

**Certification Services Division
1 Spencer Parade, Northampton
NN1 5AA, United Kingdom**

Tel: +44(0)1604-259-056.
Fax: +44(0)1604-231-489.
E-mail: pcn@bindt.org



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PCN SPECIFICATION FOR JOB SPECIFIC EXAMINATIONS

This document provides employers, purchasing authorities and regulatory bodies with an authoritative specification on the conduct of Job Specific examinations in accordance with PCN principles.

Although this examination is entirely formatted to comply with the specific needs of individual employers, BINDT Authorised Qualifying Bodies (PCN Test Centres) may be prepared to implement these examinations on behalf of employers. For further information, contact the PCN Scheme Manager or an approved BINDT AQB.

FOREWORD

This specification is part of a comprehensive scheme, compliant with European standards, for the qualification and certification of personnel engaged in NDT and related inspection. PCN is an accredited certification body (UKAS registration number 030) meeting the criteria set out in ISO/IEC 17024 and offering certification complying with EN 473 and ISO 9712, and qualification complying with EN 4179 (see references).

PCN certificates are recognised by many different international bodies including inspection authorities, purchasers and operators of equipment and plant, regulatory bodies and classification societies.

The Scheme, which is governed by an independent Board representative of trade associations, insurance companies, classification societies, inspection organisations, Government departments and other bodies, is managed by a Board of Directors appointed by the British Institute of Non-Destructive Testing.

1. INTRODUCTION

- 1.1 PCN Certification examinations comprise two mandatory parts:
 - General (theory) examination
 - Sector Specific (theory and practical) examination
- 1.2 A third optional examination part may be conducted by the employer or by an approved third party:
 - Job Specific (theory and/or practical) examination
- 1.3 The PCN Scheme is structured in such a way that General Theory, Sector Specific Theory and Sector Specific Practical examinations are conducted independently of the employer at authorised BINDT AQBs.
- 1.4 By incorporation of the Job Specific examination the PCN Scheme offers flexibility for companies who have to meet the specific requirements of individual clients or regulatory authorities.
- 1.5 Employers setting such Job Specific examinations may thus supplement certification awarded as a result of success in centrally administered PCN examinations.



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.



2. REFERENCES

This document incorporates provisions from other publications which are listed hereafter.

PCN/GEN	General Requirements for Certification of Personnel engaged in Non-Destructive Testing.
PCN/AERO	General requirements for certification of NDT personnel working in the aerospace sector
ISO/IEC 17024	General criteria for certification bodies operating certification of personnel.
EN 473	General principles for qualification and certification of NDT personnel.
ISO 9712	Non-destructive testing - Qualification and certification of personnel.
EN 4179	Aerospace series – qualification of NDT personnel

3. DEFINITIONS

The definitions contained in the current edition of PCN/GEN apply within this document. Certain relevant definitions are reproduced herein for ease of use.

Category - The specific application within the NDT method for which the individual is certificated. This may restrict the qualification to inspection using only specified techniques, particular equipment on stated materials structures or geometries such as, for example, ultrasonic testing of butt welds in pipe. Certified categories will be clearly indicated on the PCN record of certification.

Certification - Procedure used to demonstrate the qualification of NDT personnel in a method, level and industrial sector, and leading to the issue of a certificate. Certification does not include operating authorisation.

Employer - The organisation for which a candidate or holder of certification works on a regular basis.

Job-specific examination - an additional examination concerned with the application of an NDT method to a specialised product not normally covered in a PCN examination.

The job specific examination, which is usually 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 an authorised BINDT Authorised Qualifying Body as a service to industry.

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.

NDT Instruction - A written description of the precise steps to be followed in testing to an established standard, code, specification or *NDT procedure*.

NDT Technique - A specific way of utilizing an NDT method (for example, ultrasonic immersion technique).

NDT Procedure - A written description of all essential parameters and precautions to be observed when applying an NDT technique to a specific test, following an established standard, code or specification. An NDT procedure can involve the application of more than one NDT method or technique.

NDT Method - Discipline applying a physical principle in Non-Destructive Testing (for example, Ultrasonic Testing).

Operating Authorisation - A written statement issued by the employer based on the individual's competence as specified by the certificate. In addition to the certification, amongst other factors, the job-specific knowledge, skill and physical ability should be assessed for the specific task.

The PCN record of certification includes a special space for employers to signify operating authorisation.

Practical Examination - An examination of practical skills in which the level 1 or 2 candidate demonstrates familiarity with and the ability to operate the necessary test equipment, to test the prescribed specimens, and to record and to analyse the resulting information to the degree required.

Qualification - Evidence of training, professional knowledge, skill and experience as well as physical fitness to enable NDT personnel to properly perform NDT tasks.

Record of Certification - Document listing all PCN certification issued under the rules specified in this document and its antecedents, indicating that the named individual has demonstrated proficiency in performing NDT within the scope of the certification.

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 (aerospace or in-service testing).

Significant Interruption - A *significant interruption* means an absence from (or a change of) work activity which prevents the holder of PCN certification from practising the duties corresponding to his or her level in the method and sector(s) for which certification was issued, for (a) a continuous period in excess of 365 days or (b) two or more periods for a total time exceeding two fifths of the total period of validity of the certificate.

Specific Examination - An examination, which is concerned with testing techniques, applied in a particular industrial sector, knowledge of the product being tested, and of standards, codes, specifications and acceptance criteria (see also 'job-specific examination').

Test Specimen - A sample used in practical examinations. Samples are representative of products typically tested in the applicable industrial sector and may include more than one area or volume to be tested.

4. JOB SPECIFIC EXAMINATION - QUALIFICATION PROCEDURES

4.1 General

- 4.1.1 Employers should establish whether a Job Specific examination, in addition to the PCN conducted General and Sector Specific examinations, is necessary in order to fulfill contractual requirements (Job Specific examination may not be required in all cases.)
- 4.1.2 If a Job Specific examination is required, employers of certificated personnel should ascertain which industry/product sectors, NDT methods, techniques, categories, and levels of competence are affected.
- 4.1.3 Employers should ensure that the personnel to be examined hold a current valid PCN certificate for the appropriate sector, method, categories and level.
- 4.1.4 Job Specific examinations may be prepared and supervised by a PCN level 3 or level 2 (as appropriate) certificated individual employed by the specific organisation needing the extra qualification, or by a third party audited and approved by the employer.
- 4.1.5 Job Specific examinations may consist of practical tests on samples representative of the type of test objects to be tested in practice. A written examination may also be specified if this is desired or found to be necessary to satisfy contractual requirements.
- 4.1.6 A written procedure covering the conduct of Job Specific Examination/Qualification should be considered. This may include the method of examination (descriptive or multiple choice written questions), the time allowed and number of questions for the theoretical examination and the number of tests for the practical examination. The character of test specimens may be described for each level, method and specific inspection.

4.2 Practical Examination

- 4.2.1 This may involve each candidate attempting a supervised practical test on one or more representative specimens. The job-specific examination specimens should be kept in a secure storage area, which is not accessible to potential candidates for examination, and should not be used for training purposes.

- 4.2.2 Examination specimens should be prepared in the following manner:
- 4.2.2.1 A number (to be specified by the employer) of specimens representative of the type tested in the on-the-job situation should be tested and reported on by a level 2 certificated person (preferably with more than 3 years relevant NDT experience) using the appropriate NDT method and technique.
 - 4.2.2.2 The report produced for each examination specimen should include the optimum testing technique, a description (with drawings if necessary), the character, size and location of every reportable flaw (with acceptance tolerances), and the grading procedure for at least ten check points. Reports should be kept in secure confidential conditions and accessed only by the examiner or other such authorised person.
 - 4.2.2.3 Examination specimens should be given a unique reference number (which should not, wherever possible, be visible during the examination). Job Specific examination specimen reports should be retained for seven years, or any other such period required by the customer, beyond their last usage and made available to third party auditors.
- 4.2.3 The candidate's practical examination records will include reference to the appropriate valid PCN certification (e.g., certificate and issue numbers; sector, method and level; date of expiry) held as a pre-requisite to Job Specific examination, the examiner's name and certificate number, the specimens tested and the grade achieved. Records should be retained under secure conditions for not less than seven years.
- 4.3 Written Examination
- 4.3.1 A Job Specific written examination may be required and if this is the case, the examination should cover questions specific to the candidate's work (not already covered by PCN administered General and Sector Specific written examinations). Such questions may include reference to special equipment, unique operating procedures or test techniques and specific codes and standards used by the employer.
 - 4.3.2 The written paper and its assessment are to be retained for seven years, or any other such period required by the customer, in the candidate's qualification file and made available for third party audit.
 - 4.3.3 Again, the candidate's records should include reference to the appropriate valid PCN certification (e.g., certificate and issue numbers, date of issue and date of expiry) held as a pre-requisite to Job Specific examination, and should be retained under secure conditions for not less than seven years.
- 4.4 Grading of Examinations
- 4.4.1 The pass marks for both practical and (if necessary) written examinations should be at least 80% in order to give a high degree of confidence. Failure in either of the practical or written parts should constitute overall failure and result in the candidate being required to attempt a retest of failed parts using different examination questions/specimens.
- 4.5 Job Specific Qualification and Authorisation
- 4.5.1 The employer may issue his own document (an example is suggested at Annex A) to individual successful candidates indicating the examination passed, or he may hold a statement on file for appropriate third party audit.
 - 4.5.2 Such documentation is not transferable should the candidate change his employer and, as a maximum, should only be valid for the duration of the appropriate PCN certificate. The qualification expiry date must be clearly stated on the document.
 - 4.5.3 The period of validity of the job specific qualification, which should not exceed five years, must be clearly stated in the Job Specific Examination procedural document. Re-qualification may be required at shorter intervals to satisfy contractual requirements or if a Significant Interruption occurs in the employment of the qualified person.

ANNEX A TO CP13

JOB SPECIFIC QUALIFICATION

This Annex provides for production of a Job Specific Certificate. Additional information may be added at the discretion of the employer.

Job Specific Qualification Procedure Number: _____

PART 1 – COMPANY DETAILS

This Job Specific authorisation/qualification is valid only whilst the holder is employed by:

Name: _____

Address: _____

Post code: _____ Telephone: _____

PART 2 - EMPLOYEE'S DETAILS

Employee's name: _____

Department: _____

Job Description: _____

PART 3 - PCN CERTIFICATION DETAILS

PCN number: _____ (obtainable from PCN records office)

Related PCN Certificate number: _____ Issue: _____

Industry Sector: _____ NDT Method: _____

Level: _____ Categories: _____ Expiry date: _____

PART 4 - JOB SPECIFIC QUALIFICATION/AUTHORISATION

The employee named in Part 2 is authorised to test:

Product(s): _____

Using _____ equipment and

NDT procedure/technique reference: _____

Authorising signature: _____ Date: _____

Name: _____ Position: _____

Examiner: _____ Status of Examiner: _____

Date of examination: _____ Expiry date: _____