required in 9.1 (Levels 1 and 2) or 9.2 (Level 3).

RELACRE/OCP only guarantees the completion of the evaluation process and timely issue of the new certificate if applications are received at least **2 months in advance** of the certificate's expiration date.





Exceptionally, when the recertification process was started before the certificate's expiration date, but for some justified reason it was not completed, the individual has a maximum of 12 months to complete it.

Recertification requests will not be accepted after the certificate's expiration date.

After certificate expiry and if the individual seeks certification, he or she shall go through initial certification.

9.1 Levels 1 and 2

Levels 1 and 2 certificate holders seeking recertification shall:

- a) meet the criteria for renewal specified in 8. a), b) and c);
- b) for Level 2, sit a successful practical part (see 6.2.3) and the NDT instruction writing.

To successfully complete the exam, the candidate shall obtain a minimum grade of 70% in each element.

If the candidate does not obtain the minimum classification, he or she may repeat this exam element, at most twice, between 7 days and 12 months from the date of the first recertification exam.

A candidate who fails both re-evaluations shall complete additional training, accepted by the certification body, and repeat all exam elements required for initial certification.

The validity of the new certificate shall not exceed 5 years, counting from the end of validity of the original certificate.

If the individual does not meet the continued activity requirements referred in 8 c) he or she shall complete all elements of the initial examination.

9.2 Level 3

Levels 3 certificate holders seeking recertification shall:

a) meet the criteria for renewal specified in 8. a), b) and c);

and according to candidates' option:

b) take a written exam (Level 3) or satisfy the requirements of the Structured Credit System, in accordance with Standard EN ISO 9712 (see Mod.CER.125, available on the RELACRE/OCP website). In both cases, the certified individual shall provide documented evidence of continued practical activity in the method in question (current Level 2 certification, statement from the employer/supervisor or test reports carried out by the individual) or pass a practical Level 2 exam (minimum of 70% in each specimen tested), for the required sector and method, excluding the preparation of the NDT instruction.

9.2.1 Structured Credit System

Where a candidate elects to use the structured credit system, he or she shall provide evidence to the certification body to demonstrate achievement of a minimum of 100 points over a 5-year period, based on the requirements in Annex 1 and in accordance with the following:

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- a minimum of 50 and a maximum of 70 points for any combination of activities listed in part A of Table in Annex 1; and
- a minimum of 30 and a maximum of 50 points for any combination of activities listed in part B of Table in Annex 1.

If the requirements of the Structured Credit System are not met, the individual can take the Written Exam (9.2.2). If failed, one repetition of the exam is allowed, within 12 months from the date of requesting recertification, via the Credit System.

9.2.2 Written examination

Where a certificate holder elects to take the written examination or does not meet the Structured Credit System requirements, he or she shall successfully complete an examination that includes:

- a) a minimum of 20 multiple-choice questions on the application of the test method in the sector(s) concerned which demonstrates an understanding of current NDT techniques, standards, codes or specifications, and applied technology (Part E of Main Method Examination); and
- b) a minimum of 10 multiple-choice questions on the requirements of the certification body's certification scheme (Part B of Basic Examination, consultation allowed).

If the individual fails to achieve a grade of at least 70 % in any of the above-mentioned exams, a maximum of two retests of the recertification examination shall be allowed. The maximum time within which all tests are to be taken shall be 12 months from the date of the first recertification exam. Failure in these repetitions implies additional training to be accepted by the certification body and sitting a new Main Method Exmination.

If recertification requirements are completed after the certificate's expiration date, the new certificate's expiration date is the date all requirements are met. In this case, there is an interruption in the certification period and the expiration date of the new certificate is established from the previous certificate expiration date.

The new certificate shall only be sent after payment of all fees related to the Recertification process.

10 CERTIFICATE TRANSFER

REACRE/OCP may accept the transfer of certificates issued, in accordance with ISO 9712, by another certification body provided that:

- the certification body is accredited according to ISO/IEC 17024 standard, by an entity covered by EA ("European Accreditation") or IAF ("International Accreditation Forum") mutual recognition agreements, for the certification of persons;
- the certificate is in force and the scope corresponds to one of the scopes offered by RELACRE/OCP (method, level and sector);
- the requirements of 10.1 or 10.2, as applicable, are met.

10.1 Issue of Certificate requirements

The candidate seeking certificate transfer shall submit the following documents:

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- Copy of the current certificate and, if not included in the certificate, contact details or website of the certification body that issued the certificate;
- b) Copy of training certificates/ records;
- c) Copy of Evidence of Experience included in the initial certification process;
- d) Grades obtained in each exam part, in the initial certification process and, if applicable, in the last recertification or renewal process by exam.

The previous documents may be replaced by a written statement from the certification body, declaring compliance with all requirements necessary for granting certification.

RELACRE/OCP will analyze the received documentation and, if necessary, will request further information or contact the initial certification body.

The candidate shall also comply with the following requirements, according to the applicable Level or the requirements of section 8 (**Renewal**) or 9 (**Recertification**), depending on the applicable cycle phase.

10.1.1 Levels 1 and 2

The candidate shall submit evidence of compliance with vision requirements (see 5.1) and successfully pass the following exam parts:

- Practical Examination;
- Written NDT Instruction (only for Level 2).

10.1.2 Level 3

The candidate shall submit evidence of compliance with vision requirements (see 5.1) and successfully pass the following exam parts:

- Part B of Basic Examination:
- Part F of Main Method Examination;
- Practical Level 2 Examination (if no valid Level 2 certification is in force).

11 REFERENCES

- DDE-CER-001: Requisitos Gerais do Processo de Certificação de Pessoas [General requirements for certification of persons]
- EN ISO 9712:2022: Non-destructive testing Qualification and certification of NDT personnel
- Diretiva 2014/68/UE Equipamentos sob pressão
- Decreto-Lei n.º 111-D/2017, de 31 de agosto Equipamentos sob pressão [pressure vessels/ equipment]
- ISO/TS 25107: Non-destructive testing Guidelines for NDT training syllabuses
- ISO/TS 25108: Non-destructive testing NDT personnel training organizations
- ISO 20807: Non-destructive testing Qualification of personnel for limited applications of nondestructive testing
- PE.CER.012 Reconhecimento de Cursos de Formação para acesso à Certificação de Técnicos de Ensaios Não Destrutivos [Acceptance of training courses for NDT qualification purposes]
- D.CER.024 Requisitos Aplicáveis à Realização da Parte Prática de Ultrassons (Níveis 1 e 2) Peças Forjadas ou Fundidas [Ultrasonic Practical Examination Requirements – Levels 1 and 2 / Forged or Cast Specimens]

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- D.CER.025 Requisitos Aplicáveis à Realização da Parte Prática de Medição de Espessuras [Ultrasonic Thickness Measurement Practical examination requirements]
- Mod.CER.074 Atestado de Acuidade Visual END [Visual Acuity Report]
- Mod.CER.077 Declaração de Atividade Continuada de Técnico END [Continued Activity Record]
- Mod.CER.079 Solicitação da Renovação da Certificação ou Recertificação na área "Ensaios Não Destrutivos" [Renewal or Recertification Application Form]
- Mod.CER.125 Sistema Estruturado de Créditos [Recertification Credit System]

12 DOCUMENT AMENDMENTS

Edition	Date	Amendments
01	2007-07-26	1st Edition of the Document.
02	2008-06-11	Inclusion of "Materials" sector and adjustment to the conditions of Level 3 exams (sections 4.2.1 and 4.2.2).
03	2009-06-04	Change in wording to harmonize with DDE-CER-003 and in 9 (Recertification).
04	2011-03-01	Inclusion of Limited Application Methods (Thickness Measurement and Radiographic Interpretation) and the Visual Inspection Method. Change in the duration of RT and UT practical exams (section 4.1).
05	2012-09-24	Full content review considering the publication of EN ISO 9712:2012 standard.
06	2014-06-09	Inclusion of 3.2.1; 3.3.1; 6.4 and 6.5. Renumbering of chapters, given the inclusion of chapter 6 of Ed. 05, in chapter 5. Change in exam duration (4.1).
07	2016-09-22	Amendment of 6.5; 7 and 8.
08	2019-05-23	Sub-division of chap. 1 in: 1. Introduction and 2. Scope; renumbering of the following chapters and cross-references; change of name of the chapter. 4; amendment to 4.3.1 – conditions for accessing the exam without full experience; amendment to 7; change of chapters. 8 and 9; elimination of chapter 9 - Transition period; new chapter 10 - Reduction or extension of the scope of certification; change of chapter 11.
09	2021-09-01	Amendment to 5.1 – elimination of the radiological safety examination and all references to this examination, contained in the following points.
10	2023-12-06	Full review of document taking into account the new version of EN ISO 9712:2022 standard.

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13 ANNEXES

13.1 Annex 1 – Structured Credit System

Renewal Levels 1, 2 e 3 e Recertification Level 3

Part A

Item	Activity	Level	Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity
1	Performance of NDT Activities	Level 1	2 / day	25	95
		Level 2			
		Level 3			
2	Completion of theoretical training in the method	Level 1	1 / day	5	15
		Level 2			
		Level 3			
3	Completion of practical training in the method	Level 1	2 / day	10	25
		Level 2			
		Level 3			
	Delivery of practical or theoretical training in NDT in the method considered	Level 1	Not applicable	Not applicable	Not applicable
		Level 2	1 / day	15	75
		Level 3			
	Participation in research activities in NDT field or for engineering of NDT	Level 1	1 / week	15	60
		Level 2			
		Level 3			

Note: Years of activity are counted from the certificate's validity start date.

For item 1, the following activities are considered valid: checking operating conditions, adjusting equipment, carrying out tests, supervising NDT certificate holders, participating in proficiency tests, NDT examiner, preparing procedures (only for Level 3) and any other described in 4, according to the level in question.

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Part B

Item	Activity	Level	Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity
	Participation to a technical seminar/paper in the field of the method or technique	Level 1	1 / day	2	10
		Level 2			
		Level 3			
	Presenting a technical seminar/ paper in the field of the method or technique	Level 1	1 / presentation	3	15
		Level 2			
		Level 3			
8	Current individual membership in NDT or NDT related society	Level 1	1 / membership	2	5
		Level 2			
		Level 3			
9	Technical oversight and mentoring of NDT personnel/ trainee in the relevant method	Level 1	Not applicable	Not applicable	Not applicable
		Level 2	2/ mentee	10	30
		Level 3			40
10	Participation or convenorship in standardization and technical committees	Level 1	Not applicable	Not applicable	Not applicable
		Level 2	1 / committee	3	15
		Level 3		4	20
111	Performing a technical NDT role within a certification body	Level 1	Not applicable	Not applicable	Not applicable
		Level 2	· 2 / activity	10	30
		Level 3			40

Note: Years of activity are counted from the certificate's validity start date.

Regarding item 9, at least 5 test reports shall be sent per year, with evidence of supervision of the intern/ apprentice to award 2 points per year.

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