NDT PERSONNEL APPLICATION GUIDE

Per CAN/CGSB-48.9712-2022

cwbgroup

Form 500/2025-02

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1 INTRODUCTION

Canadian Welding Bureau NDT Certification Body (CWB NDT CB) is a national, independent and not-for-profit entity acting as a certification body for NDT certification and recertification of personnel in accordance with CAN/CGSB-48.9712-2022.

The purpose of this guide is to inform individuals and existing certified NDT personnel who are looking to certify, renewing their certification or recertifying to the CAN/CGSB-48.9712-2022 through CWB's NDT Certification Body's Certification Scheme. This guide only applies to applications being evaluated and examined by CWB NDT CB and may not apply in-part or in-full to other certification schemes adhering to CAN/CGSB-48.9712-2022.

Contact Information:

Toll-free Help Line: 1-800-844-6790

Email: info@cwbgroup.org

2 CERTIFICATION INFORMATION

2.1 LEVELS OF NDT CERTIFICATION

Below are the expected competencies for each level of certification, additional competencies relating to the method/sector of the certification may also apply.

2.1.1 Level 1 – NDT Certification

To be eligible for a Level 1 NDT Certification, a candidate must demonstrate competence to carry out NDT according to written instructions and under the supervision of Level 2 or Level 3 personnel. Within the scope of the competence specified 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;
d) 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.

2.1.2 Level 2 – NDT Certification

To be eligible for a Level 2 NDT Certification, a candidate must demonstrate competence to perform NDT according to NDT procedures or NDT instructions. Within the scope of the competence specified 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) specify 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 and mentoring for personnel at or below Level 2;
i) report the results of NDT.

2.1.3 Level 3 – NDT Certification

To be eligible for a Level 3 NDT Certification, a candidate must demonstrate competence to perform and direct NDT operations for which they are certified. Level 3 personnel have demonstrated:

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;
c) a general familiarity with other NDT methods.

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

a) establish, review for editorial and technical correctness, and validate NDT instructions and procedures;
b) interpret standards, codes, specifications, and procedures;
c) designate the particular test methods, procedures, and NDT instructions to be used;
d) carry out and supervise all tasks at all levels;
e) provide guidance and mentoring for NDT personnel at all levels.

2.2 METHODS OF TESTING FOR CERTIFICATION

Within the scope of CWB's certification scheme, the following are the current methods and levels available for certification under CAN/CGSB-48.9712-2022:

a) Penetrant Testing (PT), Levels 2 and 3
b) Magnetic (Particle) Testing (MT), Levels 2 and 3
a) Ultrasonic testing (UT), Levels 1, 2 and 3
b) Radiographic Testing (RT), Levels 1, 2 and 3
c) Eddy current Testing (ET), Levels 1, 2 and 3

Additional methods and/or levels may be added in the future.

2.3 SECTORS OF NDT CERTIFICATION

Currently, there is only the EMC sector being offered by CWB, as below. Additional sectors may be added in the future.

2.3.1 EMC

The Engineering, Materials and Components (EMC) Sector includes manufacturing, fabrication, construction, and general inspections in Canadian industry. Below are the areas of products and industry it covers.

- Castings and forgings, composed of ferrous or non-ferrous metallic alloys
- Extrusions of shapes and seamless tubing composed of ferrous or nonferrous metallic alloys
- Wrought product that has been rolled to form plates, blooms, bars or rods and composed of ferrous or nonferrous metallic alloys
- Welds including brazing or soldering that is utilized during fabrication of ferrous or nonferrous metallic alloys
- Composite materials concrete, plastics, and ceramics

3 CERTIFICATION PROCESSES

3.1 CANDIDATE RESPONSIBILITY

Candidates seeking certification are required to successfully complete both written and practical examinations in the relevant NDT method and sector.

Candidates are expected to complete their qualification and certification within five years from the date of examination. If a candidate has not finalized their certification after five years from the first examination date or has failed a second retest, they will be required to retake all examinations as a new candidate. Exceptions may be granted by the CWB under exceptional circumstances, but candidates may be required to retake the practical exam.

For any certification application, candidates shall:

a) provide documentary evidence of training from an RTO;
b) provide documentary evidence that the required industrial experience has been gained under supervision;
c) provide documentary evidence of acceptable visual acuity;
d) abide by the code of conduct published by the certification body;
e) provide other requisites requested by the certification body.

The applicant must provide a verified and recent passport size, quality photograph with applications for initial certification and recertification. The photograph will be provided to CWB electronically.

The candidate is also responsible to review CWB's latest Authorized Exam Centre (AEC) and/or Recognized Training Organization (RTO) lists available on the CWB website to ensure they are familiar with the availability of exams and/or training in their region. Note that currently, training from any CGSB RTO from the past 10 years is valid (see 3.2.2).

3.2 INITIAL NDT CERTIFICATION PROCESS

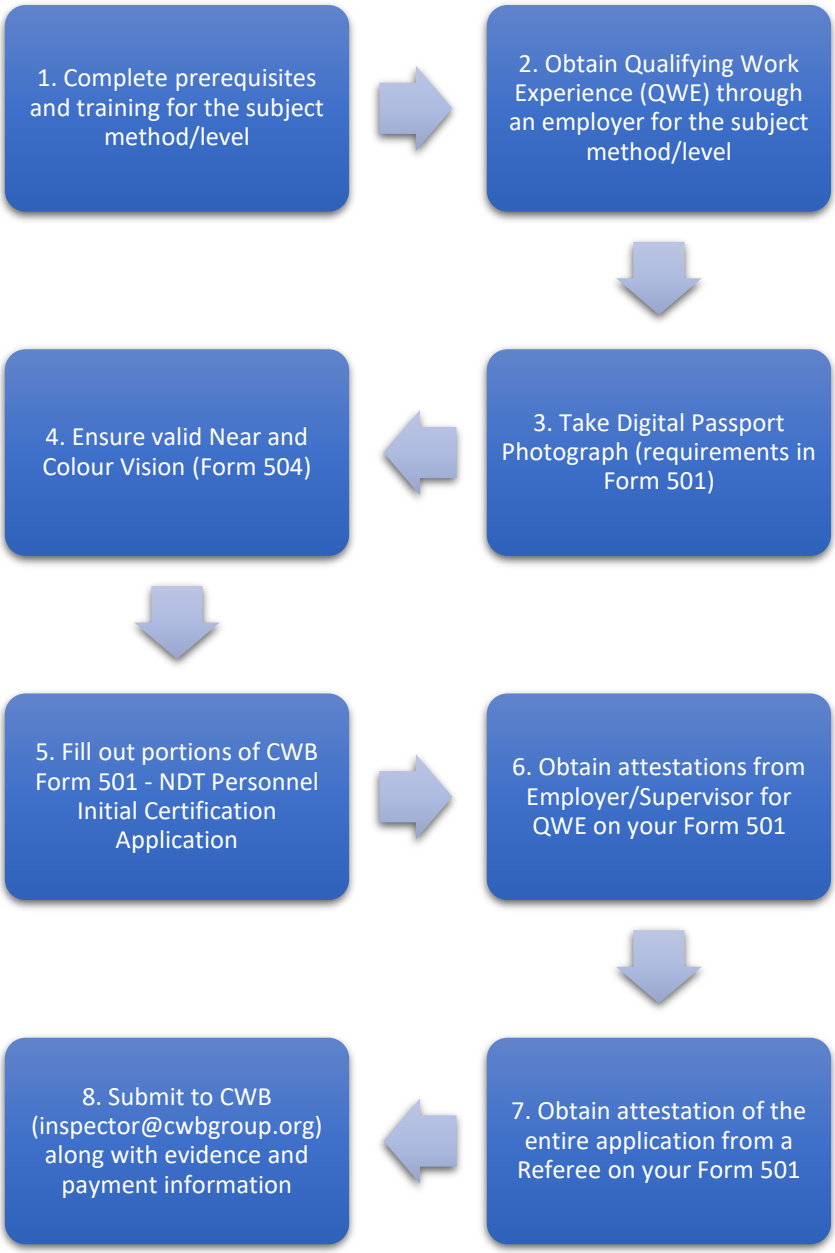
The basic eligibility requirements for Initial NDT Certification are:

a) Satisfactory vision per the standard requirements.
b) Adequate training from a Recognized Training Organization (RTO).
c) Satisfying the minimum industrial NDT experience.
d) Passing the certification written and practical examinations.
e) Has reached the age of majority in their province of residence.

Form 501 - "NDT Personnel Application Form for Initial Certification" will need to be filled out and submitted to CWB NDT CB to initiate this process. Forms are available in Annex B, on the CWB website or by contacting CWB.

Current inspectors that would like to upgrade to a higher Level or attain an additional method will need to go through the initial certification process and complete the steps indicated above.

Typical Application Process:



3.2.1 Vision Requirements

Candidates and certificate holders shall maintain and provide documentary evidence of acceptable vision in accordance with the below requirements.

3.2.1.1 Near Vision Acuity

Prior to certification, and annually thereafter, near vision acuity shall be verified to be in accordance with the requirements of ISO 18490 or shall permit reading a minimum of Jaeger number 1 or Times Roman N4.5 or equivalent letters at not less than 30 cm with one or both eyes, either corrected or uncorrected.

Annual (every 12 months) testing and maintenance of records of the near vision acuity is the responsibility of the certificate holder and/or the employer. CWB NDT CB may ask for evidence of annual verification during renewal or recertification.

3.2.1.2 Colour Vision

Prior to certification, recertification or renewal, the candidate/certificate holder shall demonstrate that a colour vision test has been administered within the previous 5 calendar years.

It is required that colour vision and/or grey scale perception be sufficient for the individual to be able to distinguish and differentiate between the colours or shades of grey used in the NDT methods/techniques concerned as specified by the employer.

The colour vision test shall either confirm that the individual has acceptable colour vision without restriction or shall state any limitation(s) on colour perception.

Where any limitation in colour perception exists, the employer shall confirm whether or not this condition results in any limitation(s) to method or application specific techniques.

3.2.1.3 Personnel Administering Vision Tests

Near vision acuity testing, colour vision and/or grey scale perception verification(s) shall be administered by a licensed physician, nurse, ophthalmologist, or optometrist.

In lieu of a licensed physician, nurse, ophthalmologist, or optometrist, another trained professional who is approved and documented by a CGSB Level 3 personnel acting on behalf of the employer may be accepted by CWB NDT CB if the CGSB Level 3 personnel signs off on the test(s). Additional documentation for approval completed by CGSB Level-3 personnel shall be included with Vision Test form.

3.2.1.4 Vision Acuity Form

The CWB Vision Acuity Form is required to document the near vision and colour vision tests for examinations, initial certification, renewal and recertification. The form requires sign-off by the medical professional or Level 3 personnel approving the employer-based testing per 3.2.1.3. CWB recommends the use of the form to document the required annual near vision testing. Forms are available on the CWB website or by contacting CWB per 1.

3.2.2 Training Requirements

3.2.2.1 Recognized Training Organizations (RTO)

CWB NDT CB recognizes, through a formal process, organizations that have specific criteria for delivering high quality, NDT focused training that is aligned with the requirements of CAN/CGSB-48.9712-2022, and approval as per CWB's certification and qualification procedures.

The list of Recognized Training Organizations (RTO) is published on CWB's website or can be obtained by contacting CWB directly. Summary of RTOs along with approved NDT methods and levels are listed on the website. The individual RTOs will have more information on the qualified programs and courses that are available.

3.2.2.2 Prerequisites

3.2.2.2.1 Math Skills Pre-Screening

To ensure that prospective candidates have sufficient mathematics background to be successful as a certified NDT personnel, RTOs will administer a math-skill examination prior to providing NDT training. This prerequisite is for training only and not required to be submitted for certification purposes.

3.2.2.2.2 Materials & Processes (M&P) Course

To ensure candidates have a background in the theoretical knowledge in relation to all NDT methods, the RTOs will deliver a (minimum 32-hour) course in materials and processes. Applicants must have a grade of 70% or above to pass the materials and processes examination.

3.2.2.2.3 Radiation Safety Training (RT Only)

The individual applying for radiography is required to undergo a minimum of 8 hours of radiation safety training, delivered by an RTO. The training should align with an established radiation safety syllabus. There is no requirement for a final course examination. Applicants who hold a valid CNSC EDO certification are deemed to have already fulfilled the Radiation Safety Training requirement.

3.2.2.3 Minimum Training Durations

Programs or courses designed to comply with CWB NDT Personnel Certification must satisfy the minimum duration requirements per CAN/CGSB-48.9712-2022. The table below describes the minimum training durations in days for current methods/levels. One day duration is at least seven hours, which can be achieved on a single day or by accumulating hours.

Table 1 – Minimum Training Requirements

NDT Method	Level 1 (days)	Level 2 (days)	Level 3 (days)
PT	N/A	5	3
MT	N/A	5	4
UT	8	10	5
RT*	5	10	5
ET	5	6	6

*Does not include radiation safety training.

Additionally, CWB requires that 40% of the training days specified above be practical training where hands-on learning is prioritized. The balance (60%) may be theory-based training.

3.2.2.4 Reductions For Training

No current reductions in training time are offered.

3.2.3 Industrial NDT Experience

Industrial NDT experience (also known as Qualifying Work Experience or QWE) is vital to ensuring that candidates can apply and refine the knowledge gained in training to real-life practical situations. The candidate must indicate on Form 501 if they possess full, partial or no experience.

3.2.3.1 Minimum Durations

3.2.3.1.1 Prior to Examinations

CWB *encourages* applicants to consider completing some or all their industrial NDT experience prior to attempting practical examinations to allow time to practice hands-on processes to increase chances of success.

The current requirements of minimum durations of industrial NDT experience prior to attempting exams are as below. Direct access means challenging the method and level without prior certification in that method.

For Written Examinations:

- Level 1: 0%
- Level 2: 0%
- Level 3 direct access with higher education: 40%

For Practical Examinations:

- Level 1: 0%
- Level 2: 0%
- Level 3 direct access with higher education: 40%

These percentages apply to the minimums listed in Table 2 and may be subject to change. For example, minimum Industrial NDT Experience prior to attempting the UT Level 3 exam for direct access with higher education (per 3.2.3.2.2) would be 40% of 540 days = 216 days.

3.2.3.1.2 Minimum NDT Industrial Experience

Below is the minimum duration of qualifying work experience (QWE) that is required to attain certification for each NDT method and level. If a part of the experience is sought following successful examination, the results of the examination shall remain valid for a maximum of five years. Documented evidence of experience shall be confirmed by the employer and referee and submitted with application.

Table 2 - Minimum Industrial Experience (in Days)

NDT Method	Level 1	Level 2		Level 3		
		With Level 1	Direct Access	Higher Education with Level 2	With Level 2	Direct access with higher education
ET, RT, UT	45	135	180	270	450	540
MT, PT	-	-	60	180	240	360

*One day duration is at least seven hours, which can be achieved on a single day or by accumulating hours. The maximum allowable hours in any one day is 12 hours. Experience in days is achieved by dividing the total accumulated hours by 7.

3.2.3.1.3 Experience when adding an additional sector/technique of the same method

If a candidate wishes to add an extra sector or technique to their NDT method certification, they must acquire and provide evidence of having gained additional experience of at least 25% (but not less than 15 days) of the necessary experience for the given method from Table 2. This experience must be directly related to the relevant sector/technique.

3.2.3.2 Possible reductions For Industrial NDT Experience

As described hereafter, the possible reductions in duration of experience requires acceptance by CWB NDT CB.

3.2.3.2.1 Structured Experience Program (SEP)

Up to 50 % of the industrial experience time may be achieved by a structured experience program (SEP). Any program will be maximum 5 days for each method, level, and sector. One day of attendance at the SEP is equivalent to five days industrial experience (maximum 25). The SEP shall include all typical tasks (see Clause 2.1) of the level, method and sector concerned. The intent is to gain specific product and technique knowledge. The SEP shall be administered by a RTO.

For a Level 1 application for volumetric methods (UT, RT, ET) up to 22.5 days of experience gained via the SEP can be counted towards total industrial experience.

3.2.3.2.2 Experience for Higher Education for Level 3

A degree or diploma in engineering or materials science from a post-secondary institution can be used to qualify for a reduction in the minimum industrial experience hours required for Level 3 certification. Candidates must provide a copy of their degree or diploma as proof of their education to the CWB NDT CB. This proof should be included with their submission of work experience.

3.2.3.2.3 Adding an additional method:

A certified Level 1, 2, or 3 adding an additional method as stated below, is permitted a reduction of minimum industrial experience by 25% for that additional method:

- Level 2 - MT2, PT2
- Level 3 - All methods

No reduction in experience for adding new methods for:

- Level 1 - All methods
- Level 2 - UT, RT, ET

3.2.3.3 Employer/Supervisor Attestation Requirements

Employers/Supervisors must have direct influence and knowledge of the candidate's work and is ideally a certified individual per CAN/CGSB-48.9712-2022, of a higher level for the subject method being applied to by the candidate. If the supervisor is not a certified NDT personnel, they should possess the knowledge, skill, training, and experience required to properly perform such supervision. CWB may ask for additional documentation of qualifications of the supervisor during the review process.

Employer/Supervisor attestations are required for ANY work experience or work activity submitted.

3.2.3.4 Referee Attestation Requirements

A referee must be actively certified to Level 2 or 3 under CAN/CGSB-48.9712-2022 **in the same method that the candidate is applying for** and must attest to the entire application for the candidate's necessary knowledge, skill, training, and experience to be certified, renew their certification, or to recertify.

Applications with partial and full work experience require a referee's attestation for processing. Those that are applying for examinations without Industrial NDT Experience are not required to have a referee

attestation until work experience is gained and submitted as part of the referee's review of their application.

3.2.3.5 Photograph Requirements

CWB requires a digital photo for the purposes of identification and as part of the certificate/cards. A digital photograph is required for initial certifications and recertification and is *optional* for renewal (unless the renewal is for a certificate from another CGSB NDTCB).

CWB requires that the **digital** photos be as specified below (like a ***digital* passport photo**) and attached to your application or emailed to **inspector@cwbgroup.org**:

- must be taken in person by a professional photographer no more than 6 months before the date you submit your application
- face and shoulders centered and squared to the camera with a neutral face expression
- uniform lighting with a plain white or light background with a clear difference between your face and the background
- chin to crown (top of your head) should be between 45 to 50% of the photo's height
- photographs with sunglasses, tinted glasses, hats or any self-taken photographs are **not permitted**.
- must be in JPEG format in colour or black and white saved directly from the original file (no scans or any altering)
- must have a 2:3 aspect ratio (portrait), be at least 1800 pixels high by 1200 pixels wide and no larger than 4500 pixels high by 3000 pixels wide.
- File size must be between 200kb and 4MB in size, maximum two photos per submission.
- Additional photos may be requested if they do not meet the criteria.

3.2.4 Initial Certification Examinations

Arrangement of examinations for initial certification requires the minimum to be submitted:

1. Completion of the NDT Personnel Initial Certification Application (Form 501)
2. Acceptable Near Vision and Colour Vision (CWB NDT CB Vision Acuity Form 504) per 3.2.1.
3. Acceptable training evidence per 3.2.23.2.2.

The candidate can choose to take the examinations prior to fully completing the Industrial NDT experience, provided the above is completed and acceptable. It is encouraged that candidates complete all their Industrial NDT Experience prior to attempting the practical exams to increase their chances of success. Those that are applying for examinations without Industrial NDT Experience are not required to have a referee attestation until work experience is gained and submitted as part of the referee's review of their application.

The initial submission will be reviewed by CWB NDT CB for vision and training acceptability along with a review of the application for completeness and submitted Industrial NDT Experience. If acceptable, an exam admittance email will be sent to the candidate indicating the exams that they are allowed to take. The candidate will have a choice of Authorized Exam Centres (AECs) to take their written and practical exams, the list of these AECs will be published on CWB's website. The candidate will be required to contact the AEC directly for booking information for the exams and will be charged fees for invigilation/facility use for the examination by the AEC.

For an initial certification examination, if the candidate fails to obtain the pass grade (70% or higher) for any examination section, they may seek re-examination up to two times in the failed sections, provided that the re-examination takes place not sooner than one month and after further training acceptable to the certification body is satisfactorily completed. The re-examination shall be completed within two years after the original examination. Applicants who fail the second re-examination shall be required to complete all examinations as for a new candidate.

3.2.4.1 Arrangement of Examinations

If acceptable, an exam admittance email will be sent to the candidate indicating the exams that they are allowed to take. The candidate will have a choice of Authorized Exam Centres (AECs) to take their written and practical exams, the most current list of these AECs will be published on CWB's website or available upon request. The candidate will be required to contact the AEC directly for booking information for the exams and will be charged fees for invigilation/facility use for the examination by the AEC.

3.2.4.2 Examination Accommodations

Any candidate that may require accommodations of special needs should contact CWB directly per Section 1 to discuss. CWB will strive to accommodate needs within reason.

3.2.4.3 Exam Confidentiality

All candidates must review in detail and accept the examination confidentiality agreement prior to beginning any examination. The agreement must be strictly followed to ensure the security of the examination system. Any violation of the agreement will result in disciplinary action and may lead to banning from all CWB certifications.

3.2.4.4 Examination Conduct

At the examination, the candidate shall have in their possession valid proof of identification and an official notification of the examination, which shall be shown to the examiner or invigilator prior to the exam.

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 shall be excluded from all further examinations for a period of at least one year.

Candidates shall not be permitted to bring into the examination area any personal items, unless specifically authorized to do so by the examiner.

3.2.4.5 Examination Details

Details of each examination are summarized below and detailed by method in Annex A.

3.2.4.5.1 Level 1

Examination requirements for Level 1 certification comprise of a:

- General Examination Element
- Specific Examination (EMC sector) Element
- Practical Examination Element

3.2.4.5.1.1 General Examination Level 1

This examination tests the applicant's knowledge of the theory and general applications of the particular NDT method at Level 1. This exam consists of multiple-choice questions.

- UT/RT/ET: 40 multiple-choice questions
- Duration: 2 minutes per question
- Passing Mark: 70%

3.2.4.5.1.2 Specific Examination Level 1

This examination tests the applicant's knowledge of the Industrial Sector and the application of the NDT method to the EMC sector. This exam consists of multiple-choice questions.

- UT/RT/ET: 40 multiple-choice questions
- Duration: 3 minutes per question
- Passing Mark: 70%

3.2.4.5.1.3 Practical Examination Level 1

This examination requires the practical application of the NDT method (UT/RT/ET) to the EMC sector. The Practical Examination may include any or all of (but is not limited to) the following requirements:

- Detailed description and illustration of the equipment set-up and/or test procedure and test parameters for a particular application.
- The recognition and identification of discontinuities as shown by the test and which includes general knowledge of the mechanism giving rise to the discontinuities.
- Accurate reporting concerning geometry, location and sizing revealed by the test procedure.

3.2.4.5.2 Practical Examination Duration and Assessment:

- UT/RT/ET: 8 hours maximum
- A minimum pass mark of 70% is required for each specimen.

Applicants who fail to report discontinuities nominated for mandatory detection will not be granted a pass in the practical examination.

Applicants who report excessive false calls (reporting of non-existent discontinuities) will not be granted a pass in the practical examination.

Applicants who fail to comply with specific code compliance areas will not be granted a pass in the practical examination. Examples include failure to comply with:

- Minimum reporting requirements (all methods)
- Scanning techniques and coverage (UT)

3.2.4.5.3 Level 2

Examination requirements for Level 2 certification comprise of a:

- General Examination Element
- Specific Examination Element
- Practical Examination Element
- NDT Instruction Writing Element

3.2.4.5.3.1 General Examination - Level 2

This examination tests the applicant's knowledge of the theory and general applications of the particular NDT method at Level 2. This exam consists of multiple-choice questions.

- All Methods: 40 multiple-choice questions
- Duration: 2 minutes per question
- Passing Mark: 70%
- Candidate shall be required to pass Radiation Safety exam if not done previously at Level 1.

3.2.4.5.3.2 Specific Examination - Level 2

This examination tests the applicant's knowledge and the application of the NDT method to the Industrial Sector (EMC). This exam consists of multiple-choice questions.

- PT/MT: 50 multiple-choice questions
- UT/RT/ET: 70 multiple-choice questions
- Duration: 3 minutes per question
- Passing Mark: 70%

3.2.4.5.3.3 Practical Examination Level 2

This examination requires the practical application of the NDT method to the Industry Sector (EMC) for which application is made. The Practical Examination may include any or all of (but is not limited to) the following requirements:

- Detailed description and illustration of the equipment set-up and/or test procedure and test parameters for a particular application.
- Interpretation of radiographs, where applicable.
- The recognition and identification of discontinuities as shown by the test and which includes general knowledge of the mechanism giving rise to the discontinuities.
- Accurate reporting concerning geometry, location and sizing revealed by the test procedure.
- Writing of an instruction in the NDT method and product/industry sector for a Level 1 operator.

The minimum passing mark for the practical part is 70% for each specimen tested, image interpreted (RT) and work instruction.

Practical Examination Duration and Assessment:

- PT: 4 hours maximum
- MT: 8 hours maximum
- UT/RT/ET: 20 hours maximum
- A minimum pass mark of 70% is required for each specimen and section.
- Practical examinations are broken into sections, for example, the radiography practical exam consists of 3 sections:
    - Inspection and reporting of minimum 2 specimens
    - Development of Work Instruction
    - Interpretation of 12 Films

Applicants who fail to report discontinuities nominated for mandatory detection will not be granted a pass in the practical examination.

Applicants who report excessive false calls (reporting of non-existent discontinuities) will not be granted a pass in the practical examination.

Applicants who fail to comply with specific code compliance areas will not be granted a pass in the practical examination. Examples include failure to comply with:

- Geometric Unsharpness (RT)
- Film density (RT)
- Minimum reporting requirements (all methods)
- Scanning techniques and coverage (UT)

3.2.4.5.4 Level 3

- The passing mark for all examinations is 70%.

3.2.4.5.4.1 Basic examination element

This written examination shall assess the candidate's knowledge of the basic subjects using the number of multiple-choice examination questions as shown below.

Table 3 — Minimum required number of basic examination element questions for Level 3

Item	Subject	Number of questions	Duration
A	Technical knowledge in materials, science and process technology.	70	3.5 hours
B	Knowledge of the certification body's qualification and certification system based on this document and CAN/CGSB.48-9712-2022.	10	
C	General knowledge of the four other methods currently offered for certification by CWB as required for Level 2.	60	

It is recommended that the basic examination element be passed first and remain valid, provided that the first main method examination element is passed within five years after passing the basic examination element. A candidate holding a valid Level 3 certificate is exempt from the need to retake the basic examination element.

3.2.4.5.4.2 Main method examination element

This written examination shall assess the candidate's knowledge of the main method subjects using the minimum required number of multiple-choice questions as shown below.

Table 4 — Minimum required number of main method examination element questions

Item	Subject	Number of questions	Duration
D	Level 3 knowledge relating to the NDT test method applied.	30	0.75 hr
E	Application of the NDT method in the sector concerned, including the applicable codes, standards, specifications, and procedures.	20	2 hrs
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 candidate. For a candidate who has already drafted an NDT procedure in a successfully passed Level 3 examination, the certification body may replace the drafting of a procedure with the critical analysis of an existing NDT procedure covering the relevant method and sector and containing errors and/or omissions.	—	4 hrs for drafting 1.5 hrs for review only

3.2.4.5.4.3 Practical Examination Element

All candidates for Level 3 certification in any NDT method shall have successfully passed the practical examination element for Level 2 in the relevant sector and method within the previous 10 years. A candidate who is Level 2 in the same NDT method and product sector or who has successfully passed a Level 2 practical examination element for the NDT method in the relevant sector, is exempt from passing again the Level 2 practical examination element. This exemption is only valid for the sector in which the candidate seeks Level 3 certification.

Candidates who apply for Level 3 and have not completed a Level 2 Practical Exam within the past 10 years for the relevant method and sector they are applying for must successfully complete the Level 2 practical exam to obtain Level 3 certification.

3.2.4.5.4.4 Exemptions

If a certified Level 3 individual transitions to a different sector or adds another sector within the same NDT method, they are not required to retake the basic examination or the Level 3 main-method examination.

Additionally, candidates seeking Level 3 certification in multiple NDT methods are exempt from the Basic Examination, provided they have successfully passed it during their first Level 3 application. Furthermore, the first Main Method Examination must be passed within five (5) years of passing the Basic Examination to maintain eligibility for certification in multiple methods.

3.2.5 CERTIFICATION AND EXPIRY

Consideration for certification requires successful completion of the examinations, submission of **all** Industrial NDT Experience and all requested documentation per the application form. CWB NDT CB may ask the candidate, their employer, supervisors, or referee for more information about the application, as required.

Vision tests must be valid at the time of certification. It is the responsibility of the candidate to ensure that the near vision and colour vision **meet the requirements prior to examination and also prior to issue of certification**. Candidates may be asked to submit a new visual acuity form before certification is issued.

A candidate who meets certification requirements shall be notified of their certification in the method(s) and level(s) and sector via email. Digital certificates shall be issued by email along with a wallet card via mail. The certification will be valid from the date of issue and up to 60 months (five years) from that date.

Certificate holders must inform the certification body, without delay, of matters that can affect the capability of the certified person to continue to fulfil the certification requirements.

Once a certification passes its expiry date, the personnel is no longer certified. Certified personnel must ensure that they renew/recertify prior to the expiry date and CWB may accept applications up to 12 months prior to the expiry.

3.3 RENEWAL AND CERTIFICATION

3.3.1 Renewal Process

Before the expiry of the first period of validity (i.e. 5 years from initial certification), certification may be renewed for an additional five years of validity by the following process (**Note: It is the responsibility of the certificate holder to initiate this process**):

a) documentary evidence of a satisfactory near vision acuity examination taken within the preceding 12 months; **and**
b) documentary evidence of a satisfactory colour vision and/or grey scale perception examination taken within the preceding 60 months; **and**
c) verifiable documentary evidence of continued satisfactory work activity without significant interruption in the method and sector for which certificate renewal is sought;

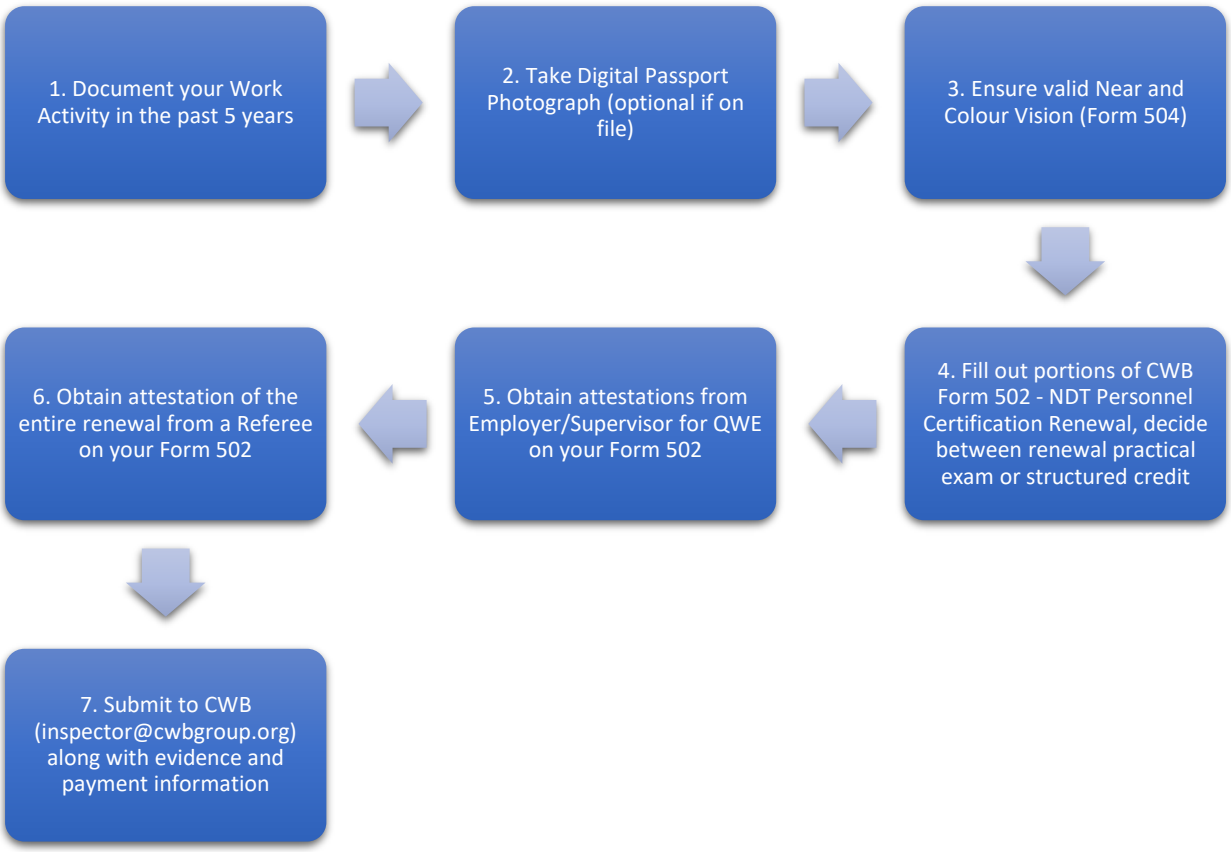
and either:

d) successful completion of a practical examination element in accordance with Section 3.2.4.5 except that it shall consist of a minimum of 50% of the examination specimens required; **or**
e) successfully meeting the requirements of the structured credit system as given in Section 3.3.4.

If the criterion c) for renewal is not met, the individual shall follow the same rules as for recertification.

Form 502 – “NDT Personnel Certification Renewal” would need to be completed and submitted to CWB prior to practical exam admittance or structured credit review. Forms are available in Annex B, on the CWB website or by contacting CWB. CWB would notify the candidate via email if they are successful, not successful, or additional information may be needed.

How to apply for renewal:



3.3.2 RECERTIFICATION PROCESS

Prior to the completion of each second period of validity (i.e. 10 years from initial certification), the certified individual shall be recertified by the certification body for a new period of five years or less, provided the individual produces (**Note: It is the responsibility of the certificate holder to initiate this process**):

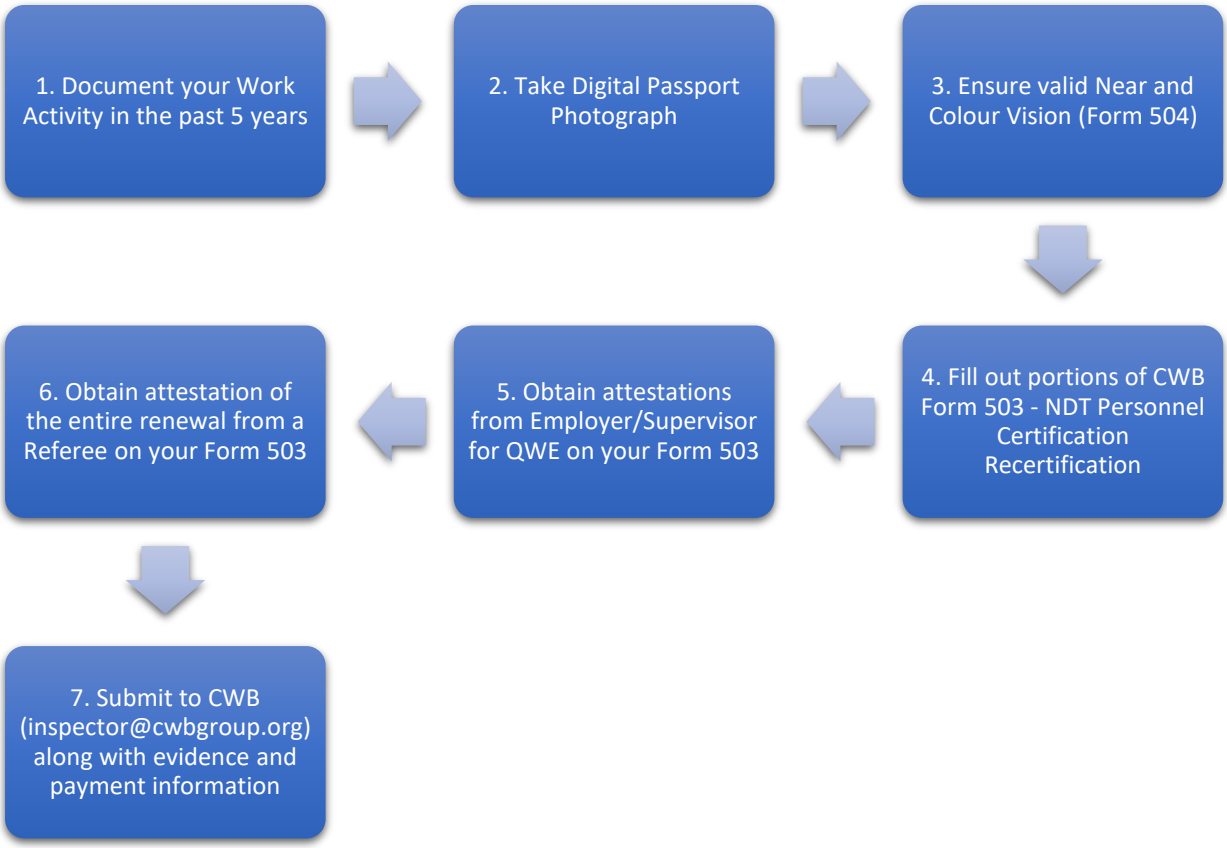
a) documentary evidence of a satisfactory near vision acuity examination taken within the preceding 12 months; and
b) documentary evidence of a satisfactory colour vision and/or grey scale perception examination taken within the preceding 60 months; and
c) verifiable documentary evidence of continued satisfactory work activity without significant interruption in the method and sector for which certificate renewal is sought; and
d) the practical examination requirements of 3.3.2.1 or 3.3.2.2.

It is the responsibility of the certificate holders to initiate the procedures required to obtain recertification, starting at 12 months before expiry. If the recertification is applied for more than 12 months after expiry of the period of validity, a complete examination (general, specific, and practical)

for Level 1 and Level 2 and a main method examination element for Level 3 shall again be passed successfully.

Form 503 – "NDT Personnel Recertification" would need to be completed and submitted to CWB NDT CB prior to practical exam admittance. Forms are available in Annex B, on the CWB website or by contacting CWB. CWB would notify the candidate via email if they are successful, not successful, or when additional information may be needed.

How to apply for recertification:



3.3.2.1 Levels 1 and 2 Practical Examination

The individual shall successfully complete the full practical examination element as per Section 3.2.4.5.

If the individual fails to achieve a grade of at least 70% for the practical examinations, two retests of the whole recertification examination shall be allowed after at least 7 days and within twelve (12) months of the first attempt at the recertification examination.

Applications for recertification may be submitted up to 6 months prior to the expiry date of the current certification. Expiry date of the recertified certificate will be 5 years from the expiry date of the renewal certification period.

Should the recertification formalities be completed after the expiry date of the existing certificate, the recertification certificate shall be issued on the date that the recertification formalities were completed.

In the event of failure in the two allowable re-examinations, the certificate shall be withdrawn. To reinstate certification, a candidate shall retake all examination elements required for initial certification.

The date of expiration of the reinstated certificate shall be no more than 5 years from the date of expiration of the original certificate.

In this case, no examination exemptions shall be awarded by virtue of any other valid certification held.

3.3.2.2 Level 3 Recertification

The individual will have a choice between the following:

a) satisfactory completion of the practical examination as required for level 2 and written examination consisting of a minimum 20 questions on the application of the test method in the sector(s) concerned (Main Method Examination Part E), demonstrating an understanding of current standards, codes or specifications and applied technology as well as 20 questions on the certification body's certification scheme (Basic Exam Part B), or;
b) satisfactory completion of a full practical examination as required for level 2 and meeting the requirements of a structured credit system.

The Structured Credit System and requirements for recertification is detailed in Section 3.3.4.

If the individual fails to achieve a grade of at least 70% in the recertification examination, a maximum of two retests of the recertification examination shall be allowed. The time period within which all tests are to be taken shall be 12 months, unless otherwise extended by the certification board.

In the event of failure in the two allowable retests, the certificate shall not be revalidated and, to regain certification for that sector and method, the candidate shall be required to achieve success in the appropriate main method examination.

3.3.3 Work Activity

To support the requirement to provide evidence of satisfactory work experience for renewal and recertification, CWB expects the candidate to explain their duties in detail related to the subject NDT method/level/sector.

The following work activities may be considered as acceptable based on the level and employer's responsibilities:

- knowledge and understanding of the customer's specifications and the inspection standards
- verification of operating conditions or setting up of the test equipment, successful performance of NDT, satisfactory reporting
- performance as a Level 3 examiner

To assess the activities, the certification body may request from the individual seeking renewal or Level 3 recertification documentation and/or evidence to demonstrate compliance including, but not limited to, the following:

- confirmation of the candidates work activities by a certified individual or referee
- confirmation of the level of activity of the individual in the given method
- confirmation of formal documented competency or proficiency test(s) in the given method
- dates and protocol numbers of reports
- details of any job specific training received
- confirmation of employer's authorization to operate
- summary of activities and outputs
- job/position description
- annual/regular employer assessments of performance/competence
- sample NDT reports
- sample procedure(s) developed (Level 3 only)
- customer feedback
- confirmation of adherence to code of ethics from employer
- confirmation of compliance with additional national requirements (i.e. radiation safety)

Other evidence may be deemed acceptable or be requested by the certification body. The certification body may require that some or all of the submitted evidence be confirmed by the employer.

The work activity must be verified by an employer or supervisor which has firsthand knowledge of the candidate's work.

3.3.4 Structured Credit System

The structured credit system is a point-based credit system where the activities performed by the candidate in the 5-year period are tallied to show that NDT personnel are actively participating in the maintenance of their skills and experience to support requirements for renewals at all levels or Level 3 recertification. Personnel must fill out the Structured Credit portion of the Renewal (Form 502) or Recertification (Form 503 for Level 3 only) with the tallied number of occurrences per certification year. Certification year shall be 12-month periods from issue date of the certificate.

Personnel must also submit documentary evidence for all of these activities (evidence of Work Activity submitted under 3.3.3 will be considered for Performance of NDT Activities), if the evidence requires submission of employer's documents, the individual shall provide to CWB a written statement of approval from the employer.

The table below (adapted from CAN/CGSB-48.9712-2022, Annex C) outlines the activities and points associated:

Table 5 – Structured credit system for renewal Level 1, 2 and 3 and for Level 3 recertification

		Level 1			Level 2			Level 3		
Item	Activity	Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity	Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity	Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity
	Part A									
1	**Performance of NDT Activities (see 3.3.3)**	2 / day	25	95	2 / day	25	95	2 / day	25	95
2	**Completion of theoretical training in the method**	1 / day	5	15	1 / day	5	15	1 / day	5	15
3	**Completion of practical training in the method**	2 / day	10	25	2 / day	10	25	2 / day	10	25
4	**Delivery of practical or theoretical training in NDT in the method considered**	N/A	N/A	N/A	1 / day	15	75	1 / day	15	75
5	**Participation in research activities in NDT field or for engineering of NDT**	1 / week	15	60	1 / week	15	60	1 / week	15	60
	Part B									
6	**Participation to a technical seminar/paper in the field of the method or technique**	1 / day	2	10	1 / day	2	10	1 / day	2	10
7	**Presenting a technical seminar/ paper in the field of the method or technique**	1 / presentation	3	15	1 / presentation	3	15	1 / presentation	3	15
8	**Current individual membership in NDT or NDT related society**	1 / membership	2	5	1 / membership	2	5	1 / membership	2	5
9	**Technical oversight and mentoring of NDT personnel/ trainee in the relevant method**	N/A	N/A	N/A	2 / mentee	10	30	2 / mentee	10	40
10	**Participation or convenorship in standardization and technical committees**	N/A	N/A	N/A	1 / committee	3	15	1 / committee	4	20
11	**Performing a technical NDT role within a certification body**	N/A	N/A	N/A	2 / activity	10	30	2 / activity	10	40

NOTE Where the term “year(s)” is noted in this table, this is specified as a certification year and not as a calendar year (ie. 12-month periods from issue date).

*See3.3.3 for specific details of this activity.

3.3.4.1 Renewal (All levels)

Where a candidate elects to use the structured credit system, they shall provide evidence to the certification body to demonstrate achievement of a minimum of 100 points in the 5-year renewal period based on the requirements of Table .

- Level 1 - a minimum of 75 of the 100 points is required for any combination of activities listed in Part A of Table
- Level 2 or 3 - a minimum of 50 of the 100 points is required for any combination of activities listed in Part A of Table

3.3.4.2 Recertification (Level 3 only)

Where a Level 3 certificate holder elects to use the structured credit system, they shall provide evidence to the certification body to demonstrate achievement of a minimum of 100 points in the five year recertification period based on the requirements of Table .

- a minimum of 50 and a maximum of 70 of the 100 points is required for any combination of activities listed in Part A of Table ; and
- a minimum of 30 and a maximum of 50 of the 100 points is required for any combination of activities listed in Part B of Table .

4 RE-EXAMINATIONS

The requirements for re-examinations are as follows:

1. A candidate failing for reasons of unethical behaviour shall wait at least 12 months before reapplying or as determined by CWB.
2. Fees for re-examinations must be paid prior to granting of a re-exam by CWB. AEC invigilation costs must be paid to the AEC directly.
3. For Initial Certifications:
    a) A candidate who fails one or more elements of an examination (i.e. general, specific, practical, etc.) may retake the failed examination no more than twice:
        i. after a minimum time of one month (which may be reduced if further training acceptable to the certification body has been satisfactorily completed)
        ii. no later than two years after the initial examination
    b) A candidate failing two re-examinations on one or more elements shall complete further training, acceptable to the CWB, and be required to retake all examination elements
4. For Renewals
    a) Two re-examinations of the renewal examination shall be allowed after at least 7 days and within 12 months of the first attempt at the renewal examination.
    b) In the event of failure in the two allowable re-examinations, the certificate shall be withdrawn. In order to reinstate certification, a candidate shall:
        i. complete further training, acceptable to CWB; and
        ii. retake all examination elements required for recertification.
5. For Recertifications:
    a) Two re-examinations of the recertification examination shall be allowed after at least 7 days and within 12 months of the first attempt at the recertification examination.
    b) In the event of failure in the two allowable re-examinations, the certificate shall be withdrawn. In order to reinstate certification, a candidate shall:
        i. complete further training, acceptable to CWB; and
        ii. retake all examination elements required for initial certification.
6. Practical Re-examinations:
    A person failing practical examination of a particular specimen needs only re-examination of that failed specimen, for example, with a UT2 EMC Practical Exam, a candidate achieves the following results:
    Element 1: Specimens
        - Specimen 1: 86%
        - Specimen 2: 90%
        - Specimen 3: 57%

    Element 2: Work Instruction
        - Grade: 75%

    Overall Result: **Fail**, as minimum of 70% in each specimen and section not achieved.
    Re-examination Required:
        - Re-examination of Element 1, Specimen 3.

The specimens to be re-examined as part of the practical examination element will be assigned by CWB and the time limit will vary depending on the number of specimens that need to be re-examined for the element.

5 LAPSED CERTIFICATIONS

The Canadian Welding Bureau (CWB) will strive to provide sufficient advance notice to certificate holders before their certification expires. **The responsibility for maintaining certification lies with the certificate holder, who should initiate renewal or recertification procedures well in advance of the expiration date.**

Employers grant the authority to operate as a certified NDT person, and if a certificate expires, the employer may disallow continued employment.

If a certificate holder continues working with an expired certificate without informing their employer or client, they bear full responsibility and may face disciplinary action.

Renewal and Recertification can be applied for up to 12 months after expiry, with a late renewal fee.

A certificate will be considered lapsed if more than 12 months have passed from the expiry date of the certification.

Once a certificate has lapsed:

- Renewal requires recertification examinations up to 2 years after expiration date
- Recertification requires completion of initial certification examinations up to 2 years after expiration date
- Beyond 2 years after the expiration date, a new initial certification application will be required for the expired subject/method

Renewal or recertification issued after expiry but before lapsing starts from the original certificate date (i.e. previous expiry date), results in a reduced certification period within the 5-year limits allowed by the standard.

6 SUSPENSION AND WITHDRAWAL OF CERTIFICATION

6.1 SUSPENSION OF CERTIFICATION

Certification may be suspended by CWB:

a) if the individual becomes temporarily physically incapable of performing their duties
b) if the individual fails to provide evidence of meeting the visual acuity requirements of this document annually
c) if a significant interruption takes place in the method for which the individual is certified
d) at the discretion of CWB for any other situations

CWB will review these on a case-by-case basis and determine the conditions for revalidation of the certification.

6.2 WITHDRAWAL OF CERTIFICATION

Certification shall be withdrawn by CWB:

a) at the discretion of CWB, i.e. after reviewing evidence of behaviour incompatible with the certification scheme or failure to abide by a code of conduct
b) if the individual fails to meet the requirements of renewal, until such time as the individual meets the requirements for renewal
c) if the individual fails recertification, until such time as the individual meets the requirements for recertification or certification
d) at the discretion of CWB, when verifiable evidence is received from the employer stating that the individual has become physically incapable of performing their duties

6.2.1 Certification after withdrawal

For 6.2 a) the certification can only be granted again after a minimum 12 month waiting period, CWB NDT CB will determine the actual period based on the severity of the violation.

For 6.2 d), sufficient evidence from the individual to confirm they are physically able to be reinstated and completion of a recertification process based on the method/level/sector they would like reinstated.

7 CERTIFICATION ISSUED BY OTHER CERTIFICATION BODIES

7.1 OTHER CAN/CGSB-48.9712-2022 CERTIFICATES

CWB will fully recognize existing and active CAN/CGSB-48.9712-2022 certificates provided the other certification body is compliant with the CAN/CGSB-48.9712-2022 standard. CWB may issue an alternate registration number to the individual if renewal or recertification is completed with CWB's scheme.

Existing NDT training through a Recognized Training Organization with the other CAN/CGSB-48.9712-2022 complaint certification body will also be recognized provided they are within the validity period of 10 years from the date of completion.

7.2 OTHER INTERNATIONAL ISO 9712 CERTIFICATIONS

Currently, CWB will review these certificates on a case-by-case basis. This may include a review of education, training, experience, vision, and examination requirements of the originating certification body. CWB will determine if the individual has credits and where they can be applied to the application process. The requests may include completing elements of examinations or may ultimately require a new initial application.

CWB strives to develop a more consistent and streamlined process and anticipates updates to the recognition of other ISO 9712 certificates in the future.

8 COMPLAINTS AND APPEALS

The CWB Group is committed to ensure a transparent and impartial approach to our certification programs for companies, individuals and products.

Complaints and appeals related to the activities and/or decisions of the CWB Group or related to the organizations, individuals and products we certify, can be made to the CWB Group's Registrar. All complaints and appeals and resulting outcomes will be documented and communicated back to the complainant or appellant.

Complaints and appeals can be made directly to CWB Group by calling 1-800-844-6790 or can be made through our external ConfidenceLine program (1-800-661-9675).

9 FEES

See Form 505 for the fee schedule. Pricing is subject to change at CWB's discretion.

ANNEX A: NDT EXAMINATION SCHEME

INITIAL EXAMINATIONS

Penetrant Testing

Penetrant Testing Level 2

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
PT2 General Written	• 40 multiple choice questions on PT theory	1 hour 20 mins	70% or higher
PT2 Specific (EMC) Written	• 50 multiple choice questions ○ 20 M&P ○ 10 Codes ○ 20 applications	2.5 hours	70% or higher
PT2 Practical (EMC)	• Performance & Calibration Checks • Inspect 4 specimens ○ 3 fluorescent ○ 1 colour contrast, solvent removable • Written Instruction for one of the inspected specimen	4 hours	70% or higher for each part

Penetrant Testing Level 3

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
PT3 Basic Written (Part A, B and C)	140 multiple choice questions • Part A ○ 30 general M&P questions ○ 40 M&P and discontinuous specific to products forms • Part B ○ 10 questions on CAN/CGSB-48.9712-2022 • Part C ○ 60 questions on other NDT methods	4 hours 50 mins	70% or higher
PT3 General Written - Part D	30 multiple choice questions on PT theory	1 hour	70% or higher
PT3 Specific (EMC) Written – Part E	40 multiple choice questions • 30 on MT applications • 10 on codes	2 hours	70% or higher
PT3 Procedure Writing Or Procedure Review	• NDT Procedure writing required for first L3 certification • Review of NDT procedure as option for adding L3 certifications	4 hours Or 1.5 hours	70% or higher
PT2 Practical (EMC)	• Only for candidates that do not have a valid PT2 Practical	4 hours	70% or higher for each part

Magnetic Testing Exams

Magnetic Testing Level 2

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
MT2 General Written	• 40 multiple choice questions on MT theory	1 hour 20 mins	70% or higher
MT2 Specific (EMC) Written	• 50 multiple choice questions ○ 20 M&P ○ 10 Codes ○ 20 applications	2.5 hours	70% or higher
MT2 Practical (EMC)	• Performance & Calibration Checks • Inspect 4 specimens ○ 2 yoke using black MT fluid ○ 2 wet fluorescent • Written Instruction for one of the inspected specimen	8 hours	70% or higher for each part

Magnetic Testing Level 3

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
MT3 Basic Written (Part A, B and C)	140 multiple choice questions • Part A ○ 30 general M&P questions ○ 40 M&P and discontinuous specific to products forms • Part B ○ 10 questions on CAN/CGSB-48.9712-2022 • Part C ○ 60 questions on other NDT methods	4 hours 50 mins	70% or higher
MT3 General Written - Part D	30 multiple choice questions on MT theory	1 hour	70% or higher
MT3 Specific (EMC) Written – Part E	40 multiple choice questions • 30 on MT applications • 10 on codes	2 hours	70% or higher
MT3 Procedure Writing Or Procedure Review	• NDT Procedure writing required for first L3 certification • Review of NDT procedure as option for adding L3 certifications	4 hours Or 1.5 hours	70% or higher
MT2 Practical (EMC)	• Only for candidates that do not have a valid MT2 Practical	8 hours	70% or higher for each part

Ultrasonic Testing Exams

Ultrasonic Testing Level 1

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
UT1 General Written	• 40 multiple choice questions on UT theory	1 hour 20 mins	70% or higher

UT1 Specific (EMC) Written	• 40 multiple choice questions
	  ○ 15 on discontinuities
	  ○ 25 on applications
		2 hours	70% or higher

UT1 Practical	• Performance & Calibration Checks
	  ○ 8 calibrations
	  ○ 1 beam spread check
	• Inspect 2 specimens
	  ○ 1 weld
	  ○ 1 formed product
		8 hours	70% or higher for each part

Ultrasonic Testing Level 2

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
UT2 General Written	• 40 multiple choice questions on UT theory	1 hour 20 mins	70% or higher

UT2 Specific (EMC) Written	• 70 multiple choice questions
	  ○ 30 M&P
	  ○ 10 Codes
	  ○ 30 applications
		3.5 hours	70% or higher

UT2 Practical	• Performance & Calibration Checks per L1 practical – only required if not completed	4 hours	70% or higher for each part

	• Inspect 4 specimens
	  ○ 2 weld
	  ○ 1 formed product – contact
	  ○ 1 formed product – immersion
	• Written Instruction for one of the inspected specimen
		16 hours	

Ultrasonic Testing Level 3

Exam Elements	Exam Questions & Parts	Duration	Pass Grade

UT3 Basic Written (Part A, B and C)	140 multiple choice questions
	• Part A
	  ○ 30 general M&P questions
	  ○ 40 M&P and discontinuous specific to products forms
	• Part B
	  ○ 10 questions on CAN/CGSB-48.9712-2022
	• Part C
	  ○ 60 questions on other NDT methods
		4 hours 50 mins	70% or higher for each part

UT3 General Written - Part D	30 multiple choice questions on UT theory	1 hour	70% or higher
UT3 Specific (EMC) Written - Part E	40 multiple choice questions • 30 on UT applications • 10 on codes	2 hours	70% or higher
UT3 Procedure Writing Or Procedure Review	• NDT Procedure writing required for first L3 certification • Review of NDT procedure as option for adding L3 certifications	4 hours Or 1.5 hours	70% or higher
UT2 Practical (EMC)	• Only for candidates that do not have a valid UT2 Practical	16 or 20 hours	70% or higher for each part

Radiographic Testing Exams

Radiographic Testing Level 1

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
Radiation Protection	• 25 multiple choice questions on radiation safety – only needs to be completed once by candidate	1 hour	70% or higher
RT1 General Written	• 40 multiple choice questions on RT theory	1 hour 20 mins	70% or higher
RT1 Specific (EMC) Written	• 40 multiple choice questions ○ 15 on discontinuities ○ 25 on applications	2 hours	70% or higher
RT1 Practical	• Performance & Calibration Checks • Inspect 2 specimens	4 hours	70% or higher for each part

Radiographic Testing Level 2

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
Radiation Protection	• 25 multiple choice questions on radiation safety – only needs to be completed once by candidate	1 hour	70% or higher
RT2 General Written	• 40 multiple choice questions on RT theory	1 hour 20 mins	70% or higher
RT2 Specific (EMC) Written	• 70 multiple choice questions ○ 30 M&P ○ 10 Codes ○ 30 applications	3.5 hours	70% or higher
RT2 Practical (EMC)	• Performance & Calibration Checks per L1 practical ○ only required if not completed at L1 (applies to all sectors)	4 hours	70% or higher for each part
	• Inspect 4 specimens ○ 1 gamma ray ○ 1 X-ray ○ 1 light casting/forging ○ 1 heavy casting/forging • Interpret 26 radiographs • Written Instruction for 1 specimen	16 hours	

Radiographic Testing Level 3

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
Radiation Protection	25 multiple choice questions on radiation safety – only needs to be completed once by candidate	1 hour	70% or higher

RT3 Basic Written (Part A, B and C)	140 multiple choice questions
	• Part A
	  ○ 30 general M&P questions
	  ○ 40 M&P and discontinuous specific to products forms
	• Part B
	  ○ 10 questions on CAN/CGSB-48.9712-2022
	• Part C
	  ○ 60 questions on other NDT methods
		4 hour 50 mins	70% or higher for each part

RT3 General Written - Part D	30 multiple choice questions on RT theory • Not repeated if switching RT sectors	1 hour	70% or higher
RT3 Specific (EMC) Written – Part E	40 multiple choice questions • 30 on RT applications • 10 on codes	2 hours	70% or higher
RT3 Procedure Writing Or Procedure Review	• NDT Procedure writing required for first L3 certification • Review of NDT procedure as option for adding L3 certifications	4 hours Or 1.5 hours	70% or higher
RT2 Practical (EMC)	• Only for candidates that do not have a valid RT2 Practical	16 or 20 hours	70% or higher for each part

Eddy Current Testing Exams

Eddy Current Testing Level 1

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
ET1 General Written	• 40 multiple choice questions on ET theory	1 hour 20 mins	70% or higher

ET1 Specific (EMC) Written	• 40 multiple choice questions
	  ○ 15 on flaws
	  ○ 25 on applications
		2 hours	70% or higher

ET1 Practical	• Performance & Calibration Checks
	  ○ 2 resistivity measurements
	  ○ Calibrating 1 absolute probe for plate
	  ○ Calibrating 1 absolute & 1 differential for tube
	• Inspect specimens
	  ○ 3 coating thickness
	  ○ 1 crack depth sizing
	  ○ 1 tube
		8 hours	70% or higher for each part

Eddy Current Testing Level 2

Exam Elements	Exam Questions & Parts	Duration	Pass Grade
ET2 General Written	• 40 multiple choice questions on ET theory	1 hour 20 mins	70% or higher

ET2 Specific (EMC) Written	• 60 multiple choice questions
	  ○ 25 M&P and flaws
	  ○ 10 Codes
	  ○ 25 applications
		3 hours	70% or higher

ET2 Practical	• Performance & Calibration Checks per L1 practical – only required if not completed	4 hours	70% or higher for each part

	• Inspect 4 specimens
	  ○ 2 tubes
	  ○ 1 fastened assembly
	  ○ 1 wheel section
	• Written Instruction for one of the inspected specimen
		16 hours	

Eddy Current Testing Level 3

Exam Elements	Exam Questions & Parts	Duration	Pass Grade

ET3 Basic Written (Part A, B and C)	140 multiple choice questions
	• Part A
	  ○ 30 general M&P questions
	  ○ 40 M&P and discontinuous specific to product forms
	• Part B
	  ○ 10 questions on CAN/CGSB-48.9712-2022
	• Part C
	  ○ 60 questions on other NDT methods
		4 hours 50 mins	70% or higher for each part

ET3 General Written - Part D	30 multiple choice questions on ET theory	1 hour	70% or higher
ET3 Specific (EMC) Written - Part E	40 multiple choice questions • 30 on ET applications • 10 on codes	2 hours	70% or higher
ET3 Procedure Writing Or Procedure Review	• NDT Procedure writing required for first L3 certification • Review of NDT procedure as option for adding L3 certifications	4 hours Or 1.5 hours	70% or higher
ET2 Practical (EMC)	• Only for candidate that do not have a valid ET2 Practical	16 or 20 hours	70% or higher for each part

RENEWAL EXAMINATIONS

Renewal exams are only applicable where the candidate chooses the examinations per Clause 3.3.

Method	Exam	Exam Questions & Parts	Duration	Pass Grade
PT Level 2 or 3	PT2 Renewal Practical (EMC)	• 1 Performance Verification • Inspect 1 specimen	4 hours	70% or higher for each part
MT Level 2 or 3	MT2 Renewal Practical (EMC)	• 1 Performance Verification • Inspect 1 specimen	4 hours	70% or higher for each part
UT Level 1	UT1 Renewal Practical (EMC)	• 1 Performance Verification • Inspect 1 specimen	4 hours	70% or higher for each part
UT Level 2 or 3	UT2 Renewal Practical (EMC)	• 1 Performance Verification • Inspect 1 specimen	4 hours	70% or higher for each part
RT Level 1	RT1 Renewal Practical (EMC)	• 1 Performance Verification • Inspect 1 specimen	4 hours	70% or higher for each part
RT Level 2 or 3 (EMC)	RT2 Renewal Practical (EMC)	• 1 Performance Verification • Inspect 1 specimen • Interpret 6 radiographs	4 hours	70% or higher for each part
ET Level 1	ET1 Renewal Practical	• 1 Performance Verification • Inspect 1 specimen	4 hours	70% or higher for each part
ET Level 2 or 3	ET2 Renewal Practical	• 1 Performance Verification • Inspect 1 specimen	4 hours	70% or higher for each part

RECERTIFICATION EXAMINATIONS

Method	Exam	Exam Questions & Parts	Duration	Pass Grade
PT Level 2 or 3	PT2 Recertification Practical (EMC)	• 1 Performance Verification • Inspect 2 specimens	4 hours	70% or higher for each part
PT Level 2	PT2 Instruction	• Written Instruction for one of the specimens		70% or higher

PT Level 3	PT3 Recertification Written	• Parts B and E of the Basic/Main Method exam for L3 recertification if structured credit is not chosen/accepted
		• 50 multiple choice questions
		  ○ 10 questions on CAN/CGSB-48.9712-2022
		  ○ 30 on PT applications
		  ○ 10 on codes
			2.5 hours	70% or higher

MT Level 2 or 3	MT2 Recertification Practical (EMC)	• 1 Performance Verification • Inspect 2 specimens	4 hours	70% or higher for each part
MT Level 2	MT2 Instruction	• Written Instruction for one of the specimens		70% or higher

MT Level 3	MT3 Recertification Written	• Parts B and E of the Basic/Main Method exam for L3 recertification if structured credit is not chosen/accepted
		• 50 multiple choice questions
		  ○ 10 questions on CAN/CGSB-48.9712-2022
		  ○ 30 on MT applications
		  ○ 10 on codes
			2.5 hours	70% or higher

UT Level 1	UT1 Recertification Practical (EMC)	• 1 Performance Verification • Inspect 2 specimens	4 hours	70% or higher for each part
UT Level 2 or 3	UT2 Recertification Practical (EMC)	• 1 Performance Verification • Inspect 2 specimens	8 hours	70% or higher for each part
UT Level 2	UT2 Instruction	• Written Instruction for one of the specimens		70% or higher
RT Level 1	RT1 Recertification Practical	• 1 Performance Verification • Inspect 2 specimens	4 hours	70% or higher for each part
RT Level 2 or 3	RT2 Recertification Practical	• 1 Performance Verification • Inspect 2 specimens • Interpret 12 radiographs	8 hours	70% or higher for each part

Method	Exam	Exam Questions & Parts	Duration	Pass Grade
RT Level 2	RT2 Instruction	• Written Instruction for 1 specimen		70% or higher
RT Level 3	RT3 Recertification Written	• Parts B and E of the Basic/Main Method exam for L3 recertification if structured credit is not chosen/accepted • 50 multiple choice questions ○ 10 questions on CAN/CGSB-48.9712-2022 ○ 30 on RT applications ○ 10 on codes	2.5 hours	70% or higher
ET Level 1	ET1 Recertification Practical	• 1 Performance Verification • Inspect 2 specimens	4 hours	70% or higher for each part
ET Level 2 or 3	ET2 Recertification Practical	• 1 Performance Verification • Inspect 2 specimens	8 hours	70% or higher for each part
ET Level 2	ET2 Instruction	• Written Instruction for one of the specimens		70% or higher
ET Level 3	ET3 Recertification Written	• Parts B and E of the Basic/Main Method exam for L3 recertification if structured credit is not chosen/accepted • 50 multiple choice questions ○ 10 questions on CAN/CGSB-48.9712-2022 ○ 30 on ET applications ○ 10 on codes	2.5 hours	70% or higher

ANNEX B – FORMS

Please visit the www.cwbgroup.org for the latest forms.

REFERENCES

Note: All references within this document relate to the latest version.

CAN/CGSB-48-9712-2022: Non-destructive Testing – Qualification and Certification of NDT Personnel (ISO 9712, IDT)

ISO 9712: Non-destructive testing Qualification and certification of NDT personnel

ISO/IEC 17024: Conformity Assessment – General requirements for bodies operating certification of persons

ISO 18490: Non-destructive testing – Evaluation of vision acuity of NDT personnel

ISO/TS 25107: Non-destructive testing – NDT training syllabuses

ISO/TS 25108: Non-destructive testing – NDT personnel training organisations