

PCN24/GEN

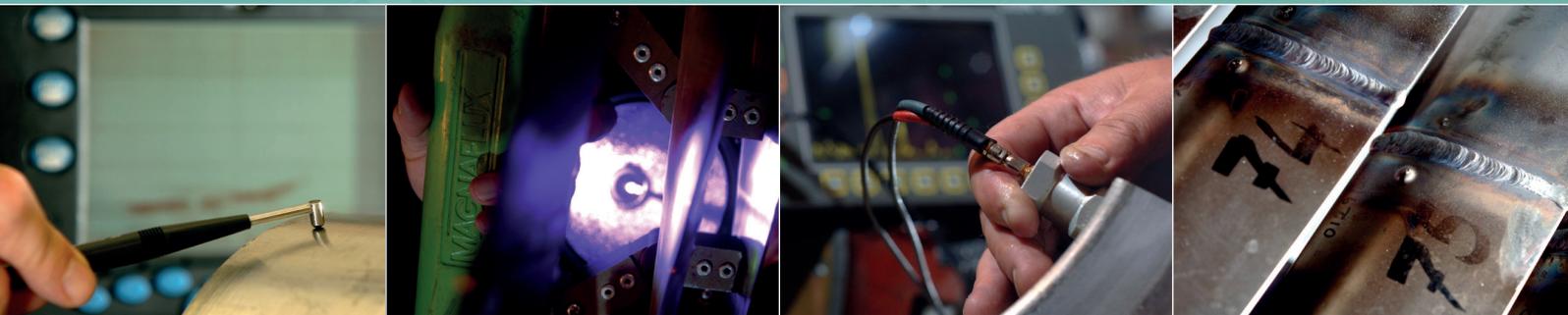
General requirements for qualification and PCN certification of NDT personnel

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The British Institute of Non-Destructive Testing is an accredited Certification Body offering personnel and quality management systems assessment and certification against criteria set out in international and European standards through the PCN Certification Scheme.

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Introduction

The PCN Scheme is an international programme for the certification of conformance of non-destructive testing (NDT) personnel that satisfies the requirements of ISO 9712 (latest version) and a number of other British, European and international standards.

The Council of the British Institute of Non-Destructive Testing (BINDT) constitutes a Certification Management Committee (CMC) and delegates to the CMC the responsibility for maintaining a management overview of the operations of its Certification Services Department. Membership of boards and committees is open to the participation of individuals and organisations. Further information on the work of the committees and committee membership is available from the Certification Services Department of the British Institute of NDT.

The CMC fulfils the requirement for a Scheme Committee in terms of ISO/IEC 17024 (Personnel Certification) and an Impartiality Committee in terms of ISO/IEC 17021 (Management Systems Certification).

There is a wide range of qualification examinations available within the Scheme, covering various NDT methods and techniques. Authorised Qualifying Bodies (AQBs) are independent organisations (see definition: 'Authorised Qualifying Bodies'), which have been audited against rigorous criteria prior to authorisation, and which are subject to regular surveillance. Organisations anywhere in the world wishing to explore the possibility of being authorised to conduct PCN examinations are encouraged to discuss the potential for their involvement with BINDT Certification Services.

This document, which is implemented with effect from 1 January 2024, sets out the general requirements and procedures common to all central parts of the Scheme. Supplementary appendices and supporting documents are published covering specific examinations applicable to various industry and product sectors.

This document is supported by a suite of other BINDT/PCN documents, which are referenced herein and available from the BINDT website (www.bindt.org). Prime Appendices supporting this document are listed below. These appendices contain details related to each main NDT method and the certifications available, including the available techniques, industry sectors and product sectors:

- PCN24/AQB/REQ/ET and PCN24/GEN/APP/ET
- PCN24/AQB/REQ/MT and PCN24/GEN/APP/MT
- PCN24/AQB/REQ/PT and PCN24/GEN/APP/PT
- PCN24/AQB/REQ/UT and PCN24/GEN/APP/UT
- PCN24/AQB/REQ/RT and PCN24/GEN/APP/RT
- PCN24/AQB/REQ/VT and PCN24/GEN/APP/VT
- PCN24/AQB/REQ/RUT and PCN24/GEN/APP/RUT
- PCN24/GEN/LIM/UT.

This series of documents is designed to provide comprehensive information for users of the PCN Scheme. The complete list of published PCN documents is detailed in publication reference PCN24/PSL8A. PCN documents are also available for download from the Institute's website at www.bindt.org

Pressure Equipment (Safety) Regulations (PESR)

The Pressure Equipment (Safety) Regulations 2016 implemented Directive 2014/68/EU on pressure equipment and assemblies. BINDT is a Recognised Third-Party Organisation accredited by UKAS, under Pressure Equipment (Safety) Regulations 2016: Guidance (GB), which implement the provisions of Directive 2014/68/EU concerning pressure equipment. The scope of the appointment is for the approval of personnel to carry out non-destructive tests on permanent joints for pressure equipment in categories III and IV in accordance with Section 22 of Schedule 2 of the Regulations.

All PCN certification valid for the welding and pre- and in-service inspection sectors satisfies the Pressure Equipment (Safety) Regulations 2016: Guidance (GB).

For further clarification of PCN compliance with the Pressure Equipment (Safety) Regulations 2016: Guidance (GB) and European Pressure Equipment Directive 2014/68/EU, visit the BINDT website: www.bindt.org/certification/pressure-equipment-directive
Copies of PCN documents are available free of charge from www.bindt.org. Organisations requiring at all times to be in possession of the most up-to-date PCN documents may register with the 'PCN Update Scheme', which, for a small annual fee, guarantees that they automatically receive all new or revised PCN documents in electronic form.

It is intended, through publication of these documents, to provide PCN candidates and certificate holders with all relevant information. However, if further information or advice is required on any certification matter, contact the Certification Services Department of BINDT on telephone number: +44 (0)1604 438300 (option 1) or email questions to: pcn.enquiries@bindt.org

1. Scope

- 1.1 This document describes a system for the qualification and certification of personnel who perform non-destructive testing within specified industry sectors.
- 1.2 Specific details of the certification offered via the PCN Scheme, including which NDT methods, certification levels and industry sectors are available, are contained in the appropriate supplementary documents that support this document. A list of the current supplementary documents is published within document PCN24/PSL8A.
- 1.3 This document incorporates provisions from other PCN publications, all of which are available from the British Institute of NDT at www.bindt.org and which are listed below under 'References'.

2. References

2.1 Regulations:

- Pressure Equipment (Safety) Regulations 2016
- 2014/68/EU – Pressure Equipment Directive
- IRR17 – Ionising Radiations Regulations 2017.

2.2 Standards (latest issues):

- ISO/IEC 17024: General requirements for bodies operating certification systems of persons
- CEN/TS 15053: Non-destructive testing – Recommendations for discontinuities-types in test specimens for examination
- CEN ISO/TR 25107: Non-destructive testing – Guidelines for NDT training syllabuses (ISO/TR 25107)
- CEN ISO/TR 25108: Non-destructive testing – Guidelines for NDT personnel training organisations (ISO/TR 25108)
- EN ISO 9712: Non-destructive testing – Qualification and certification of personnel
- ISO 18490: Non-destructive testing – Evaluation of vision acuity of NDT personnel.

Wherever there is a conflict between the requirements of a standard concerning NDT personnel qualification and certification, the PCN Scheme will meet or exceed the EN ISO 9712 criterion unless otherwise indicated by text placed within a frame similar to that in which this text is displayed.

2.3 PCN documents (referenced herein):

- PCN24/PSL4 Examination availability
- PCN24/PSL8A PCN documents – Issue status
- PCN24/PSL28 Late and deferred application
- PCN24/PSL30 Log of pre-certification experience
- PCN24/PSL31 Use of PCN and UKAS logo
- PCN24/PSL44 Vision requirements
- PCN24/PSL49 Examination exemptions for holders of certification other than PCN
- PCN24/PSL56A Verification of candidate identification
- PCN24/PSL57A Application for examination
- PCN24/PSL57C Application for certification, experience gained post examination (including PCN24/F18)
- PCN24/PSL70 Request for Level 2 certificate issue to a L3 certificate holder
- PCN24/CP08 Approval of NDT training organisations
- PCN24/CP09 Requirements for BINDT Authorised Qualifying Bodies
- PCN24/CP14 BINDT audit procedure
- PCN24/CP16 Renewal and recertification of PCN Levels 1, 2 and 3 certificates
- PCN24/CP19 Informal access to Authorised Qualifying Bodies by third parties
- PCN24/CP21 Complaints and appeals
- PCN24/CP22 Marking and grading PCN practical examinations
- PCN24/CP25 Guidelines for the preparation of NDT procedures and instructions in PCN examinations
- PCN24/CP27 Code of Ethics for PCN certificate holders
- PCN24/CP29 Procedure for the granting of interim Level 1 certification while gaining Level 2 experience.

3. Terms and definitions

For the purposes of this document, the following definitions apply:

- 3.1 **Applicant** – A person who has submitted an application to be admitted into the certification process.
- 3.2 **Approved Training Organisation (ATO)** – A legal entity assessed against the criteria in CEN ISO/TR 25108 and approved by BINDT to provide specified training courses for personnel intending to attempt a PCN or other specified examination.
- 3.3 **Authorised Examination Centre (AEC)** – A location, approved by BINDT, where PCN examinations are conducted.
- 3.4 **Authorised Qualifying Body (AQB)** – A body, independent of any single predominant interest, satisfying the criteria detailed in PCN document reference PCN24/CP09 and authorised by the British Institute of NDT to prepare and administer PCN examinations to qualify NDT personnel.
- 3.5 **Appropriately Qualified Personnel** – Individuals carrying out supervision of candidates for PCN certification holding relevant certification issued by a BINDT-recognised Certification Body meeting the requirements of ISO/IEC 17024.
Note: The certification concerned must include supervisory competence and have a similar technical scope as that certification which is the subject of surveillance. Where there are insufficient appropriately qualified persons in a country outside of the United Kingdom to satisfy the requirement, supervision of PCN candidates may be carried out by persons holding relevant qualification acceptable to BINDT.
- 3.6 **Basic Examination** – Written examination, at Level 3, which demonstrates the candidate's knowledge of the materials science and process technology and types of discontinuities, the specific qualification and certification system and the basic principles of NDT methods as required for Level 2.
- 3.7 **Candidate** – Individual seeking qualification and certification and who gains experience under the supervision of suitably qualified personnel.
- 3.8 **Certificate** – Document, issued by the Certification Body under the provisions of the applicable standard, indicating that the named person has demonstrated the competence(s) defined on the certificate.
- 3.9 **Certification** – Procedure used by BINDT to confirm that the qualification requirements for a method, level and sector have been fulfilled, leading to the issue of a certificate.
Note: The issuing of a certificate does not authorise the holder to operate; this authority can only be given by the employer.
- 3.10 **Certification Body** – The body that administers procedures for certification of NDT personnel in accordance with this specification and fulfils the requirements of ISO/IEC 17024.
Note: In the present case, the Certification Body is the British Institute of Non-Destructive Testing, which manages and administers the PCN Scheme.
- 3.11 **Certification Cycle** – Maximum period of time permitted from the date of certification to the date of recertification inclusive of the renewal period.
- 3.12 **Certification Process** – Activities by which a Certification Body determines that a person fulfils certification requirements, including application, assessment, decision on certification, renewal, recertification and use of certificates and logos/marks.
- 3.13 **Certification Requirements** – A set of specified requirements, including requirements of the scheme to be fulfilled in order to establish or maintain certification.
- 3.14 **Closed-Book Examination** – Examination administered without access to any reference materials unless approved by the Certification Body (formulae, etc).
- 3.15 **Competence** – Ability to apply knowledge and skills to achieve intended results.
- 3.16 **Employer** – The organisation for which a candidate or holder of certification works on a regular basis. An employer may also be a candidate.
- 3.17 **Examination** – Mechanism that is part of the assessment that measures a candidate's competence by one or more means.
- 3.18 **Examination Centre** – Centre approved by the Certification Body where examinations are carried out.
- 3.19 **Examination Element** – Component of an examination.
- 3.20 **Examiner** – A person certified to Level 3 in the method and product or industrial sector for which he/she is authorised by the British Institute of NDT to conduct, supervise and grade the qualification examination.
- 3.21 **Face-to-Face** – 'In person,' 'at the same location,' 'at the same time.'

- 3.22 **General Examination** – A written examination, at Level 1 or 2, concerned with the principles of an NDT method.
- 3.23 **Higher Education** – Formal learning that occurs after completion of secondary education in the field of engineering or science.
- 3.24 **Industrial NDT Experience** – The experience needed to acquire the skill and knowledge to fulfil the provisions of qualification in the appropriate sector and which is gained under the supervision of Appropriately Qualified Personnel, in the application of the NDT method in the sector concerned.
- Note: Experience may be acquired either prior to (for Level 1 and 2 entry only) or following success in the qualification examination. However, the chances of success in a PCN examination may be significantly reduced if candidates have little or no current experience in the application of the NDT method in the sector concerned.*
- In the event that the PCN examination has been passed by a candidate lacking the experience required for certification, BINDT will issue a letter of attestation to the successful candidate indicating that they have passed the qualification examination and needs only to meet the experience requirement in order to be certificated. Records of experience obtained post examination shall be presented on PCN form PCN24/PSL30.*
- 3.25 **Invigilator** – An individual trained by an AQB in the process of examination invigilation to BINDT requirements, particularly with respect to the points to be observed during a practical examination, and who is impartial with respect to the candidate(s) under examination. Invigilators shall be authorised in writing by BINDT on the AQB schedule of authorisation.
- 3.26 **Job-Specific Training** – Instruction, provided by the employer (or their agent) to the candidate or certificate holder in those aspects of non-destructive testing specific to the employer's products, NDT equipment, NDT procedures and applicable codes, standards and specifications, leading to the award of operating authorisation.
- Note: A job-specific examination, which is often solely of a practical nature, may be conducted by the employer as a part of the NDT personnel authorisation procedure (the British Institute of NDT publishes guidance for employers in conducting and recording such examinations) or by a BINDT Authorised Qualifying Body.*
- 3.27 **Main NDT Method Examination** – Written examination, at Level 3, which demonstrates the candidate's general and specific knowledge of the applicable NDT method and the ability to write NDT procedures for the NDT method as applied in the industrial or product sector(s) for which certification is sought.
- 3.28 **Multiple-Choice Examination Question** – A question worded in a manner giving rise to four potential replies, only one of which is correct, the remaining three being incorrect or incomplete.
- 3.29 **NDT Instruction/Written Instruction** – A written description of the precise steps to be followed in testing to an established standard, code, specification or NDT procedure.
- 3.30 **NDT Media** – Testing products used to create visible indications caused by imperfections or flaws. For example, magnetic powder, contrast aid paints, colour contrast penetrant, developer.
- 3.31 **NDT Method** – Discipline applying a physical principle in non-destructive testing (for example, ultrasonic testing).
- 3.32 **NDT Personnel** – Personnel who perform non-destructive testing.
- 3.33 **NDT Procedure** – Written description of all essential parameters and precautions to be applied when non-destructively testing products in accordance with standard(s), code(s) or specification(s). An NDT procedure can involve the application of more than one NDT method or technique.
- 3.34 **NDT Technique** – A specific way of utilising an NDT method (for example, the ultrasonic immersion technique).
- 3.35 **NDT Training** – A process of instruction in theory and practice in the NDT method in which certification is sought, which takes the form of training courses to a syllabus approved by BINDT.
- 3.36 **Open-Book Examination** – Examination administered with access to specific reference material that is provided with or referenced in the examination.
- 3.37 **Operating Authorisation** – A written statement issued by the employer, based upon the scope of certification, authorising the individual to carry out defined tasks. Authorisation may be dependent on the provision of job-specific training.
- 3.38 **Practical Examination** – Assessment of practical skills in which the candidate demonstrates familiarity with and the ability to operate the necessary test equipment, to perform the test using prescribed specimens and to record and to analyse the resulting information to the degree required.

- 3.39 **Product Technology** – Knowledge and understanding of the associated materials and product science required to ensure that NDT operators can effectively confirm where discontinuities and or flaws are likely to occur during the manufacturing process, or as a direct consequence of mechanisms such as fatigue throughout the in-service lifecycle of a material or product.
- 3.40 **Qualification** – Demonstration of physical attributes, knowledge, skill, training and experience required to properly perform NDT tasks.
- 3.41 **Qualification Examination** – An examination administered directly by the British Institute of NDT or by an Authorised Qualifying Body, which assesses the general, specific and practical knowledge and skill of the candidate.
- 3.42 **Qualified Supervision** – Supervision of candidates gaining experience by NDT personnel certificated under the PCN Scheme or by non-certificated personnel who, in the opinion of BINDT, possess the knowledge, skill, training and experience required to properly perform such supervision.
- 3.43 **Recertification** – Procedure for revalidation of a certificate by examination or by otherwise satisfying the Certification Body that the published criteria for recertification are satisfied.
- 3.44 **Referee** – An individual that attests the validity of the candidate’s industrial experience.
- 3.45 **Record of Certification** – Document listing all PCN certification issued under the rules specified in PCN documentation, indicating that the named individual has demonstrated proficiency in performing NDT within the scope of the certification.
- 3.46 **Remote Training Centre** – Location, approved by BINDT, where an ATO conducts BINDT-validated training courses.
- 3.47 **Renewal** – Procedure for revalidation of a certificate without examination at any time up to five years after success in an initial, supplementary or recertification examination.
- 3.48 **Sector** – A particular section of industry or technology where specialised NDT practices are used, requiring specific product-related knowledge, skill, equipment or training. A sector may be interpreted to mean a product (castings, welds or wrought products) or an industry (railway or in-service testing).
- 3.49 **Significant Interruption** – Absence from (or a change of) work activity that prevents the holder of PCN certification from practising the duties corresponding to their level in the method and sector(s) for which certification was issued for: (a) a continuous period in excess of one year; or (b) two or more periods for a total time exceeding two years.
- Note: Legal holidays, or periods of sickness or courses of less than 30 days, are not taken into account when calculating the interruption.*
- 3.50 **Specific Examination** – Written examination, at Level 1 or Level 2, concerned with testing techniques applied in a particular sector(s), including knowledge of the product(s) tested and of codes, standards, specifications, procedures and acceptance criteria.
- 3.51 **Specification** – Document stating requirements.
- 3.52 **Specimen** – A sample used in practical examinations, which may include radiographs and datasets, and which are representative of products typically tested in the applicable sector and which may include more than one area or volume to be tested.
- 3.53 **Specimen Master Report** – Model answer, indicating the optimum result for a practical examination given a defined set of conditions (equipment type, settings, technique, specimen, etc), against which the candidate’s test report will be graded.
- 3.54 **Structured Credit System** – Point system based on the NDT activities of the candidate used as an alternative to examination for renewal or recertification.
- 3.55 **Structured Experience Programme (SEP)** – Programme approved by the Certification Body to reduce industrial experience. BINDT process for fast-track experience through ATOs is detailed in document PCN24/CP28.
- 3.56 **Supervision** – Act of directing the application of NDT performed by other NDT personnel, which includes the control of actions involved in the preparation of the test, performance of the test and reporting of the results.
- 3.57 **Validation** – Act of demonstrating that a verified procedure will work in practice and fulfil its intended function, normally achieved by actual witnessing, demonstration, field or laboratory tests or selected trials.
- 3.58 **Work Activity** – Performance of NDT-related functions and tasks.
- 3.59 **Written Practice** – Documented procedure detailing the employer’s requirements for qualification, certification and authorisation of NDT employees.

4. Abbreviations

Table 1. Methods and abbreviated terms

NDT method/process	Abbreviated term	NDT method/process	Abbreviated term
Authorised Examination Centres	AEC	Phased Array (of eddy current or ultrasonic transducers)	PA
Alternating Current Field Measurement	ACFM	Pressure Equipment Directive (2014/68/EU)	PED
Acoustic Emission Testing	AT	Penetrant Testing	PT
Approved Training Organisations	ATO	Quality Assurance	QA
Authorised Qualifying Bodies	AQB	Quality Control	QC
Advanced Radiation Safety	ARS	Radiographic Interpreter	RI
Automated Ultrasonic Testing	AUT	Radiation Protection Supervisor	RPS
Basic Radiation Safety	BRS	Radiographic Testing	RT
The British Institute of NDT (the Certification Body)	BINDT	Total Focusing Method (Ultrasonic Technique)	TFM
Certification Body	CB	Time-of-Flight Diffraction	TOFD
Eddy Current Testing	ET	Infrared Thermographic Testing	TT
Magnetic Testing	MT	Ultrasonic Testing	UT
Non-Destructive Testing	NDT	Visual Testing	VT
On-The-Job (Training)	OTJ		

5. Duties and responsibilities

5.1 General

5.1.1 The PCN certification system is controlled and administered by the Certification Body (BINDT) and includes all procedures necessary to demonstrate the qualification and the competence of an individual to carry out tasks in a specific NDT method and product or industrial sector, leading to certification.

5.2 The Certification Body (BINDT)

5.2.1 BINDT shall fulfil the requirements of ISO/IEC 17024 and, *inter alia*, will ensure that the PCN Scheme(s) for qualification and certification of personnel, and the assessment and certification of systems, are controlled and operated so as to ensure, amongst other things, that they are impartial and that decisions taken and implemented at all levels, including management and committees, are free from commercial or other pressures that may prevent the objective provision of certification services.

5.2.2 BINDT remains independent of any single interest.

5.2.3 BINDT remains responsible for determining the methods, sectors and product types covered by the PCN Scheme and for which certification examinations are offered.

5.2.4 BINDT publishes information regarding the scope of the certification scheme and a general description of the certification process.

5.2.5 BINDT provides information for training courses that include the syllabuses that embody the content of recognised documents; ISO/TS 25107 or equivalent can be used as guidance.

5.2.6 BINDT approves Authorised Qualifying Bodies (AQBs) to carry out examinations (assessments) on its behalf and carries out regular and frequent assessments of AQBs against a published specification (PCN24/CP09). BINDT delegates, under its direct responsibility, the detailed administration of qualification to AQBs, to which it issues specifications and/or procedures covering facilities, personnel, verification and control of NDT equipment, examination materials, specimens, conduct of examinations, examination grading, records, etc.

5.2.7 BINDT will conduct oversight of AQB-appointed (by BINDT agreement) Authorised Examination Centres (AECs), where PCN examinations are conducted.

- 5.2.8 BINDT bears ultimate responsibilities for examinations conducted on a temporary basis at external premises.
- 5.2.9 BINDT is ultimately responsible for ensuring the security of all examination materials (examination specimens, specimen master reports, question banks, examination papers, etc) and shall ensure that these materials are not in use for training purposes. This responsibility is delegated to approved AQB's and AEC's and verified/checked via the BINDT oversight and audit processes.
- 5.2.10 BINDT requires all candidates, certificate holders and personnel associated with administration of certification to give a signed or stamped undertaking to abide by a code of ethics, which it shall develop for the purpose and publish.
- 5.2.11 BINDT remains responsible for the implementation of a process to authorise examiners.
- 5.2.12 BINDT remains responsible for and has requirements and processes in place that address the following:
 - (a) Authorisation of examiners.
 - (b) The conditions for the supervision of work activities, for which candidates may claim experience.
 - (c) The recognition of higher education.
 - (d) The approval of non-certified individuals as a referee.
 - (e) The approval, implementation and terms of use of structured credit systems.
 - (f) The maintenance and update of the PCN question bank and the arrangements for examination specimens, along with their specimen master report.
 - (g) The conditions for the conduct of the examination, including that they are only conducted in the presence of, and under the control of, an authorised invigilator of the Certification Body, to ensure that impartiality is maintained.
 - (h) The approval of a structured experience programme, where used.
- 5.2.13 BINDT shall ensure that information obtained during the certification process, or from sources other than the applicant, candidate or certified person, is not disclosed to an unauthorised party without the written consent of the individual (applicant, candidate or certified person), except where the law requires such information to be disclosed.
- 5.2.14 When BINDT is required by law to release confidential information, the person concerned shall, unless prohibited by law, be notified as to what information will be provided.

5.3 Authorised Qualifying Body

- 5.3.1 AQB's are responsible for ensuring they work under the control of and apply the specifications issued by BINDT (the Certification Body).
- 5.3.2 AQB's are responsible for maintaining compliance with BINDT document PCN24/CP09 and other applicable BINDT documents at all times and shall be subject to initial and periodic compliance audits conducted by the certifying body or its agents.
- 5.3.3 AQB's are responsible for ensuring their independence from of any single predominant interest.
- 5.3.4 AQB's are responsible for ensuring that they are impartial with respect to each candidate seeking qualification, bringing to the attention of the Certification Body any actual or potential threat to its impartiality.
- 5.3.5 AQB's are responsible for ensuring the implementation of a documented quality management system approved by the Certification Body.
- 5.3.6 AQB's are responsible for ensuring that they have the resources and expertise necessary to establish, monitor and control examinations centres, including examinations and the verification and control of the equipment.
- 5.3.7 AQB's are responsible for the qualification of candidates, including a review of applications and making decisions on an applicant's eligibility.
- 5.3.8 AQB's are responsible for the preparation, supervision and administering of PCN examinations.
- 5.3.9 AQB's are responsible for providing the Certification Body with the results of qualification needed to make a decision on certification.
- 5.3.10 AQB's are responsible for maintaining appropriate qualification and examination records according to the requirements of the Certification Body.

5.4 Authorised Examination Centre

- 5.4.1 An Authorised Examination Centre (AEC) may operate under the direct control of the Certification Body (BINDT) or an Authorised Qualifying Body. The AEC may be an independent legal entity or part of another legal entity. An examination centre can be situated at an employer's premises. In this case, the Certification Body shall require controls to preserve impartiality and protect confidentiality of the examinations. The examinations shall be conducted only in the presence of, and under the control of, an authorised representative of the AQB or Certification Body.
- 5.4.2 AECs may only operate work under the control of the Certification Body (BINDT) or Authorised Qualifying Body. All AECs must be affiliated to an AQB. The AQB remains ultimately responsible for all aspects of the examination process.
- 5.4.3 An AEC is responsible for ensuring the implementation of a documented quality management system approved by the AQB and the Certification Body.
- 5.4.4 An AEC is responsible for ensuring they have the resources needed to prepare and conduct examinations, including the verification and control of equipment.
- 5.4.5 An AEC is responsible for ensuring they have adequate qualified staff, premises and equipment to ensure satisfactory examinations for the levels, methods and sectors concerned; the use of external premises is permitted.
- 5.4.6 An AEC is responsible for administering examinations as directed by the AQB or Certification Body using only examination questionnaires and specimens established or approved by the AQB or Certification Body for that purpose.
- 5.4.7 An AEC is responsible for accumulating and correlating the appropriate qualification and examination records according to the requirements of the AQB and Certification Body.

5.5 Approved Training Organisation

- 5.5.1 The responsibilities of a training body are not included in ISO 9712; however, BINDT operates an approved training process. An Approved Training Organisation (ATO) is a company or body audited and approved by BINDT to deliver NDT training in a planned and systematic manner aimed at preparing an individual for examination.
- 5.5.2 The ATO shall maintain its training processes in accordance with BINDT document PCN24/CP08.
- 5.5.3 The responsibilities and duties of an ATO are defined in PCN24/CP08.
- 5.5.4 When issuing BINDT-branded training certification, the ATO may only operate work under the control of BINDT and within its scope of BINDT approval.
- 5.5.5 The training processes and controls defined by BINDT within PCN24/CP08 are based upon the requirements and guidelines detailed in international standard TS 25108 (latest version).

5.6 The employer

- 5.6.1 The employer remains responsible for documenting the applicant's personal information, which shall include the declaration of education, training and industrial experience and visual acuity needed to determine the eligibility of the applicant. If the applicant is self-employed, the industrial experience shall be attested to by a referee.
- 5.6.2 All documentation obtained from the employer may be subject to verification by the Certification Body.
- 5.6.3 In respect of certified NDT personnel under their control, the employer is responsible for:
 - (a) All that concerns the authorisation to operate, *ie* providing job-specific training (if necessary).
 - (b) Issuing written authorisation to operate.
 - (c) The results of NDT activities.
 - (d) Ensuring that the annual vision requirements are met.
 - (e) Maintaining documentary evidence confirming the continuous application of the NDT method in the relevant sector(s) without significant interruption; this action shall be done every 12 months, as a minimum.
 - (f) Ensuring that personnel hold valid certification relevant to their tasks within the organisation.
 - (g) Maintaining appropriate personnel records.
- 5.6.4 These responsibilities shall be described and detailed within a documented procedure or procedures.
- 5.6.5 A self-employed individual shall assume all responsibilities ascribed to the employer.

- 5.6.6 PCN certification issued in accordance with this document provides an attestation of general competence of the certified NDT personnel at the time of examination. The responsibility for ensuring on-going competence remains with the employer.
- 5.6.7 PCN certification does not represent an authorisation to operate, since this remains the responsibility of the employer, and the certified NDT personnel may require additional specialised knowledge of parameters such as equipment, NDT procedures, materials and products specific to the employer.
- 5.6.8 Where required by regulatory requirements and codes, the authorisation to operate must be given in writing by the employer in accordance with a written practice or quality procedure that defines any employer-required job-specific training and examinations designed to verify the certificate holder's knowledge of relevant industry code(s), standard(s), NDT procedures, equipment and acceptance criteria for the products tested.
- 5.6.9 Neither the employer nor their employees shall be directly involved in the qualification examination.
- 5.6.10 The employer shall ensure that candidates gaining experience for certification are supervised by appropriately qualified personnel.

5.7 Candidates (employed, self-employed or unemployed)

- 5.7.1 All PCN applicants/candidates are responsible for providing documentary evidence of satisfactory completion of a course of training at a BINDT Approved Training Organisation or other approved alternative (see 7.2.1).
- 5.7.2 All PCN applicants/candidates are responsible for providing verifiable documentary evidence, in a form acceptable to BINDT, that the required experience has been gained under qualified supervision. A correctly completed PCN24/PSL30 form satisfies this requirement.
- 5.7.3 All PCN applicants/candidates are required to give an undertaking to abide by the BINDT/PCN Code of Ethics, published as PCN24/CP27, for candidates and certificate holders and included as an appendix on all PCN examination and certification renewal application forms.
- 5.7.4 All PCN applicants/candidates are responsible for providing documentary evidence of visual acuity and colour perception satisfying the requirements of ISO 9712. BINDT document PCN24/PSL44 gives further guidance on PCN vision requirements.
- 5.7.5 All PCN applicants/candidates are required to sign a non-disclosure agreement indicating their commitment not to release confidential examination materials or participate in fraudulent test-taking practices. Form PCN24/PSL56A is designed for this purpose and is supplied by the AQB for completion prior to examination.
- 5.7.6 All PCN applicants/candidates are responsible for informing the examination centre and BINDT/PCN of any significant interruption that may have a detrimental effect on the scope of his/her certification.
- 5.7.7 If self-employed, PCN applicants/candidates shall assume all of the responsibilities described for the employer.

5.8 Certificate holders

- 5.8.1 PCN certificate holders are responsible for ensuring that they abide by the BINDT/PCN Code of Ethics, published as PCN24/CP27 and available on the BINDT website at www.bindt.org.
- 5.8.2 PCN certificate holders are responsible for ensuring that they are subject to visual acuity and colour perception tests satisfying the requirements of ISO 9712. BINDT document PCN24/PSL44 gives further guidance on PCN vision requirements.
- 5.8.3 PCN certificate holders are responsible for notifying BINDT Certification Services and the employer in the event that the conditions for validity of PCN certification are not fulfilled.

5.9 Examiners

- 5.9.1 Examiners shall be authorised by BINDT (the Certification Body) to conduct, supervise and grade examinations.
- 5.9.2 Examiners shall be certified to Level 3 in the NDT method in the product and/or industrial sector for which they are authorised.
- 5.9.3 An examiner shall not be permitted to examine any candidate that they have trained for the examination for a period of two years from the date of the conclusion of the training.
- 5.9.4 Examiners shall not be permitted to examine any candidate who is working (permanently or temporarily) in the same facility as the examiner unless BINDT (the Certification Body) has established a documented confidentiality and impartiality management procedure for such a situation. All such situations shall be referred to BINDT for authorisation (or otherwise) prior to any examination attempt.

5.10 Referee

5.10.1 A referee shall be:

- (a) certified to Level 2 or 3 in any NDT method; **OR**
- (b) a non-certified person who is acceptable based upon the possession of the knowledge, skill, training and experience required to attest to the candidate's industrial experience and/or continued employment and competence. Such persons are normally those with NDT management or supervisory experience.
 - For initial applicants, the attestation of suitable experience and/or continued employment and competence may be validated by a person as detailed in (a) or (b) above. The acceptability and suitability under clause (b) above shall be at the discretion of the AQB.
 - For renewal/recertification by examination, the attestation of suitable experience and/or continued employment and competence may be validated by a person as detailed in (a) or (b) above. The acceptability and suitability under clause (b) above shall be at the discretion of the AQB.
 - For renewal/recertification by direct application to BINDT, the attestation of suitable experience and/or continued employment and competence may be validated by a person as detailed in (a) or (b) above. The acceptability and suitability under clause (b) above shall be at the discretion of BINDT.
- (c) Applicant organisations or individuals should ensure that referees utilised are suitably knowledgeable to be able to attest to the applicants employment history and competence. Failure to ensure this may lead to the rejection of a referee. Ultimately, the status and standing of a referee remains the responsibility of the applicant and/or their employer.

6. Levels of certification

6.1 Level 1

6.1.1 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. Within the scope of the competence defined on the certificate, Level 1 personnel may be authorised 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.

6.1.2 Level 1 certified personnel shall neither be responsible for the choice of test method or technique to be used, nor for the interpretation of test results.

6.2 Level 2

6.2.1 An individual certified to Level 2 has demonstrated competence to perform NDT according to NDT procedures. Within the scope of the competence defined on the certificate, Level 2 personnel may be authorised by the employer to:

- (a) select the NDT technique for the test method to be used.
- (b) define the limitations of application of the testing method.
- (c) translate NDT codes, standards, specifications and procedures into NDT instructions adapted to the actual working conditions.
- (d) set-up and verify equipment settings.
- (e) perform and supervise tests.
- (f) interpret and evaluate results according to applicable standards, codes, specifications or procedures.
- (g) prepare written NDT instructions.
- (h) carry out and supervise all tasks at or below Level 2.
- (i) provide guidance for personnel at or below Level 2.
- (j) report the results of non-destructive tests.

6.3 Level 3

- 6.3.1 An individual certified to Level 3 has demonstrated competence to perform and direct NDT operations for which he/she is certified. Level 3 personnel have demonstrated:
- (a) the competence to evaluate and interpret results in terms of existing standards, codes and specifications.
 - (b) a general familiarity with other NDT methods.
- 6.3.2 Within the scope of the competence defined on the certificate, Level 3 personnel may be authorised to:
- (a) establish, review for editorial and technical correctness and validate NDT instructions and procedures.
 - (b) interpret codes, standards, specifications and procedures.
 - (c) designate the particular test methods, techniques and procedures to be used.
 - (d) within the scope and limitations of any certification held (see clause 6.3.4), carry out all tasks at all levels.
 - (e) assume full responsibility for a test facility or examination centre and staff.
- 6.3.3 Level 3 certificated personnel may be authorised to carry out, manage and supervise PCN qualification examinations on behalf of the British Institute of NDT.
- 6.3.4 BINDT requires initial Level 3 candidates to hold Level 2 certification or pass the Level 2 practical element as part of the initial Level 3 examination. At the point of renewal or recertification of a Level 3 certificate, the applicant is required to prove continued practical competence (see the 'Renewal and recertification' section of this document for details).
- 6.3.5 Where Level 3 duties require the individual to apply routine NDT by a method or methods within a particular product or industry sector (testing product), BINDT strongly recommends that the Level 3 person should hold and maintain Level 2 certification in the applicable method(s) and sector(s). This may be mandatory in certain industrial sectors and is driven by the employer's customer base and applicable standards and specifications.
- 6.3.6 The range and scope of PCN certification available at each level is defined in the suite of supporting documents to these general requirements.

7. Eligibility

7.1 General

- 7.1.1 The candidate 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.

7.2 Training

- 7.2.1 To be eligible for PCN examination, the candidate shall provide documentary evidence of successful completion of a BINDT-validated course of training at a BINDT ATO that covers the relevant part of the published syllabus (CEN ISO/TR 25107). The candidate shall satisfactorily complete the approved training in the method and level for which certification is sought. Where PCN examinations are to be conducted for initial candidates in an overseas location and BINDT-validated training is not available through a BINDT ATO, a training course that is equivalent to the BINDT-approved syllabus may be acceptable providing the AQB conducts a documented review to determine that the candidate has successfully completed the alternative training course contained within in his/her application for examination and that the course meets BINDT requirements. Documented evidence of the review shall be retained in the relevant examination records for the purpose of traceability and review during BINDT assessments. See PCN24/PSL49 for further guidance.
- 7.2.2 For all levels, theoretical training may be delivered in a face-to-face instructor-led format, distance learning format, a self-paced format or a combination of these formats. Practical training shall be delivered via a face-to-face instructor-led format only. The training for initial certification shall remain valid for a maximum period of ten years from the date of completion. The delivery of online training or blended learning requires ATO addition to scope approval by BINDT and further details are contained in BINDT document PCN24/CP08.

- 7.2.3 The former optional route for entry into the PCN Scheme as a mature candidate was introduced upon the advent of the scheme to facilitate the initial certification of time-served NDT professionals who were certified under other schemes prior to the introduction of PCN. This need is considered to no longer exist and mature entry is now removed, with access to the scheme addressed elsewhere in the process.
- 7.2.4 For Level 3, in addition to the minimum training given in Table 2, the preparation for qualification can be completed in different ways dependent on the scientific and technical background of the candidate, including attendance at other training courses, conferences or seminars, studying books, periodicals and other specialised printed or electronic materials.
- 7.2.5 The minimum duration of training undertaken by the candidate for certification shall be as defined in 7.2.7 and Table 2 (below) for the applicable NDT method, with the possible reductions defined in clause 7.2.8. This duration is based upon candidates possessing adequate mathematical skills and prior knowledge of materials and processes. If it is not the case, additional training may be required in this area, prior to attending the relevant NDT training course. Prior knowledge is a basic understanding; however, the mandatory Product Technology Training Course being introduced exceeds these 'basic prior knowledge' requirements and all students (at whatever level) are required to complete this Product Technology training in advance of attending their first BINDT ATO-approved training course. This also applies to Level 3 bespoke training where the applicant does not hold a valid ISO 9712 certificate. This training course need only be completed once. Valid ISO 9712 certificates are those recognised by BINDT and as listed in ICNDT OP19 – MRA Schedule 2 and/or European Federation for Non-Destructive Testing (EFNDT) MRA Schedule 2.
- 7.2.6 The minimum training duration stated shall include both practical and theoretical aspects.
- 7.2.7 Direct access to Level 2 requires the total hours shown in Table 2 for Levels 1 and 2. Direct access to Level 3 requires the total hours shown in Table 2 for Levels 1, 2 and 3. When considering the responsibilities of a certified Level 3 and the content of Part C of the basic examination for Level 3 (see Table 4), additional training about the other NDT methods may be necessary.

Table 2. Minimum training requirements

NDT method	Level 1 (days)	Level 2 (days)	Level 3 (days)
ET	5	6	6
MT	3	2	4
PT	3	2	3
RT	5	10	5
UT	8	10	5
ACFM	5	6	6
VT	3	2	3
Basic knowledge	(Direct access to Level 3 examination parts A, B and C)		Part A – 3 days Part B – 1 day Part C – 8 days Total – 12 days

(a) One-day duration is at least seven hours, which can be achieved on a single day or by accumulating hours. Training in days is achieved by dividing the total number of accumulated hours by 7. However, training organisations should consider adverse human factors associated with extended periods of classroom training and limit training periods accordingly. Consequently, a mandatory maximum of 8 hours per day shall be applied with a minimum of 30 minutes of break time during the training day. It is accepted that a student may be expected to take part in homework exercises or self-study outside classroom training; however, the ATO should make every effort to minimise this to two hours per night. Self-study and homework hours may be considered as part of the overall training requirements.

(b) For RT, training days do not include radiation safety training. Further guidance on additional training days for additional techniques, techniques within the RT method and training required for transitional training are given in Annex E of this document.

(c) The 12 days of training required for Level 3 basic qualification may be accrued through a combination of classroom training at a BINDT-approved training organisation (minimum 50%), self-study and distance learning. However the training is accrued, the training undertaken shall be recorded for presentation to PCN if requested. This note relates to the Level 3 basic examination (see 3.6), and reductions in training duration of up to a maximum of 11 days may be granted based on holding:

I. Product Technology (Level 3 Basic Part A)

The candidate holds a certificate covering:

- A multi-sector – maximum reduction of 3 days
- Castings – maximum reduction of 1 day
- Welds – maximum reduction of 1 day
- Wrought products – maximum reduction of 1 day.

II. Level 3 General Theory (Basic Part C)

(Level 2 knowledge required in four NDT methods, one of which is a volumetric method).

The Level 3 candidate holds Level 2 certification in:

- Four NDT methods – maximum reduction of 8 days
- Three NDT methods – maximum reduction of 6 days
- Two NDT methods – maximum reduction of 4 days
- One NDT method – maximum reduction of 2 days.

Note: These are the MAXIMUM permitted reductions in mandatory training days and are not compulsory. The ATO and the applicant should finalise any reduction to be applied by agreement based upon the individual's learning needs.

7.2.8 The possible reductions in training duration are as described hereafter, provided that, when several reductions are applicable, the total reduction does not exceed 50% of the training duration. Any reduction requires acceptance by BINDT and shall ensure that competence is maintained.

(a) **For Level 3** – for candidates who have successfully completed the Northampton University NDT degree, the total required training duration may be reduced by up to 50%. The Northampton University NDT degree is acceptable to BINDT, as BINDT has had direct input into the content and control of this degree.

Note: NDT or associated degrees from other global universities or learning centres may be acceptable to BINDT on application and review. Holders of such certification should forward details to BINDT for consideration.

(b) **For Levels 1 and 2** – when the scope of activity is limited in application and/or in technique (and not covered in Annex E), the training scope and duration may be reduced by up to 50%.

Note: Examples of such limitations include those related to application (for example, automated ET, UT of bar, tube and rod or normal beam ultrasonic thickness and lamination testing of rolled steel plate) and to technique (for example, leak testing only using bubble test, yoke for magnetic particle).

7.3 Industrial NDT experience

7.3.1 General

7.3.1.1 The minimum duration of experience to be gained in the sector where the candidate is seeking certification shall be as given in Table 3, with the possible reductions given in clause 7.3.3. When the candidate is seeking certification in more than one method, the total time of experience shall be the sum of the experience in each method.

7.3.1.2 For Level 2 certification, the intent is that work experience consists of time as a Level 1. If the individual is being qualified directly to Level 2, with no time at Level 1, the experience shall consist of the sum of the times required for Level 1 and Level 2.

7.3.1.3 Industrial NDT experience in the appropriate sector may be acquired either prior to or following success in the qualification examination or a combination thereof.

7.3.1.4 Where the applicable experience requirement is not met at the time of examination, the candidate may gain the required experience following successful completion of the applicable examination; the results of the examination shall remain valid for up to two years to allow for post-examination experience gathering.

Note: Candidates successfully completing the Level 2 examination but who do not satisfy the Level 2 experience requirements at the time of examination may be issued with Level 1 certification while the additional Level 2 experience is gained. This is dependent upon the candidate satisfying the Level 1 experience requirements. See PCN24/CP29 for further details. The post-examination experience gained towards Level 2 certification shall consist of supervised Level 2 tasks, not the work conducted as a certified Level 1 and pertaining to Level 1 tasks.

7.3.1.5 For Levels 1 and 2, documentary evidence (in a form acceptable to BINDT – PCN24/PSL30 or equivalent) of experience satisfying the following requirements shall be confirmed by the employer and submitted to the BINDT AQB prior to examination, or directly to BINDT prior to the award of PCN certification in the event that experience is gained after examination.

7.3.1.6 Level 3 candidates must have the required amount of NDT experience prior to attempting any main method examination. The minimum duration of experience for certification shall be as defined in Table 3.

Table 3. Minimum industrial experience

NDT method	Experience in days					
	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, ACFM, RT, UT, TT	45	135	180	270	450	540
MT, PT, VT	15	45	60	180	240	360
RI (when in isolation)	N/A	N/A	90	N/A	N/A	N/A

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.

*Higher education recognised by BINDT is restricted to a recognised degree in non-destructive testing.

Note: Experience may be acquired either prior to (for Level 1 and 2 entry only) or following success in the qualification examination. However, the chances of success in a PCN examination may be significantly reduced if candidates have little or no current experience in the application of the NDT method in the sector concerned.

In the event that the PCN examination has been passed by a candidate lacking the experience required for certification, BINDT will issue a letter of attestation to the successful candidate indicating that they have passed the qualification examination and needs only to meet the experience requirement in order to be certificated. Records of experience obtained post examination shall be presented on PCN form PCN24/PSL30 or PCN24/PSL57C as appropriate.

7.3.2 Level 3

7.3.2.1 Level 3 responsibilities require knowledge beyond the technical scope of any specific NDT method. This broad knowledge may be acquired through a variety of combinations of education, training and experience. Table 3 details the minimum experience required for Level 3 candidates.

(a) For Level 3 candidates who have successfully completed a degree or diploma at a technical school or completed at least two years of engineering or science study at an accredited college or university (proof of qualifications will be required), they may be eligible for a reduction in the amount of experience required by 50%.

(b) For Level 3 certification, the experience gained is cumulative across the periods where varying levels of certification are held. The cumulative experience shall be calculated using the scenarios given in Table 3.

7.3.3 Possible reductions

7.3.3.1 The possible reductions in duration of experience are as described hereafter, provided that, when several reductions are applicable, the total reduction does not exceed 50% of the experience duration. Any reduction does require acceptance by BINDT.

- 7.3.3.2 When considering possible reduction in the duration of experience, BINDT takes into consideration the following elements:
- (a) The quality of experience can be variable and skills may be assimilated more quickly in an environment where the experience is concentrated and has a high degree of relevance to the certification sought.
 - (b) When gaining experience simultaneously in two or more surface NDT methods, *ie* MT, PT and VT, the experience gained in the application of one NDT method may be complementary to the experience gained in one or more other surface methods.
 - (c) Experience in one sector of an NDT method for which certification is already held may be complementary to the experience in a different sector of the same NDT method.
 - (d) The level and quality of education possessed by the candidate should also be considered. This is particularly the case for the Level 3 candidate, but it can also be applicable for other levels.
- 7.3.3.3 A certified Level 1, 2 or 3 adding an additional method may be permitted a reduction of required experience of 25% for that additional method.
- 7.3.3.4 A certified Level 1, 2 or 3 individual changing sector, adding another sector or technique for the same NDT method shall be required to gain additional experience of at least 25% of the experience required in Table 3 and this shall never be less than 15 days in duration.
- 7.3.3.5 When the scope of certification sought is limited in application (*ie* thickness measurement or automated testing), experience duration may be reduced by up to 50% but shall not be less than 15 days.
- 7.3.3.6 Up to 50% of the industrial experience time may be achieved by a structured experience programme (SEP). One day of attendance at the SEP may be equivalent to a maximum of five days of industrial experience. The SEP shall include all typical tasks (see Clause 6) of the level, method and sector concerned. The additional intent is to gain specific product and technique knowledge. The SEP shall be approved in advance by the Certification Body and shall be available for audit by the Certification Body.

7.4 Vision requirements

- 7.4.1 Guidance on the PCN requirements for colour perception and acuity of vision, together with the qualifications of those administering the vision tests, is given in PCN document PCN24/PSL44. The requirements are reproduced below for ease of information.
- 7.4.2 Candidates for PCN examinations will be required, on the day of the examination, to provide proof of a satisfactory vision test conducted within the 12 months preceding the examination.
- 7.4.3 **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.
- 7.4.4 **Colour vision/perception:** prior to certification, recertification or renewal, the candidate/certificate holder shall demonstrate that a colour vision test has been administered within the previous five calendar years. The test shall be sufficient that the candidate can distinguish and differentiate contrast between the colours or shades of grey used in the NDT method 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.

Note 1: The Ishihara 24 plate test is an example of a suitable colour vision test.

Note 2: Subsequent to certification, the documented tests of visual acuity shall be carried out at least every twelve months and verified by the employer.

7.4.5 Personnel administering vision tests

- 7.4.5.1 Near-vision acuity testing, colour vision and/or greyscale perception verification(s) shall be administered by a licensed physician, nurse, ophthalmologist or optometrist, or by another trained person who is approved and documented by a Level 3 personnel acting on behalf of the employer. Level 3 personnel may administer vision tests providing they have received documented training regarding the process of administering the tests required.

8. Examinations

8.1 General

8.1.1 An examiner shall not be permitted to examine any candidate that he/she has trained for the examination (for a period of two years from the conclusion of the training delivered) or who is employed in the same organisation as the examiner. This includes associated organisations operating under the control of the AQB employing the examiner.

Note: Only BINDT authorises examiners and examination invigilators within the PCN Scheme and all examination personnel are required to declare any interest in a candidate that presents for examination. In case of doubt regarding maintenance of impartiality, an AQB shall consult with BINDT Certification Services before conducting examinations.

8.2 Examination application

8.2.1 Applications shall only be completed by the candidate using the latest version of the application form available direct from www.bindt.org

8.2.2 Initial enquiries to the BINDT Authorised Qualifying Body may be by telephone. Formal applications must be made on a BINDT application form (PCN24/PSL57A) available direct from www.bindt.org or from the AQB. No examination appointment can be considered confirmed until a correctly completed application form has been received.

8.2.3 Application forms ask for specific details on experience and training to the published syllabus and must be signed to the effect that these details are correct. In the event of a false statement being discovered, any certification awarded as a result of the examination will be null and void.

8.2.4 Candidates shall supply, to the AQB, verifiable evidence of satisfying all eligibility criteria, ie valid visual acuity and experience prior to attending for an examination. In the event that BINDT discovers that the required evidence of eligibility is not submitted, any examination results or certification awarded as a result of the examination will be null and void.

8.2.5 Applications dependent upon the individual holding appropriate certification must be supported by acceptable evidence of such certification; photocopies are acceptable at this stage, but irrefutable evidence of certification, together with proof of identity, shall be presented to the examination invigilator on the date of examination. Failure to comply with this clause will result in a refusal to examine.

8.2.6 The location of all Authorised Qualifying Bodies, the scope of examinations for which they are approved and contact information is given in document PCN24/PSL4, copies of which are available from the British Institute of NDT.

8.2.7 Provision is made wherever possible for candidates with a disability that may affect their ability to complete PCN examinations. For example, up to 25% additional time may be allowed in examinations for candidates who have dyslexia. The candidate is responsible for bringing their disability to the attention of the examining body. The candidate is required to provide supporting medical evidence to the AQB prior to examination.

8.2.8 An extension of up to 25% is also authorised in the time allowed in PCN written examinations for candidates whose first language is not that in which the examination is presented and who are likely to experience difficulty in completing examinations in the published time allowed. AQB's may allow this additional time at their discretion, provided a record is retained with the examination records. Arrangements should also be made for an interpreter to be present in order to supplement the written examination by delivering the questions orally if necessary to establish that the candidate has a firm grasp of the topic being examined. In such instances, the AQB shall ensure that impartiality and security is maintained and that the interpreter is not known to the candidate.

8.3 Examination equipment and documentation

8.3.1 BINDT Authorised Qualifying Bodies will provide all necessary NDT equipment, although candidates may bring and use their own equipment by prior arrangement with the AQB. Any item of apparatus brought by a candidate that is unreliable or rendered unserviceable during the examination shall be replaced by the candidate. Guidance on suitable equipment is available directly from the BINDT Authorised Qualifying Body.

8.3.2 Digital instrumentation capable of storing calibration details, formulae or data relevant to NDT must be deprogrammed prior to attempting any PCN practical examination using that instrument. The candidate will be

required to demonstrate compliance and, in the event that the BINDT Authorised Qualifying Body is not satisfied that deprogramming is effective, the candidate may be required to use equipment provided by the AQB or be refused examination.

- 8.3.3 All necessary reference standards will be provided by the BINDT Authorised Qualifying Body. Candidates must not be in possession of any reference standards, other than those provided by the AQB, during a PCN examination.
- 8.3.4 Provided security of examination materials can be guaranteed, candidates will be allowed the use of an AQB-provided PC or laptop computer in the NDT instruction and NDT procedure writing section of the PCN examination. On no account will the use of a candidate's own computer be permitted during a PCN examination and, for reasons of security, candidates are not permitted to bring any form of computer, including hand-held devices (PDAs, etc) into the examination facilities at a PCN AQB or examination centre. The provision of computers for candidate use is optional for any BINDT AQB.
- 8.3.5 The use of a pocket calculator is permissible in PCN examinations provided that it is of a type that does not permanently store programs, formulae or data relevant to NDT.
- 8.3.6 Mobile telephones, audio, video or other recording devices are not permitted in any PCN examination area.

8.4 Examination time

- 8.4.1 For Level 1 and Level 2, the total time for the examination elements shall be based on two minutes per multiple-choice examination question for general examination element and three minutes per multiple-choice examination question for specific examination element. The time allowed for examinations comprising narrative answer questions varies but is specified on the examination paper presented to the candidate.
- 8.4.2 For Level 3, the total time for the examination elements shall be based on three minutes per multiple-choice examination question in items B, D and E and two minutes for items A and C.
- 8.4.2.1 The time allowed for examinations comprising narrative answer questions varies but is specified on the examination paper presented to the candidate.
- 8.4.3 The practical examination is of sufficient duration, complexity and scope to adequately verify the candidate's ability to apply the NDT method to real test situations. The time allowed for the practical examination is detailed in the relevant BINDT documents that support PCN24/GEN.

8.5 Qualification examination content – Levels 1 and 2

8.5.1 Examination elements

- 8.5.1.1 For Level 1, the examination shall consist of the following examination elements:
- General examination element
 - Specific examination element
 - Practical examination element.
- 8.5.1.2 For Level 2, the examination shall consist of the following examination elements:
- General examination element
 - Specific examination element
 - Practical examination element
 - NDT instruction writing element.

8.5.2 General examination element (Levels 1 and 2)

- 8.5.2.1 The general examination shall be a closed-book examination, which includes only validated questions selected in an unpredictable way from the collection of general questions approved by the British Institute of NDT at the time of the examination. The number of questions in each NDT method general examination is as defined in Table 4. Authorised Qualification Bodies are given controlled and secure access to the PCN question bank and established/approved examination papers. The general and specific written examinations comprise mainly multi-choice answer questions (exceptions being the radiation protection examinations). The candidate shall not be given access to reference materials during the examination but may be given access to formulae, etc, at the discretion of the AQB.

Table 4. Minimum number of general examination questions

NDT method	Level 1	Level 2
ET/ACFM	40	40
PT/MT/VT	40	40
RT	40	40
RI	N/A	40
UT	40	40
UT-PA/UT-TOFD/UT-TFM	N/A	N/A*
BRS (Basic Radiation Safety)	30	N/A
ARS (Advanced Radiation Safety)	N/A	30

*To attempt UT-PA/UT-TOFD/UT-TFM Level 2, candidates must first be certified to manual UT Level 2

8.5.3 Specific examination element

- 8.5.3.1 The specific examination shall be a closed-book examination, which includes only validated questions selected in an unpredictable way from the collection of specific questions approved by the British Institute of NDT at the time of the examination. Authorised Qualification Bodies are given controlled and secure access to the PCN question bank and established/approved examination papers.
- 8.5.3.2 Single-sector papers only: all Level 1 specific theory papers have 25 questions. All Level 2 specific theory papers have 30 questions.
- 8.5.3.3 During the specific examination, the candidate shall be required to answer multiple-choice questions, including questions involving calculations, written procedures and questions on product technology, codes, standards and specifications. The candidate shall be given access to the applicable codes, standards, specifications and documents referenced within the examination.
- 8.5.3.4 If the specific examination covers two or more product sectors, the questions will be spread across the sectors concerned. Multi-sector Level 1-specific papers will contain 35 questions, including product technology questions. Multi-sector Level 2-specific papers will contain 40 questions, including product technology questions.

8.5.4 Practical examination element (see PCN24/CP22 for information on grading)

- 8.5.4.1 The practical examination element shall involve applying the test to prescribed specimens, recording (and, for Level 2 candidates, interpreting) the resulting information to the degree required and reporting the results in the required format. Specimens used for training purposes shall not be used for examination.
- 8.5.4.2 Each specimen shall be uniquely identified and have a specimen master report, which includes all of the equipment settings (if applicable) used to detect specified discontinuities. Markings shall not interfere with the practical testing or inspection of the specimen and shall, wherever practicable, be concealed from the candidate while the specimen is being used for examination to prevent potential information correlation by candidates. The mastering and control requirements regarding practical examination specimens are detailed in BINDT document PCN24/CP09.
- 8.5.4.3 Specimens shall be sector (one or more) specific, representing field geometries and shall contain discontinuities representative of those likely to occur during manufacturing or in service. They may be natural or artificial. Datasets, digital radiographic images and/or films can be used instead of physical specimens, but at least one physical specimen shall be examined.
- 8.5.4.4 The specimens used for the practical test shall be selected from a collection of representative specimens approved by BINDT during the approval audits at the AQB. Each test specimen shall contain one or more of the discontinuities defined in CEN/TS 15053. An exception to this requirement is for RT, where the ability to assess and sentence discontinuities is addressed through the separate radiographic interpretation examination element – see 8.5.4.5 below.
- 8.5.4.5 Specimens used for adjustment or for determination of thickness, coating or material properties do not need to contain discontinuities. For RT, the specimens to be tested do not need to contain discontinuities if these are exhibited in the datasets or radiographic images for Level 2 interpretation.

- 8.5.4.6 The Level 1 candidate will follow the NDT instruction(s) provided by the AQB/examiner, while the Level 2 candidate will select the applicable NDT technique and determine the operating conditions related to a given code, standard or specification.
- 8.5.4.7 The practical examination is designed to ascertain the ability of the candidate to:
- make the required settings.
 - operate the test equipment properly.
 - perform testing of prescribed components relating to the industrial sector concerned.
 - record and analyse the resultant information to the degree required according to written instructions for Level 1 or a code, standard, specification or a procedure for Level 2.
- 8.5.4.8 The number of areas or volumes to be tested and the time allowed during the practical examination will be adequate to the level and NDT method, and to the sector concerned, and is defined in the relevant BINDT documents that support PCN24/GEN.
- 8.5.4.9 For those examinations where discontinuities are normally replaced by artificial sources or data, the Level 1 candidate shall demonstrate the ability to set up the equipment, verify its sensitivity and record the test data; the Level 2 candidate shall also demonstrate the ability to interpret and evaluate previously recorded test data.
- 8.5.4.10 The Certification Body shall ensure that the number of specimens to be tested is adequate to the level, NDT method and sector concerned and that the specimens contain reportable discontinuities. The number of specimens to be tested in the Level 1 and Level 2 practical examinations shall be in accordance with Annex B.

8.5.5 NDT instruction writing examination element (Level 2 only)

- 8.5.6 The NDT instruction writing examination element shall involve the creation of a written NDT instruction by the Level 2 candidate. The written instruction shall relate to one of the specimens tested by the candidate in the corresponding practical examination element. This shall be an open-book examination, where the candidate is provided with the relevant standard, code or specification, together with a copy of PCN24/CP25.
- 8.5.7 Annex D.2 of this document provides guidance on the examination weighting for the written instruction examination element.

8.6 Qualification examination content – Level 3

8.6.1 General

- 8.6.1.1 All candidates for initial Level 3 certification in any NDT method shall have successfully completed (with a grade of $\geq 70\%$) the practical examination for Level 2 or hold a current Level 2 certificate in the relevant sector and method. This requirement is for initial certification only. For renewal or recertification, the options for proving ongoing practical competence are stated in the renewal/recertification sections of this document.
- 8.6.1.2 A candidate who is Level 2 in the same product sector or has successfully passed a Level 2 practical examination for the method in an industrial sector (see Annex A.3) in which the product is commonly tested (for example castings and wrought products) is exempt from passing the Level 2 practical examination again. This exemption is only valid for the product sectors covered by the industrial sector concerned and, in any other circumstances, the relevant sector is the sector in which the candidate seeks Level 3 certification.

8.6.2 Basic examination element (Parts A, B and C)

- 8.6.2.1 This written examination shall assess the candidate's knowledge of the basic subjects using at least the number of multiple-choice examination questions shown in Table 5. The total time allowed for this examination shall be calculated based upon the permitted three minutes per question.
- 8.6.2.2 The basic examination shall be passed first, and the result will remain valid provided that the first main method examination is passed within five years after passing the basic examination. A candidate holding a valid Level 3 certificate is exempt from the need to retake the basic examination.
- 8.6.2.3 Examination questions shall be selected from the current collection of questions approved by BINDT at the time of the examination.

Table 5. Level 3 basic examination parts – number of examination questions

Part	Examination	Number of questions
A	Materials technology and science, including typical defects in a wide range of products, including castings, welds and wrought products.	30
B	Qualification and certification procedure in accordance with this document.	10
C	15 general questions at Level 2 standard for each of four NDT methods chosen by the candidate, including at least one volumetric NDT method (UT or RT).	60

8.6.3 Main method examination element (Parts D, E and F)

- 8.6.3.1 This written examination shall assess the candidate's knowledge of the main method subjects using the minimum required number of multiple-choice questions approved by the British Institute of NDT at the time of the examination. The number of questions shall be as defined in Table 6.
- 8.6.3.2 The duration of the examination is 90 minutes for part D and 60 minutes for part E (based on three minutes per question). The permitted duration for part F shall be 6 hours.
- 8.6.3.3 Level 3 candidates not holding appropriate Level 2 certification shall pass a relevant Level 2 practical examination (except that they need not draft an NDT instruction).
- 8.6.3.4 The successful candidate for PCN Level 3 certification may be issued Level 2 certification in the same NDT method and sector without further examination, provided the relevant PCN Level 2 practical examination was passed in order to gain the Level 3 certification concerned. The resultant Level 2 certification will be valid for only those categories in which success in the practical examination was achieved and will expire on the same date as the related Level 3 certification, and the procedure for revalidation will be the same as for any Level 2 certificate. Candidates seeking the issue of a PCN Level 2 certificate under the procedure defined in this clause will submit their request using form PCN24/PSL70 (Request for Level 2 issue to Level 3 holder).

Table 6. Main method examination

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

8.6.4 Examination exemptions

- 8.6.4.1 Candidates in initial PCN examinations are not required to attempt an examination part in which they have already achieved success during the process of gaining PCN certification, so long as the subject examination part has (or had) the same (or a greater) scope as that part for which an exemption is claimed and the resultant certification remains valid.
- 8.6.4.2 Existing PCN Level 3 certificate holders who are attempting additional Level 3 examinations are exempt from the basic examination (parts A, B and C). In addition, where a candidate holds valid certification at Level 3 covering the same method in a different sector, part D (a general examination covering the Level 3 knowledge relating to the test method) shall also be exempt.

Example: A candidate holding RT (Welds) at Level 3 is exempt from parts A, B, C and D if attempting RT Level 3 Castings.

- 8.6.4.3 Existing PCN Level 3 certificate holders wishing to gain Level 2 certification in the same sector and NDT method will be exempt of all examination parts other than the Level 2 practical examination.
- 8.6.4.4 Level 3 candidates who hold PCN (or equivalent acceptable to BINDT) Level 2 certificates are exempt from part or the whole of the Level 3 basic examination part C. The extent of the exemption that may be claimed shall be relevant to the test methods in which they hold Level 2 certification. However, the candidate must demonstrate, or prove by valid Level 2 certification, a general knowledge at Level 2 of at least four NDT methods, including at least one relating to a volumetric NDT method (UT or RT).
- 8.6.4.5 If any candidate elects to claim an exemption to which they are entitled, the mark obtained in the examination, which leads to the issue of certification under which such exemption is claimed, where the actual examination mark cannot be ascertained, a mark of 70% will be used.
- 8.6.4.6 Level 3 candidates who hold a valid Level 2 in the same sector or have successfully passed a Level 2 practical examination for the method in an industrial sector are exempt from passing the Level 2 practical examination again. This exemption is only valid for the product sectors covered by the industrial sector concerned and, in any other circumstances, the relevant sector is the sector in which the candidate seeks Level 3 certification.
- 8.6.4.7 For the purpose of claiming exemptions, certification issued by other independent NDT personnel certification bodies may be considered by the British Institute of NDT for equivalence (refer to PCN document PCN24/PSL49 for further information).
- 8.6.4.8 A candidate may elect to include, in their examination, any part or parts from which they could be exempt. However, a resultant failure in any such part will cause the candidate to fail that examination and no certification will be issued. The validity of any existing PCN certificates held by the candidate will be unaffected by such failure.
- 8.6.4.9 A candidate for radiography who claims an exemption in respect of Basic Radiation Safety should note that PCN radiography certification is valid only so long as the holder holds any other level of PCN radiation protection certification, or valid radiation safety certification recognised by the British Institute of NDT. Failure to hold a valid radiation safety qualification will result in the radiography certificate being withdrawn.

9. Conduct of examinations

9.1 General

- 9.1.1 All PCN examinations shall only be conducted by BINDT or in examination centres (AQB) established, approved and monitored by BINDT.
- 9.1.2 At the time of 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 upon demand.
- 9.1.3 Candidates must not be in possession of any equipment or documentation, other than that provided by the examination centre, during a qualification examination.
- 9.1.4 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 qualification examinations for a period of at least one year.
- 9.1.5 Candidates proved to have cheated in a PCN examination will not be accepted as a candidate for any PCN examination for a minimum period of one year from the date of the examination in which cheating was established to have taken place. No examination results will be issued for those examination parts already completed and a letter will be sent to the candidate concerned and to the employer or sponsor explaining why the examination was terminated. The actual extent of a given sanction shall be at the discretion of BINDT/PCN. Further information on non-ethical behaviour and the relevant sanctions is given in Section 14 of this document (Conditions of certification).

9.2 Preparation and conduct of examinations

- 9.2.1 All examinations shall be conducted in examination centres established, approved and monitored by BINDT, either directly or through an AQB.
- 9.2.2 Written (whether e-assessment or conventional) and practical qualification examinations shall be invigilated by an examiner or by one or more trained and authorised invigilators placed under an examiner's responsibility.

- 9.2.3 Examination questions shall be validated by BINDT. When conventional pre-prepared paper-based examinations are used, the examination papers shall be validated and approved by an examiner and the grading shall be done in accordance with procedures approved by BINDT. When e-assessment systems that select questions, present the 'written' examination to a candidate on a computer and grade the examinations are used, the Certification Body shall validate and approve the e-assessment system.

9.3 Grading of examinations

- 9.3.1 The general, specific and practical examinations shall be graded separately. When conventional pre-prepared paper-based examinations are used, an examiner shall be responsible for the grading of the examinations by comparison with model answers. At the option of BINDT, e-assessment systems that automatically score candidate responses against stored data and grade the completed written examination according to prepared algorithms may be used.
- 9.3.2 Grading of PCN practical examinations is detailed in Annex D of this document and PCN24/CP22. The pass mark for each examination element, and for Levels 1 and 2, for each examination specimen tested is 70%.
- 9.3.3 To be eligible for certification, the candidate shall obtain a minimum grade of 70% in each element of the examination: general, specific, practical and written instruction (for Level 2). In addition, for the practical examination element, a minimum grade of 70% shall be obtained for each specimen tested, and for the written instruction element, as applicable.
- 9.3.4 The Level 3 main method examination shall not be graded until such time as the candidate has been successful in the Level 3 basic examination. The pass mark for each examination element (Part) is 70%. (Parts A, B, C, D, E and F, as applicable to the relevant examination parts attempted.)
- 9.3.5 When conventional pre-prepared paper-based examinations are used, an examiner shall be responsible for the grading of the examinations by comparing the replies given by the candidate against answer keys approved by the Certification Body. Each correct answer scores 1 point and the mark attributed to the tests is the sum of the points obtained. For the final calculation, the mark of each test is expressed as a percentage.
- 9.3.6 As of the launch of the PCN24 Scheme upgrade, the former PCN Distinction grading has been removed to align the scheme fully with ISO 9712:2022. All candidates are issued with a comprehensive results notice detailing individual examination element scores attained by the candidate. Employers requiring a higher pass-grade are advised to refer to these results notices when determining a certificate holder's eligibility under their own requirements for employment.

Note: All current distinction gradings will remain valid until the certificate holder undergoes the next recertification or renewal cycle.

10. Re-examination/retest

- 10.1 A candidate who fails in an examination element (general, specific, practical or written instruction writing) in an examination may be re-examined a maximum of two times in order to achieve a pass grade of 70%.
- 10.2 The candidate need only reattempt the examination element(s) that were deemed a 'fail' at the original attempt. In terms of Level 1 and Level 2 practical re-examinations, the candidate shall reattempt the practical element as detailed in the applicable method appendices. This may be the full practical element or partial element (where the practical is categorised or separated into different parts).
- 10.3 The re-examination shall take place no sooner than 30 days from the date of the original examination and no later than one year after the original examination. The only exception to the 30-day rule is where further (supplementary) training is delivered to address areas of weakness identified in the initial examination, in which case the re-examination is permitted seven days after the date of the initial examination. The training/examination body shall keep records of the supplementary training delivered. BINDT assigns responsibility for ensuring the suitability of the supplementary training to the AQB (or ATO), which may be reviewed during routine BINDT audits.
- 10.4 Most recent examination results will be valid. Previous results will not be used.
- 10.5 A candidate who fails all permitted re-examinations shall apply for initial examination according to the procedure established for new candidates.
- 10.6 A candidate whose examination results have not been accepted for reason of fraud or unethical behaviour shall wait at least 12 months before re-applying for examination.

11. Renewal and recertification

- 11.1 BINDT/PCN issues certificates at issue 01 or issue 02. Issue 01 certificates are issued after initial examination or after a five-year or ten-year recertification by examination. Issue 02 certificates are issued following the recertification of an issue 01 certificate by claimed points in accordance with Annex C of this document and BINDT document PCN24/CP16.
- 11.2 For Level 1 and Level 2 applicants, the renewal/recertification examination shall consist of the practical element as detailed in the applicable main method appendices. In addition for Level 2, the candidate is required to complete the written instruction element.

11.3 Levels 1 and 2 (five-year renewal of issue 01 certificates by claimed points)

- 11.3.1 Prior to the completion of the period of validity following certification and recertification, renewal of certification, for a further period, shall be by application to BINDT/PCN using form PCN24/CP16. The applicant is required to provide the following:
- (a) Completed PCN24/CP16 form;
 - (b) Documentary evidence of a satisfactory near vision acuity examination, taken within the preceding 12 months;
 - (c) Documentary evidence of a satisfactory colour vision and/or greyscale perception examination taken within the preceding 60 months; and
 - (d) Verifiable documentary evidence of continued satisfactory work activity without significant interruption in the method and sector for which certificate renewal is sought. See Annex C for guidance on claiming renewal by points.

11.4 Levels 1 and 2 (renewal/recertification of issue 01 or issue 02 certificates by examination)

- 11.4.1 The PCN certificate holder shall apply, by submission of a completed PCN24/PSL57A form, directly to the AQB.
- 11.4.2 For recertification examinations, the candidate shall achieve a pass grade of 70% for each specimen attempted (and, for Level 2, the written instruction). Candidates who fail to achieve a pass grade of 70% in any of the relevant examination elements are permitted two re-attempts, as detailed in Section 10 previous.
- Note 1: Level 3 certificate holders renewing their Level 2 practical certification in support of their Level 3 certificate need not complete a written instruction as part of the recertification process.*
- 11.4.3 In the event of failure in a renewal or recertification examination, BINDT will immediately cancel the certificate concerned, issuing a new record of certification that no longer shows the competence concerned and sending this with an explanatory letter to the certificate holder requesting the return of the superseded record of certification, which is a mandatory requirement. The cancellation of the certificate will not affect the eligibility of the candidate to attempt the two permitted retests within six months.
- 11.4.4 In the event of failure in the two allowable retests, the certificate shall not be revalidated and, to regain certification for that level, sector and method, the candidate shall apply for certification as an initial candidate. For Level 1 and 2, no examination exemptions shall be awarded by virtue of any other valid/recognised certification held.

11.5 Level 3 (five-year renewal)

- 11.5.1 The procedure for renewal and recertification of PCN Level 3 certificates is detailed in PCN document PCN24/CP16.
- 11.5.2 The PCN certificate holder shall apply, by submission of a completed PCN24/PSL57A form, directly to the AQB (for renewal by examination) and directly to BINDT (for renewal by points).
- 11.5.3 For all Level 3 renewals/recertifications, the individual may decide between the examination or credit system for recertification. If the credit system is chosen and requires submission of employer's documents or access to an employer's premises, the individual shall provide to the Certification Body a written statement of approval from the employer.
- 11.5.4 In both cases (written examination or credit system), the individual shall either provide appropriate documented evidence, acceptable to the Certification Body, of their continued practical competence in the method or pass a Level 2 practical examination, as specified, except for the drafting of NDT instructions. The options acceptable to BINDT for proving continued practical competence are as follows:
- (a) A valid and current PCN Level 2 certificate in the method concerned.

- (b) Other ISO 9712 Level 2 certification issued by a Recognised Certification Body that is registered under the EFNDT Mutual Recognition Agreement (MRA) or which is accredited by a body in membership of the International Accreditation Forum (IAF) against the requirements of ISO/IEC 17024 to issue certification in compliance with the current editions of EN ISO 9712.
 - (c) A valid and current EN 4179 Level 2 certificate in the method concerned, issued following examination at a UK National Aerospace NDT Board (NANDTB)-approved Outside or Inside Agency.
 - (d) Provision of appropriate documented evidence that may include annual competence assessments conducted in the work environment or at a BINDT ATO.
 - (e) Successful completion of the Level 2 practical examination element within the preceding three months of the renewal or recertification examination.
 - (f) By provision of other documentary evidence for review by BINDT/PCN. This option is not recommended and may be rejected following review. Acceptance via this option remains at the discretion of BINDT/PCN.
- 11.5.5 A candidate who does not meet the requirements of the Level 3 recertification by the structured credit system (PCN24/CP16) shall recertify by examination. In the event of failure at the first attempt at recertification by examination, only one retest of the recertification examination shall be allowed within 12 months of the date of application for recertification via the PCN24/PSL57A form.
- 11.5.6 For candidates who proceed directly to the recertification examination process. In the event of failure in the two allowable retests, the certificate shall not be revalidated and, to regain certification for that level, sector and method, the candidate shall apply for certification as an initial candidate. For Level 3, the candidate shall be required to achieve success in the appropriate main method examination.

12. Publication of examination results

- 12.1 All candidates will be issued with a standard PCN examination results notice by the BINDT Authorised Qualifying Body, normally within 28 days of completion of examination, subject to all examination fees being paid.
- 12.2 A copy of the results notice will be sent to the organisation paying the examination and certification fees, and to the PCN Certification Records Office, which will issue certification to candidates fulfilling all pre-requisites for certification, *ie* training, experience, satisfactory vision, success in the relevant examination and payment.
- 12.3 Failure by the candidate or their sponsor/employer to make payment for any examination within 12 months of the examination date shall be considered invalid and the results notice will not be accepted by PCN.
- 12.4 Candidates who have met all requirements for certification, with the exception of having the required minimum experience, will be advised by the PCN Certification Records Office on how to record experience gained under appropriately qualified supervision. Applications for certification post-experience are made directly to the PCN Certification Records Office on form PCN24/PSL57C.
- PCN24/PSL57C requirements – all correct post-experience applications received into PCN **before the two-year deadline** will be validated. If an application for post-experience is received by PCN with missing information and goes past the two-year deadline, the PCN holder will revert back to an initial candidate. To ensure compliance with ISO 9712, certification should not be validated where post-experience applications are not complete by the two-year deadline.
- 12.5 Candidates who fail any part of the examination will be provided with brief reasons for failure on this notice by the AQB.

13. Certification

- 13.1 Successful candidates will be issued a PCN certificate of conformance, which indicates that all conditions for certification, as detailed in the present specification document, are met. Issue of certification normally takes place within 28 days of BINDT receiving the formal notification of success in the examination from the AQB. However, where a candidate for certification has achieved a pass in all relevant examination parts but has not yet satisfied the pre-requisite experience and vision requirements, the issue of certification may be deferred for up to two years from the date of success in the PCN examination.
- 13.2 Once the PCN Certification Records Office is in possession of evidence that all pre-requisites (training, experience, satisfactory vision and success in the relevant PCN examination) have been satisfied, a PCN certificate stating the level and category awarded will be published.

- 13.3 The PCN record of certification and/or corresponding wallet card includes the following information as a minimum:
- (a) The full name of the certified individual and (optional) date of birth of the certified individual.
 - (b) A unique identification (PCN number).
 - (c) The signature of the certificated individual.
 - (d) A photograph of the certificated individual (either on the certificate or a wallet card).
 - (e) A name and address of the Certification Body (BINDT/PCN).
 - (f) The scope of the certification, including reference to this document, the NDT method(s) and level of certification, and/or applicable techniques and sector(s), including issue date.
 - (g) Any limitations to the certification, if applicable.
 - (h) The effective date of certification and date of expiry.
 - (i) The signature and/or authorisation of a designated representative of the Certification Body (BINDT/PCN).
 - (j) Contact information or website address to issuing Certification Body database for verification purposes.

Note: *By issuing the certificate and/or the corresponding wallet card, the British Institute of NDT attests to the qualification of the individual but does not give any authority to operate.*

14. Conditions of certification

14.1 General

- 14.1.1 Certification is granted, extended, suspended, withdrawn or revalidated by the Certification Body (BINDT/PCN). The maximum period of validity of the certificate is five years. To be valid, certificates shall be supported by a certificate of acceptable visual acuity and colour perception as detailed in section 7.4 of this document.

14.2 Validity of certification

- 14.2.1 It is the responsibility of the certificate holder to initiate the procedure required for certification or recertification.
- 14.2.2 The period of validity of the certification is normally of five years from the date of certification, and the wallet card (where issued) is normally ten years. The expiry date is indicated on the certificate and/or wallet card.
- 14.2.3 Initial certification will be issued from the date the results notice was received by PCN and not before.
- 14.2.4 Where success in the recertification procedure occurs no later than six weeks prior to expiry of the certificate, the new certificate will expire five years after the expiry date of the certificate being recertified.
- 14.2.5 It is the responsibility of the candidate to complete their own application forms and documentation to ensure the information provided is correct and up to date. In the event of a false statement being discovered, any certification awarded as a result of an examination or renewal application will be null and void and the certificate must be returned to BINDT. The candidate/PCN certificate holder will accept responsibility for payment of examination fees in the event of non-payment by the sponsor.

14.3 Suspension or withdrawal of certification

- 14.3.1 PCN certification may become invalid, suspended or withdrawn in the event of any of the scenarios stated below:
- (a) In any industrial sector that is not covered by the certificate (unless the holder successfully completes a supplementary examination for the industrial sector).
 - (b) In the event of unethical behaviour on the part of the certificate holder. Decisions shall be at the discretion of the British Institute of NDT after investigation and the review of any relevant supporting evidence (see PCN24/CP27 – PCN Code of Ethics).
 - (c) If examination or certification fees are not paid when due.
 - (d) If the individual becomes physically incapable of performing his/her duties based upon failure of the visual acuity examination taken annually under the responsibility of their employer.
 - (e) If a significant interruption (see definitions) takes place in the method for which the individual is certificated.

- (f) If the individual fails recertification, until such time as the individual meets the requirements for recertification or initial certification.
 - (g) In the case of certification for industrial radiography, if the period since the certificate holder has achieved success in a PCN (or recognised equivalent) radiation safety examination exceeds five years.
 - PCN radiography certification is considered by BINDT to be valid in any country outside of the United Kingdom where the certificate holder has passed an examination on local radiation safety regulations and provides to BINDT evidence of valid radiation safety certification issued by a recognised independent authority in that country.
 - (h) Any other reason deemed by the Certification Body (BINDT/PCN) that is considered to bring the PCN Scheme into disrepute or have any detrimental effect on the integrity, security and/or the reputation of the PCN Scheme.
- 14.3.2 All decisions regarding the withdrawal or suspension of PCN certification are at the discretion of BINDT/PCN.
- 14.3.3 Verification of current PCN certification is available at www.bindt.org/pcn provided the correct PCN number of the individual is entered.

15. Complaints and appeals

- 15.1 PCN certificate holders must recognise that personal integrity and professional competence are the fundamental principles on which their testing activities are founded (see also 'Use and misuse of certificates' – section 19). Accordingly, it is a condition of PCN certification that certificate holders shall undertake to comply with a Code of Ethics, which is published as PCN document reference PCN24/CP27.
- 15.2 An aggrieved party in a dispute, which considers itself to have reasonable grounds for questioning the competency or ethical behaviour of a PCN certificated individual or his/her employer, may petition the British Institute of NDT for withdrawal or cancellation of certification by submitting to PCN a completed form for initiating a formal complaint/appeal, using PCN document PCN24/CP21. Such a petition must be accompanied by all relevant facts and, if it is the view of the British Institute of NDT that an adequate case has been presented, a full investigation of the circumstances under dispute will be initiated.
- 15.3 If the petition is substantiated to the satisfaction of the PCN Management Committee (or a committee to which responsibility has been assigned for such matters), the certification may be cancelled, or renewal or recertification may be refused, for such a period as the Management Committee may decide, unless the holder of certification is successful in a further examination, the content of which will be decided by the Management Committee or its authorised sub-committee at an ordinary meeting.
- 15.4 Appeals against certificate cancellation, failure to certify or failure to renew may be made by the candidate or the employer upon application in writing to the Secretary of the Management Committee.
- 15.5 The Certification Management Committee may delegate the process of dealing with complaints and appeals to a properly constituted sub-committee.

16. Change of employer

- 16.1 Change of employer shall not be cause for recertification.
- 16.2 PCN certificates signed by the employer for authorisation purposes must be returned to the British Institute of NDT for re-issue upon change of employer.

17. Supplementary examinations

- 17.1 On occasion, PCN receives requests from certificate holders who wish to be allowed to attempt a supplementary examination no later than six months prior to the expiry of the certificate that is to be supplemented. It is important that PCN certificate holders understand the reasons for the six-month rule and its implications.
- 17.2 All supplementary examinations must be attempted no later than six months prior to the expiry date of the certificate being supplemented to ensure the results notice is received before the expiry date. **Results notices received after the expiry date will not be accepted.**
- 17.3 A certified Level 1 or Level 2 individual changing industry or product sector and/or adding another sector for the same NDT method shall be required to take sector-specific and practical examination elements for the new product sector.

- 17.4 Candidates for supplementary Level 2 examinations shall be required to draft a written instruction for the new sector.
Note: This is when adding supplementary sectors (ie welds, castings, forgings, etc) to those already held. It is not when adding additional categories within a sector already held (ie additional weld categories 3.7, 3.8, etc).
- 17.5 It is mandatory for additional practical industrial experience to be demonstrated in accordance with the BS EN ISO 9712 requirements listed below at (a) and (b):
- (a) BS EN ISO 9712 at 7.3.3.2 confirms that a certified Level 1, 2 or 3 adding an additional method may be permitted a reduction of required experience of 25% for that additional method.
 - (b) BS EN ISO 9712 at 7.3.3.3 requires a certified Level 1, 2 or 3 individual changing product sectors or adding another product sector or technique for the same NDT method to gain additional experience of at least 25% of the experience required in Table 3 of BS EN ISO 9712; this shall never be less than 15 days in duration.
 - (c) The exception to the above requirements is with regard to adding a supplementary category or categories for manual UT of welds where this is considered an additional category within a method within a technique and NOT an addition of a new product sector or technique. Consequently, BINDT/PCN mandates that any additional training requirements are met and a minimum of 15 days' experience is documented for each additional category sought. Evidence of this experience may be supplied either pre or post examination; however, certification will not be issued until the required experience is proven.
- 17.6 One retest of a partly failed supplementary examination will be allowed within the six-month period prior to the expiry of the certificate being supplemented. Retests taken after the expiry date shall not be accepted by PCN.
- 17.7 Where the retest cannot be completed (for whatever reason) prior to expiry of certification, the candidate will not be allowed a retest of the attempted supplementary examination.
- 17.8 The retest shall not take place sooner than 30 days from the initial supplementary exam unless further training acceptable to BINDT has been satisfactorily completed.
- 17.9 Candidates who fail the retest within the six-month period prior to the expiry date will need to recertify their existing certificate prior to attempting a supplementary examination. The PCN database cannot supplement a non-existent certificate. In this instance, the candidate shall apply for late recertification (PCN24/PSL28 form) and incur the financial penalty.
- 17.10 By completing the PCN24/PSL57A form, the candidate confirms that they understand the consequences of failing the supplementary examination, as detailed above, and is aware that no complaint or appeal in this event will be accepted by PCN.
- 17.11 Applicants for Level 2 supplementary examinations will be required to submit log sheets showing continuity of employment and application of the method in the industry or product sector concerned, direct to the examining AQB.
- 17.12 The pass mark for all supplementary examination parts will be 70%. Refer to the appropriate appendix of this document for specific information.
- 17.13 Any new certification issued as a result of successful supplementary examination will incorporate the previous certification and will be valid for a maximum of five years from the date of completion of the first successful attempt at the supplementary examination.

18. Certification and examination records

- 18.1 The British Institute of NDT will retain records of certification issued as a result of success in any PCN examination for a minimum period of 11 years. An updated database of certificated personnel, which includes (amongst other things) the name, PCN identification number and scope of certification held by each individual, is maintained by the PCN Certification Records Office. Verification of the certification status of individual PCN certificated personnel is freely available at www.bindt.org.
- 18.2 BINDT Authorised Qualifying Bodies will retain examination records of successful and unsuccessful candidates for a period of 11 years from the date of the examination. Audit of specific individual examination records, which are under the jurisdiction of the British Institute of NDT or its nominees, may be made in accordance with PCN documents PCN24/CP14 and PCN24/CP19.

19. Use and misuse of certificates

- 19.1 The issue of a PCN certificate indicates that the holder has demonstrated an acceptable level of competence measured by means of the relevant examination conducted at a BINDT Authorised Qualifying Body in accordance with the prevailing requirements on the date indicated using a particular set of equipment on a specific product. Certificate holders or employers are not permitted to imply any further degree of competence on the basis of the certificate.
- 19.2 PCN certificate holders or their employers must not use or refer to PCN certificates, nor the PCN logo, nor must they knowingly allow them to be used or referred to by a third party, in a manner that may be considered fraudulent or to bring the PCN Scheme into disrepute. The full conditions of use of the PCN logo, or reference to PCN certification, are detailed in a separate document (PCN24/PSL31) available from the British Institute of NDT.
- 19.3 All certificated personnel are required to keep a register of complaints made against them within the scope of the certificate of conformance (see also PCN document PCN24/CP27 – Code of Ethics for PCN certificate holders). Failure to keep such a register, or failure to enter valid complaints in it, will be construed as a misuse of the certificate and appropriate penalties will be applied, see below. The register of complaints must be made available to the British Institute of NDT on request.
- 19.4 The penalty for misuse of PCN certification in all cases is invalidation of the certificate. If the misuse was in the public domain, publication of the transgression may also be undertaken. Any misuse, which appears to be an infringement of the law, will result in the matter being reported to the police.
- 19.5 Certificates are valuable documents and should be kept in a safe place. Any suspicion of forgery or misrepresentation must be reported to the British Institute of NDT. Loss or theft of certificates must be reported to the police and to the British Institute of NDT.
- 19.6 It is required that all PCN certificate holders maintain a log demonstrating continuity in the application of the NDT activity for which they are certificated. Examples of suitable pages for recording details of employment, continuity and surveillance are contained within PCN document PCN24/CP16.
- 19.7 New employers presented with PCN certification should satisfy themselves that the certificate holder has been employed without significant interruption (see definitions) on work for which the certificate was granted. It is strongly recommended that the employer request sight of the certificate holder's logbook.

20. Transition to PCN24 Scheme

- 20.1 This version of the PCN Scheme controlling document PCN24/GEN and the re-vamped PCN24 Scheme is scheduled for advance release to PCN Authorised Qualifying Bodies and BINDT Approved Training Organisations on 1 January 2024. Following the official release, approved bodies will be allowed a six-month transitional period during which BINDT and its auditors will accept compliance with the established scheme documents and/or the PCN24 Scheme documents. This is to allow users to transition their systems to the new PCN24 Scheme requirements.

ANNEX A – SECTORS (NORMATIVE)

A.1 – GENERAL

When creating a sector, the Certification Body may standardise according to the reference lists of sectors in A.2 and A.3. This does not preclude the development of additional sectors to satisfy national needs.

Sector certification may be available at all three levels of competence in all NDT methods or may be limited to particular methods or levels. However arranged, the scope of certification shall be specified on the certificate.

A.2 – PRODUCT SECTORS

These include:

- Metallic materials:
 - (a) Castings (c) (ferrous and non-ferrous materials).
 - (b) Forgings (f) (all types of forgings: ferrous and non-ferrous materials).
 - (c) Welds (w) (all types of welds, including soldering, for ferrous and non-ferrous materials).
 - (d) Tubes and pipes (t) (seamless, welded, ferrous and non-ferrous materials, including flat products for the manufacturing of welded pipes).
 - (e) Wrought products (wp), except forgings (*ie* plates, bar, rods).

For composite materials, the Certification Body shall specify the requirements for examination.

A.3 – INDUSTRIAL SECTORS

Sectors combining a number of product sectors, including all or some products or specified materials (*ie* ferrous and non-ferrous metals or non-metals such as ceramics, plastics and composites):

- (a) Manufacturing (m).
- (b) Pre- and in-service testing, which includes manufacturing (s).
- (c) Railway maintenance (r).
- (d) Aerospace (a).

When creating an industrial sector, the Certification Body shall precisely specify in its published documentation the scope of the new sector concerned in terms of product, object or item.

An individual certified in an industrial sector shall be regarded also as holding certification in each product sector from which the industrial sector is composed.

ANNEX B – MINIMUM NUMBER AND TYPE OF SPECIMENS FOR THE LEVEL 1 AND LEVEL 2 PRACTICAL EXAMINATION ELEMENT (NORMATIVE)

- (a) For all practical examination elements, candidates shall be required to test one or more sector-specific specimen.
- (b) If the candidate is required to test more than one specimen, each specimen shall be different in character, *ie* in product form, material specification, shape, size or discontinuity type.
- (c) The evaluation and interpretation of a dataset shall be considered as equivalent to testing one specimen.
- (d) For single product sector practical examination, candidates shall be required to test a minimum of two specimens from the product sector for which certification is sought.
- (e) For multiple product sector practical examinations, examination candidates shall be required to test a minimum of one specimen from each product sector for which certification is sought.
- (f) For industrial sector-related practical examination elements: candidates shall be required to test at least two specimens, representative of products typically tested in that industrial sector.
- (g) For RT candidates, Level 1 and Level 2 candidates shall radiograph at least two specimens. Level 2 candidates, already certified as Level 1, shall radiograph at least one specimen. In addition to taking radiographs, Level 2 candidates shall interpret a set of at least ten film images or ten digital radiographic images. This set shall be considered as one specimen.
- (h) When the certification sought is limited in application, for example thickness measurement, radiographic interpretation or automated testing, the minimum number of specimens may be reduced by up to 50%, to one per sector.

ANNEX C – STRUCTURED CREDIT SYSTEM FOR RENEWAL OF LEVELS 1, 2 AND 3 AND FOR LEVEL 3 RECERTIFICATION (NORMATIVE)

C.1 – LEVEL 1 RENEWAL

See Table C.1 – you must achieve 100 points minimum with at least 75 points from Part A.

Level 1 Renewal – 100 points required with at least 75 from Part A.

Table C.1

Activity		Max per year	Max per five years
Part A			
Performance of NDT activities	2/day	25	95
Completion of theoretical training	1/day	5	15
Completion of practical training	2/day	10	25
Participation in research activities for NDT	1/week	15	60
Part B			
Participation in a technical seminar/paper	1/day	2	10
Presenting a technical seminar/paper	1/presentation	3	15
Current individual membership of NDT society	1/membership	2	5

C.2 – LEVEL 2 RENEWAL

See Table C.2 – you must achieve 100 points with at least 50 points from Part A.

Level 2 Renewal – 100 points required, with at least 50 from Part A.

Table C.2

Activity		Max per year	Max per five years
Part A			
Performance of NDT activities	2/day	25	95
Completion of theoretical training	1/day	5	15
Completion of practical training	2/day	10	25
Delivery of training in method	1/day	15	75
Participation in research activities for NDT	1/week	15	60
Part B			
Participation in a technical seminar/paper	1/day	2	10
Presenting a technical seminar/paper	1/presentation	3	15
Current individual membership of NDT society	1/membership	2	5
Technical oversight and mentoring	2/mentee	10	30
Participation in technical committees	1/committee	3	15
Technical role within Certification Body	2/activity	10	30

C.3 – LEVEL 3 RENEWAL

See Table C.3 – you must achieve 100 points with at least 50 points from Part A.

Level 3 Renewal – 100 points required, with at least 50 from Part A.

Table C.3.

Activity		Max per year	Max per five years
Part A			
Performance of NDT activities	2/day	25	95
Completion of theoretical training	1/day	5	15
Completion of practical training	2/day	10	25
Delivery of training in method	1/day	15	75
Participation in research activities for NDT	1/week	15	60
Part B			
Participation in a technical seminar/paper	1/day	2	10
Presenting a technical seminar/paper	1/presentation	3	15
Current individual membership of NDT society	1/membership	2	5
Technical oversight and mentoring	2/mentee	10	40
Participation in technical committees	1/committee	4	20
Technical role within Certification Body	2/activity	10	40

C.4 – RECERTIFICATION

Prior to the completion of each second period of validity, the certified individual shall be recertified by the Certification Body for a new period of five years or less, providing the individual meets the criterion for renewal specified and meets the applicable conditions described in the following:

- (a) Level 1 recertification – the practical examination
- (b) Level 2 recertification – the practical examination and a written instruction
- (c) Level 3 recertification – either:
 - The written examination**OR**
 - Meet the requirements of the Structured Credit System. See Table C.4. Level 3 recertification – 100 points required. A minimum of 50 points and a maximum of 70 from Part A and a minimum of 30 points and a maximum of 50 points from Part B.

Table C.4

Activity		Max per year	Max per five years
Part A			
Performance of NDT activities	2/day	25	95
Completion of theoretical training	1/day	5	15
Completion of practical training	2/day	10	25
Delivery of training in method	1/day	15	75
Participation in research activities for NDT	1/week	15	60
Part B			
Participation in a technical seminar/paper	1/day	2	10
Presenting a technical seminar/paper	1/presentation	3	15
Current individual membership of NDT society	1/membership	2	5
Technical oversight and mentoring	2/mentee	10	40
Participation in technical committees	1/committee	4	20
Technical role within Certification Body	2/activity	10	40

C.5 – PERFORMANCE OF NDT ACTIVITIES

C.5.1 In assessing this activity type, the Certification Body should consider the responsibilities of employers as specified in 5.5 and the duties specified in Clause 6 (Levels of certification). The following work activities may be considered as acceptable:

- (a) Knowledge and understanding of the customer's specifications and the inspection standards.
- (b) Verification of operating conditions or setting up of the test equipment, successful performance of NDT, satisfactory reporting.
- (c) Performance as a Level 3 examiner.

C.5.2 In order to assess the activities specified in C.5.1, 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:

- (a) Confirmation of the candidate's work activities by a certified individual or referee.
- (b) Confirmation of the level of activity of the individual in the given method.
- (c) Confirmation of formal documented competency or proficiency test(s) in the given method.
- (d) Dates and protocol numbers of reports.
- (e) Details of any job-specific training received.
- (f) Confirmation of employer's authorisation to operate.
- (g) Summary of activities and outputs.
- (h) Job/position description.
- (i) Annual/regular employer assessments of performance/competence.
- (j) Sample NDT reports.
- (k) Sample procedure(s) developed (Level 3 only).
- (l) Customer feedback.
- (m) Confirmation of adherence to code of ethics from employer.
- (n) Confirmation of compliance with additional national requirements (*ie* 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.

ANNEX D – GRADING PRACTICAL EXAMINATION ELEMENTS (NORMATIVE)

D.1 GRADING/MARKING OF LEVEL 1 AND LEVEL 2 PRACTICAL EXAMINATION ELEMENTS

Guidance for Authorised Qualifying Bodies on the grading of Level 1 and 2 practical elements and the summary examination gradings are detailed in BINDT/PCN document PCN24/CP22 and the supporting forms listed in PCN24/CP22.

D.2 GRADING/MARKING OF LEVEL 2 WRITING EXAMINATION ELEMENTS (WRITTEN INSTRUCTION)

Guidance for Authorised Qualifying Bodies on the grading of the Level 2 written instruction examination elements and the summary examination gradings are detailed in BINDT/PCN document PCN24/CP22 and the supporting forms listed in PCN24/CP22.

D.3 GRADING/MARKING OF LEVEL 3 MAIN METHOD EXAMINATION ELEMENT ITEM F (PROCEDURE WRITING)

Guidance for Authorised Qualifying Bodies on the grading of the Level 3 Part F (procedure writing) examination are detailed in BINDT/PCN document PCN24/CP25 and the supporting forms listed in PCN24/CP25.

ANNEX E – TRAINING REQUIREMENTS FOR TECHNIQUES (INFORMATIVE)

E.1 – GENERAL

This Annex considers the increasing use of NDT techniques developed in the framework of an NDT method. This Annex is also intended to provide guidance for an increasing request for competency in those techniques.

The selection of NDT techniques included in this Annex is not meant to be comprehensive nor exclusive and, therefore, leaves room for future techniques when their use becomes significant for inclusion in the Annex.

Direct access to Level 2 requires the total training days shown in each Table for Levels 1 and 2. Direct access to Level 3 requires the total training days shown in the Tables, where applicable, for Levels 1, 2 and 3.

N/A means not applicable.

E.2 – RECOMMENDED ADDITIONAL TRAINING DAYS FOR TECHNIQUES

E.2.1 General

The training requirements for the techniques shown in Tables E.1 and E.2 are in addition to those for the method shown in Table 2.

Note: The training requirements for the base methods from Table 2 are reproduced in the first line of Table E.1 for convenience.

E.2.2 Validity

Certification in a technique is valid as long as the certificate in the main method is valid.

Table E.1. Ultrasonic testing (UT) techniques: additional training requirements

Technique	Abbreviated term	Training requirements (days)		
		Level 1	Level 2	Level 3
UT (as per Table 2)		8	10	5
Time-of-flight	UT-TOFD	N/A	10	5
Phased array	UT-PA	N/A	10	5
Total focusing method UT	UT-TFM	N/A	10	5

Table E.2. Ultrasonic testing (UT) techniques: additional prerequisites

Technique	Level 1	Level 2	Level 3
UT-TOFD	N/A	UT 2	UT 3
UT-PA	N/A	UT 2	UT 3
UT-TFM	N/A	UT 2	UT 3

Note: The level stated in the Table is the minimum acceptable level of certification. A Level 3 certificate holder satisfies this requirement.

E.3 – RECOMMENDED TOTAL TRAINING DAYS FOR RADIOGRAPHIC TESTING (RT) TECHNIQUES

E.3.1 General

The training requirements for the techniques shown in Tables E.3 and E.4 are the total training days required for certification in the RT technique noted.

E.3.2 Validity

Certification in a technique is valid as long as the certificate in the main method is valid, except for techniques with limited scope.

Table E.3. Radiographic testing (RT) techniques: training requirements

Technique	Technique with limited scope	Abbreviated term	Training requirements (days)		
			Level 1	Level 2	Level 3
Film and digital		RT – FD	8	10	8
Film		RT – F	5	10	5
Digital		RT- D	5	10	5
Computed tomography		RT – CT	4	5	5
Radioscopy		RT – S	4	4	5
	RT film interpretation	RT – FI	N/A	8	N/A
	RT digital image interpretation	RT – DI	N/A	8	N/A
	RT film and digital image interpretation	RT – FDI	N/A	9	N/A

Note: At the present time, training shown in Table 2 for RT is mainly film radiography (RT-F).

When the training syllabuses are in agreement with the recommendations in ISO/TS 25107, several situations are to be considered, RT including then film and digital radiography (RT-FD).

E.3.3 Additional training requirements for film to digital transition

Candidates holding an RT-F certificate and seeking certification in RT-D need to have additional training, as shown in Table E4.

Table E.4. Additional training requirements for RT-F to RT-D or RT-D to RT-F

Method	Technique	Level 1	Level 2	Level 3
RT	Film to digital radiography (RTF – RTD)	3 days	5 days	3 days
RT	Digital to film radiography (RTD – RTF)	3 days	5 days	3 days

21. Change control record

PCN24/GEN – Document issue and review status		
Document issue for review	Changes/amendments	Current document status
Issue 01	<p>Complete review and rewrite following issue of BS EN ISO 9712:2022. PCN Scheme rebrand as PCN24.</p> <p>Replaces and supersedes PCN/GEN issue 19, which is withdrawn as of 1 January 2024.</p>	<p>1 July 2023 – initial (for comment).</p> <p>Implementation: 1 January 2024.</p>
Issue 01	<p>Complete review and rewrite following issue of BS EN ISO 9712:2022. PCN Scheme rebrand as PCN24.</p> <p>Replaces and supersedes PCN/GEN issue 19, which is withdrawn as of 1 January 2024.</p>	<p>1 July 2023 – final (after comment).</p> <p>Implementation: 1 January 2024.</p>
Issue 02	<p>Amendments made following initial introductory period of issue 01 and comments received thereafter.</p> <p>Introduction – Additional PCN appendix documents referenced.</p> <p>References – Reference to PCN24/CP29 added.</p> <p>6.3.4 and 6.3.5 – Clauses rewritten.</p> <p>Table 2 – Note (c) amended to 11 days' maximum reduction. Grammatical change to footnote.</p> <p>7.3.1.4 – Note added regarding interim Level 1 certification while gaining Level 2 experience.</p> <p>7.3.2.1(b) – Amended to better define the requirement.</p> <p>8.6.1.1 – Clause reworded regarding initial certification.</p> <p>10.1 – Split into clauses 10.1 to 10.3 to better define re-examination requirements.</p> <p>11.2 – Reference to the applicable main method appendices added.</p> <p>11.4 and 11.4.3 – 'Recertification' amended to read 'renewal or recertification'.</p> <p>11.4.2 – Specimen requirements for renewal/recertification examinations removed.</p> <p>11.5.4 – Clauses (a)-(f) added.</p> <p>17.1 and 17.2 – Amended to better define the requirement.</p> <p>17.3 to 17.5 – Amended to give further information regarding supplementary examinations.</p> <p>Annex B – Sub clauses (d) to (e) separated to better define the requirement.</p> <p>Table E.1 – Option for UT-PA and UT-TOFD at Level 1 removed – now made N/A. Level 2 additional training hours amended to suit.</p> <p>Table E.2 – Option for UT-PA and UT-TOFD at Level 1 removed – now made N/A.</p>	<p>1 August 2025.</p> <p>Implementation: 1 September 2025.</p>
Issue 03	<p>Section 5.5 – Responsibilities of an ATO added. Other clauses of Section 5 renumbered accordingly.</p> <p>Review and update to add new advanced UT technique – Total focusing method (UT-TFM):</p> <p>Table 1 – Amended to include UT-TFM.</p> <p>Table 4 – Amended to include UT-TFM.</p> <p>Annex E – Table E1 amended to include UT-TFM.</p> <p>Annex E – Table E2 amended to include UT-TFM.</p> <p>Clause 7.2.8 – Wording changed in (a) and note added regarding university degrees.</p>	<p>December 2025.</p>





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