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PCN/GEN APPENDIX E3 ISSUE 6 Rev B

Further information concerning the content of PCN documents is available from the PCN Scheme Manager at the above address.

CERTIFICATION OF PERSONNEL IN RADIATION SAFETY AND PROTECTION

ASSOCIATED DOCUMENTS:

Appendix Z1 to PCN/GEN (examination syllabus compendium)

Appendix Z2 to PCN/GEN (specimen examination questions compendium)

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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.



1. SCOPE

1.1 This document prescribes procedures by which personnel may be assessed and certificated for competence in Radiation Safety and/or Radiation Protection. Requirements contained in this document are supplementary to those contained in PCN General Requirements for PCN Certification of NDT Personnel. There are specific requirements detailed within relating to training and experience in terms of eligibility for certification.

1.2 The assessments detailed within are designed to test the candidate's underpinning knowledge of the subject and an understanding of the operations he or she performs.

1.3 Candidates for PCN Industrial Radiography certification who hold existing valid PCN certification in Radiation Safety or Radiation Protection will be exempt any further safety examinations when seeking PCN certification of competence for Industrial Radiography.

2. INTRODUCTION

The PCN Scheme recognises two levels of competence in radiation safety:

2.1 **Basic Radiation Safety (BRS)** certification should be held by any person who is practising industrial radiography and has been adequately trained in the hazards associated with ionising radiations, the precautions to be taken when employing ionising radiation, and the methods of protection. He or she will be aware of the content of and importance of complying with any special requirements for permanent facility or site operations, as well as possible accident or emergency situations which can arise, and the actions to be taken in the event of such occurrences.

2.2 **Radiation Protection Supervisor (RPS)** level is an optional level of certification for holders of PCN level 1, level 2 and level 3 certification of competence for industrial radiography. In addition, it is made available for those appointed by an employer in accordance with regulation 17(4) of the United Kingdom Ionising Radiation Regulations (1999) to supervise work with radiation. A candidate for this PCN certification will have been adequately trained in the requirements for Radiation Protection Supervisors and, in addition, will be assessed for knowledge and understanding of the requirements to assess doses, carry out hazard assessments, implement contingency plans and emergency procedures, and arrange for the provision of dosimeters and the keeping of dose records.

3. ELIGIBILITY FOR ASSESSMENT AND CERTIFICATION

3.1 All candidates must have successfully completed a PCN approved scheme of training and accumulated experience as defined below:

3.2.1 **Basic Radiation Safety (BRS)**. Candidates shall have successfully completed a PCN approved course comprising of 16 hours formal training to the appropriate part of the syllabus outlined in the current edition of PCN/GEN Appendix Z1.

3.2.2 **Radiation Protection to Supervisor Level (RPS)**. Candidates for this examination must:

- i) Hold a current PCN BRS certificate or an alternative acceptable to BINDT.
- ii) Have successfully completed a PCN approved course comprising of 24 hours of formal training to RPS level as outlined in the current edition of PCN/GEN Appendix Z1.
- iii) Provide evidence of nine months relevant experience as a holder of a PCN Basic Radiation Safety certificate or an alternative recognised by BINDT.

NOTE: The responsibility for appointment of a Radiation Protection Supervisor rests with the employer, whose attention is drawn to regulation 13 of the IRR 99 regarding the duty to consult one or more Radiation Protection Advisers.

4. ASSESSMENT OF CANDIDATES

4.1 Due to the variation in the industrial application of radiography, it is impossible to differentiate between the requirements of a site radiographer and an operator concerned with only one specific task in an exposure bay with mechanical/electronic safety controls. Therefore the safety aspects must apply to all personnel and basic radiation safety and radiation protection supervisor assessments include competence for laboratory, site and workshop conditions.

4.2 The examination content is described in PCN General Requirements. This Appendix amplifies the provisions of that document only where necessary.

4.2.1 Basic Radiation Safety (Applications for certification on form PSL/57 are to be submitted directly to a PCN Authorised Qualifying Body.)

- Thirty multiple choice questions. Time allowed: 60 minutes.

4.2.2 Radiation Protection to Supervisor level (Applications for certification on form PSL/57 are to be submitted directly to a PCN Authorised Qualifying Body.)

- Twenty multiple choice questions at RPS standard (not BRS).
- One mandatory calculation question. Passmark 100%.
- Four further questions requiring narrative answers.

Total time allowed: 2½ hours. Overall passmark 70%. Failure in the mandatory calculation or failing to achieve the overall required passing grade of 70% will result in the candidate being considered an initial candidate for certification at RPS level.

5. CERTIFICATION AVAILABLE

5.1 Basic Radiation Safety

5.2 Radiation Protection to Supervisor level.

6. PROCEDURE FOR RECERTIFICATION

6.1 There is no recertification for radiation safety or radiation protection to supervisor level, without a further full assessment.

6.2 Personnel whose PCN radiation safety or radiation protection to supervisor level certification expires at the end of the maximum five year period of validity shall undergo a recertification process comprised of:

6.2.1 Basic Radiation Safety:

A written examination comprising thirty multi-choice questions. Time allowed: 45 minutes. Applications for recertification on form PSL/57 are to be submitted directly to a PCN Authorised Qualifying Body.

6.2.2 Radiation Protection to Supervisor level:

A written examination comprising of twenty multiple choice questions, four narrative answer questions and one mandatory calculation. Time allowed: 2½ hours. Pass mark 70%. Applications for recertification on form PSL/57 are to be submitted directly to a PCN Authorised Qualifying Body.

6.3 Where there has been a significant change in radiation safety regulations or legislation since issue of the expiring PCN certificate, candidates will be required to demonstrate they have undertaken additional and relevant training covering the new legislation or regulations prior to applying for recertification.

7. COMPLAINTS AND APPEALS

7.1 An aggrieved party in a dispute which considers itself to have reasonable grounds for questioning the competency of a PCN certificated individual may petition for withdrawal or cancellation of certification. Such a petition must be accompanied by all relevant facts and, if it is established that an adequate case has been presented, a full investigation of the circumstances under dispute will be initiated.

7.2 If the petition is substantiated to the satisfaction of the PCN Certification Management Committee (or a committee to which the CMC has assigned responsibility for such matters), the certification may be cancelled, or renewal or recertification may be refused, for such period as the CMC may decide, unless the holder of certification is successful in a further examination or assessment, the content of which will be decided by the CMC at an ordinary meeting.

7.3 Appeals against certificate cancellation, failure to certify or recertify may be made in accordance with the guidance in document reference CP21 by the candidate or certificate holder upon application in writing to the PCN Scheme Manager.

7.4 The CMC may delegate the process of dealing with complaints and appeals to a properly constituted sub-committee.

8. REFERENCE LITERATURE

Textual references are essential reading. Recommended reading references given below but not mentioned in the syllabus are recommended reading.

Essential Reading

Statutory Instrument No. 3232. The Ionising Radiation Regulations, 1999 - HMSO.
ISBN 0 11 085614 7

Approved Code of Practice and Guidance - HSE Books, 2000 (L121). ISBN 0 77176 17467

Radiation Safety for Site Radiography, ECIA, London.

Statutory Instrument 1998 No. 543 : Health and Safety - The Control of Lead at Work Regulation 2002

Recommended Reading

Any relevant British, European or international standards

IRID: Ionising Radiation Incident Database. First review of cases reported and operation of the database - NRPB. ISBN 0 85951 436 6

NRPB Website: www.hpa.org.uk (NRPB joined hpa on 01 April 2005)