Non-Destructive Testing Apprenticeships

NDT Engineer Assessment Plan
(non-integrated BSc Non-Destructive Testing or BEng Non-Destructive Testing)
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Overview of the Independent Assessment Organisation’s Activities

Independent Assessment Organisation’s Decision

The independent assessment organisation will have had no involvement in the development of the apprentice. Based on the project presentation and the professional discussion interview, the independent assessment organisation will make a decision as to whether the apprentice has achieved the required levels of knowledge, skills and behaviour and any other requirements specified in the standard and, if so, whether to award a ‘Fail’, a ‘Pass’ or a ‘Distinction’.

Professional Discussion Interview

The end-point assessment will be conducted by the independent assessment organisation and will include a professional discussion interview. The interview panel will include two Engineering Council registrants knowledgeable in NDT who are trained as interviewers. The interview will cover the knowledge, skills and behaviours specified in the standard, will address any shortfalls in the project presentation and portfolio of evidence and will take into account the Engineering Council’s UK-SPEC requirements for Incorporated Engineer (IEng) registration.

Project – Presentation of NDT Project

The project presentation will be delivered by the apprentice to the independent assessment organisation. The presentation will establish that the project specified by the employer, which will have been designed to encompass as many of the knowledge and skills requirements of the apprenticeship standard as possible, has been completed and the requisite knowledge and skills have been achieved. The assessors will also analyse and discuss the project final report.

Portfolio of Evidence

The independent assessment organisation will review the portfolio of evidence provided by the apprentice and make its own assessment against a formal checklist, which will then be tested during the professional discussion interview. At this stage, the independent assessment organisation may request additional information and/or evidence. The portfolio of evidence will include certificates of competence, letters of approval, training attendance certificates, a log book of on-the-job training (experience), employer reports and the IEng competency matching form. If the independent assessment organisation is satisfied with the overall evidence, it will arrange the project presentation and the professional discussion interview that will test the portfolio of evidence.

Gateway to the End-Point Assessment

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SECTION A Overview of the Apprenticeship

This apprenticeship includes a non-integrated degree entitled ‘BSc Non-Destructive Testing’ or ‘BEng Non-Destructive Testing’.

At the beginning of the apprenticeship, it is recommended that the employer and the apprentice develop a schedule (quality plan), in the form of a Gantt chart, to demonstrate how the desired outcomes will be achieved throughout the apprenticeship.

In order for the apprenticeship to be completed in accordance with the approved apprenticeship standard and for the apprentice to be successful in achieving a minimum of a ‘Pass’, the apprentice, the employer, the participating university and the training providers need to follow a structured process, as suggested below.

A1 Recommended On-Programme Assessment

Different universities may have different arrangements for recognising previous studies as contributing towards the apprenticeship and, as a consequence, affecting the entry level. It is therefore important that, on application, the university, the employer, the apprentice and the training provider agree on the appropriate entry level. Whatever the outcome, at the end-point assessment the apprentice will be tested on all aspects of the apprenticeship, even though some of the knowledge and skills may have been obtained prior to the start of the apprenticeship.

The requirements are to gain the knowledge, skills and behaviours specified in the standard; in particular, to obtain the appropriate knowledge and skills to pass examinations for the degrees and any other programme required by the participating university or employer. The employer will undertake quarterly reviews with the apprentice to match progress against the requirements of the standard, assessment plan and other documentation. At the end of the apprenticeship, the apprentice/employer will collate the portfolio of evidence and the project report.

A summary of the knowledge, skills and behaviours that will be assessed is listed below.

A1.1 Knowledge

The apprentice will undertake both on-the-job and formal training. The formal training will be in the form of both distance learning and in a classroom environment. The apprentice will have gained knowledge in technical modules, or equivalent, the choice of which will be determined by the employer’s industry sector. The acquired knowledge will be tested at the end-point assessment.

A1.2 Occupational Skills

The apprentice will be able to use their knowledge in order to develop skills and to demonstrate their proficiency by passing the appropriate NDT and degree assessments and examinations, resulting in the award of a degree certificate, NDT certificates, other certificates and letters of approval. The acquired skills will be tested at the end-point assessment.

A1.3 Project

The apprentice will be given a project to undertake and present, which will demonstrate some of the knowledge and skills he/she has gained during the apprenticeship.
A1.4 Behaviours

Exhibiting good behaviour is essential for the NDT Engineer to work responsibly in the workplace and to set an example to others. In order to assist the end-point assessment, the employer will carry out quarterly appraisals of the behaviours and prepare reports for the independent assessment organisation’s consideration. The acquired behaviours will be tested at the end-point assessment in the professional discussion.

A1.5 Experience (On-the-Job Training)

It is important to understand what is meant by experience in terms of acquiring NDT certification. Experience is mandatory and is defined in the national and international standards as ‘supervised practice’; in reality, it is on-the-job training. Depending on the entry level, the end-point assessment will review the extent of experience gained for any NDT methods during the apprenticeship.

A2 Gateway Requirements

In order to progress to the end-point assessment, the apprentice must have:

- Submitted the portfolio of evidence
- Submitted the project report
- Successfully achieved an NDT BSc or NDT BEng degree
- Successfully achieved Level 2 English and Maths.

As part of the gateway requirements, the portfolio of evidence will be checked to ensure that the training and qualification/certification undertaken during the apprenticeship meets the requirements for knowledge, skills and behaviours identified in the apprenticeship standard. An apprentice’s template for the creation of the portfolio of evidence is available on the professional body’s website (www.bindt.org). The portfolio of evidence will be tested during the professional discussion.

A3 Independent Assessment Organisation’s End-Point Assessment

The independent assessment organisation will have had no involvement in the development of the apprentice.

The end-point assessment will be carried out by the independent assessment organisation. The end-point assessment will include:

A3.1 The project presentation, which will be a presentation by the apprentice on the project that will help to establish the elements of the apprenticeship standard that have been completed and which requisite knowledge and skills have been achieved. The project will take place during the on-programme period, will last for circa 12 months and will be tested by the project presentation.

An example of a project is as follows:

**Project Proposal**
This is a start-to-finish project that requires the apprentice to carry out some research. Typically, this will be a problem that has been identified in the workplace and requires an NDT solution. It might be the introduction of a new NDT technique (that is, new to this problem) or the comparison...
of two or more different techniques to see which one is better in terms of accuracy, reliability, cost or time.

**On successful completion of the project, the apprentice should be able to demonstrate that they can:**

a) Complete a self-managed project within a timescale to an agreed professional standard.
b) Critically analyse a problem from the fields of non-destructive testing and condition monitoring.
c) Design and develop a solution to a problem from the fields of non-destructive testing and condition monitoring.
d) Critically assess and take into account the needs of any end-users or clients.
e) Select and critically evaluate reading material or designs that are relevant to the project.
f) Collect and critically evaluate data using various non-destructive testing techniques and determine its suitability for interpretation.
g) Critically evaluate available technical alternatives and innovative solutions in the project relevant to the requirements and constraints of quality standards.
h) Work within international standards, written specifications and inspection procedures.
i) Clearly document the project activities and the outcomes.
j) Develop awareness and skills in modern computing technologies and inspection techniques.
k) Evaluate data, present results and write reports.
l) Develop design and analysis skills.
m) Organise own learning, making full use of appropriate sources of information.
n) Develop and practise written and oral presentation skills.
o) Seek and make use of feedback from the project supervisor.

**The project will be assessed during the project presentation at the end-point assessment and will concentrate on:**

- Preparation
- Planning
- Project tasks and continuous review
- Project completion
- Project content
- Project presentation

A3.2 **The professional discussion interview** with the apprentice, which will ensure that the apprentice has achieved those aspects of the apprenticeship standard that were not covered by the project presentation. This could include non-project technical requirements, behaviours, health & safety and Engineering Council UK-SPEC Incorporated Engineer (IEng) registration requirements, such as engineering knowledge, personal responsibility, communication skills and personal commitment. The interview will also include testing the portfolio of evidence.

The interview panel will comprise two assessors who have Engineering Council registration at IEng level and above, who have been trained as interviewers and who are knowledgeable in NDT and the apprenticeship process.
After the interview, the independent assessment organisation will make a decision as to whether the apprentice has successfully completed the apprenticeship (and is therefore IEng ready) and, if so, whether to award a ‘Pass’ or a ‘Distinction’.

**SECTION B  End-Point Assessment**

**B1  Assessment (‘What’)**

The end-point assessment will consider the knowledge, skills and behaviours that have been achieved during the apprenticeship. The assessors will carry out a gap analysis of the outcomes against the requirements of the standard and include appropriate questions in the interview. Interview questions should be based on those tabulated in Appendix 2. The end-point assessment will be carried out (face to face) at the assessment organisation’s headquarters or at any location that is convenient to the apprentice and the end-point assessors.

**B2  Assessment (‘How’)**

The end-point assessment will be carried out by the independent assessment organisation and will include a presentation by the apprentice that will test the project carried out during the apprenticeship. There will also be a professional discussion with the apprentice, which will include testing the portfolio of evidence.

Prior to the end-point assessment, the independent assessment organisation will carry out a portfolio assessment of all the gathered evidence, which will include reports from the employer, training provider and apprentice and make its own assessment against a formal checklist. The portfolio of evidence will be analysed by the assessors prior to the assessment day (4 hours) but will test the outcomes during the professional discussion.

The apprentice will provide a presentation on the technical project. This will be followed by a question and answer session, which will allow the interviewers to gain a better understanding of the technical knowledge and skills gained within the apprenticeship. Following the project presentation (30 minutes), the apprentice will be interviewed on the project presentation (2 hours).

The independent assessment organisation will carry out a professional discussion interview, which will include technical achievements, behaviours and NDT knowledge and skills (2 hours).

If the independent assessment organisation is not satisfied with the overall performance of the apprentice at the end-point assessment, it will fail the apprentice and allow more time for the apprentice to reach the required standard by undertaking resits. The additional time allowed will vary depending on what shortfalls need to be addressed but, in any case, six months will be the maximum time allowed. The apprentice will be reassessed at the end of the specified time period.

The interview panel will include two Engineering Council registrants from the independent assessment organisation (IEng level or above). The interview questions will also cover the Engineering Council’s UK-SPEC requirements for Incorporated Engineer (IEng) registration. The same two interviewers will review the portfolio of evidence as well as assessing both the project presentation and the professional discussion.
To ensure the quality and consistency of interviewing between Independent Assessment Organisations and Engineering Council registration requirements, a template of question groups/types is included as Appendix 2 ‘Professional Review for IEng’.

**B3 Assessment (‘Who’)***

Because non-destructive testing is considered to be a highly-specialised engineering profession and is inextricably linked to international standards, UKAS accreditation, Engineering Council registration and certification, it is considered that the independent assessment organisation assessors should have extensive knowledge of NDT.

The independent assessment organisation will constitute an assessment panel, which will include two Engineering Council registrants at Incorporated Engineer (IEng) or above, who are trained professional review interviewers. The independent assessment organisation assessment panel will not include anyone involved in an active apprenticeship from the same company or one of its subsidiaries or from the employing organisation or training providers.

One of the two assessors/interviewers will be identified as the lead assessor. In the event that the two assessors do not agree on the outcome of the assessment, the lead assessor will have the final say.

The apprentice’s skills, knowledge and behaviours will be assessed at the end-point assessment by the independent assessment organisation. The independent assessment organisation will take cognisance of the employer’s assessment of behaviours and human factors.

**SECTION C Grading**

The apprentice will be scored against the project presentation and the professional discussion.

The table below shows the minimum scores required to achieve each of the two levels of pass.

<table>
<thead>
<tr>
<th>Apprenticeship component</th>
<th>Distinction Minimum required</th>
<th>Pass Minimum required</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project presentation will be assessed on:</td>
<td>80%</td>
<td>60%</td>
</tr>
<tr>
<td>• Preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Project tasks and continuous review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Project completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Project content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The project presentation will be followed by a question and answer session on the project presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The professional discussion, which will include technical achievements not covered by the project, behaviours and NDT knowledge and skills, together with Engineering Council’s UK-SPEC registration requirements</td>
<td>80%</td>
<td>60%</td>
</tr>
</tbody>
</table>
**Final Grading** In order to gain a pass, the apprentice must have achieved 60% for the project presentation and 60% for the professional discussion, which includes the NDT knowledge and skills, additional technical achievements and the behaviours. In order to gain a distinction, the apprentice must have achieved 80% for the project presentation and 80% for the professional discussion, which includes the NDT knowledge and skills, additional technical achievements and the behaviours.
### Grading Descriptors

<table>
<thead>
<tr>
<th>Professional Discussion</th>
<th>Distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pass</strong></td>
<td></td>
</tr>
<tr>
<td>Scores from 60% to 79%</td>
<td></td>
</tr>
<tr>
<td>Provides evidence to support the knowledge, skills and behaviours identified in the apprenticeship standard and tabulated in Note 1 below.</td>
<td>Scores 80% or above</td>
</tr>
<tr>
<td>With particular emphasis on:</td>
<td>In addition to what is required for a pass, provides evidence to support the knowledge, skills and behaviours identified in the apprenticeship standard and tabulated in Note 1 below.</td>
</tr>
<tr>
<td>- Applicable safe systems of work and the wider implications of risk</td>
<td>With particular emphasis on:</td>
</tr>
<tr>
<td>- Management</td>
<td>- Accurately and confidently describes the range of impacts of their actions and justifies their course of action</td>
</tr>
<tr>
<td>- Evidence of continuing professional development (CPD), including action plans and continuous development.</td>
<td>- Establishes their leadership skills and/or reputation in their specialist area across their organisation</td>
</tr>
<tr>
<td></td>
<td>- Evidence of continuing professional development (CPD), including action plans and continuous development.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Presentation</th>
<th>Distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pass</strong></td>
<td></td>
</tr>
<tr>
<td>Has provided evidence against the required knowledge, skills and behaviours. Particular emphasis should be placed on:</td>
<td>In addition to what is required for a pass:</td>
</tr>
<tr>
<td>- Demonstrates application of standards, regulations, policies and legislation</td>
<td>- Critically evaluates the impact on the business of their recommendations</td>
</tr>
<tr>
<td>- Develops a robust business case that includes engineering, business and commercial skills</td>
<td>- Critically analyses and presents recommendations in a robust business plan that includes the range of options considered and reasons for inclusion or rejection</td>
</tr>
<tr>
<td>Uses a range of tools and techniques to present their ideas and recommendations</td>
<td>Provides evidence of the impact of the alternative solutions on business and the wider regulatory environment</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Effectively communicates to and convinces their audience</td>
<td>Assimilates and synthesises information to present it effectively to their audience</td>
</tr>
<tr>
<td>Articulates how the project recommendations secure future business performance by identifying risks, threats and technical opportunities for commercial advantage</td>
<td></td>
</tr>
<tr>
<td>Presentation is well structured and presented, summarises all major points of the final project</td>
<td></td>
</tr>
<tr>
<td>Answers all questions competently and demonstrates clear understanding of the subject.</td>
<td></td>
</tr>
</tbody>
</table>
Note 1. The purpose of the professional discussion is to determine what technical achievements have been acquired. The professional discussion will test the NDT knowledge and skills, together with the behaviours. As part of the professional discussion, the apprentice will undergo a professional review interview, using questions derived from the categories illustrated in Appendix 2; this will tease out many of the answers required from the knowledge and skills listed in the standard. The professional review interview is ring-fenced within the professional discussion and is focused on IEng registration.

The assessment will include:

Knowledge

During the professional discussion, the apprentice will demonstrate an understanding of:
- introduction, terminology and history of NDT;
- physical principles of the methods and associated knowledge;
- quality aspects and developments;
- electronic principles;
- material properties;
- mathematics and English;
- personal development;
- quality management of NDT;
- quality tools and techniques in NDT;
- product technology;
- commercial awareness and the economics of their industry sectors,
- business improvement processes and project and business management techniques relevant to the engineering industry;
- advanced inspection methods and techniques;
- the interaction between NDT and other engineering functions,
- the consequences of failure and the contribution of NDT to asset management and life extension;
- root cause analysis and learning from experience (LFE) processes;
- and the advantages of collaboration with other industry sectors in order to apply best practice.

Skills

The apprentice will demonstrate that they have advanced skills in NDT methods substantiating their lead competency role within their organisation and industry sector (this would be applicable to employers operating in any industry sector, such as nuclear or aerospace) through:
- critically applying knowledge of the concepts, principles and theories of developing engineering technology relevant to the interdisciplinary fields of NDT;
- working competently in a technical engineering environment, understanding and promoting personal responsibility for health, safety, radiation protection, environmental protection, quality, security, safeguards and principles of risk management;
- analysing engineering problems, selecting and using mathematical and theoretical data to provide suitable NDT solutions with consideration of the entire inspection cycle;
- and applying their engineering knowledge to the development, operation, maintenance and progression of technologies used for NDT.

Behaviours

The apprentice needs to demonstrate an understanding of behaviours, such as:
- communicating effectively and appropriately using a full range of skills, such as technical speaking to a scientific/engineering audience, active listening, professional writing and technical presentation;
- demonstrate reliability, integrity and respect for confidentiality on work and personal matters in accordance with professional codes of conduct and ethical principles;
- understanding the impact of work on others, especially where related to diversity and equality;
- taking responsibility for personal development, demonstrating a commitment to learning and self-improvement and being open to feedback;
- demonstrating a strong commitment to personal safety behaviours and understanding of the consequences as set out in the industry sector requirements;
- demonstrating compliance by following rules, procedures and principles to ensure work completed is fit for purpose, paying attention to detail and carrying out verification checks throughout work activities; and an
understanding of human factors, including the impact of human factors, especially with respect to NDT.

SECTION D  Quality Assurance

D1  Internal Quality Assurance

During and at the end of the apprenticeship, the independent assessment organisation will carry out internal quality audits to ensure accuracy and consistency of implementation and delivery:

- The internal audit will check that the assessors have relevant Engineering Council accreditation
- The internal audit will carry out 10% of audit checks on each assessor throughout the year
- Standardisation is achieved by annual training
- Each assessor will maintain CPD records covering the need to keep up-to-date with modern practice.

**Internal quality audit:** a systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve set objectives.

When carrying out the internal quality audit, the auditors will pay particular attention to the requirements of the apprenticeship standard, assessment plan, the latest IfA guidance and advice from the professional body.

Annual audits will be carried out by a member or members of the assessment organisation, who have received training in the conduct of assessments and/or audits and who are independent of the department carrying out the independent assessment.

Any findings from the internal quality audits will be made available to the external quality assurance organisation (EQA).

D2  External Quality Assurance

We have considered external quality assurance and have concluded that it will be carried out by the Institute for Apprenticeships (IFA).

SECTION E  Ensuring Independence and Impartiality of Assessment

Independence and impartiality are achieved through the final end-point assessment being undertaken by an independent assessment organisation listed on the ‘Register of Apprentice Assessment Organisations’. The independent assessor will make a holistic assessment of the apprentice’s work, including the grade to be awarded, on the basis of evidence supplied through the ‘portfolio of evidence’, project presentation and the interview. The portfolio of evidence will include the log book, IEng competency matching form and the employer’s reports obtained during the apprenticeship. Although the independent assessment organisation is responsible for ensuring the portfolio of evidence is complete, to promote consistency between different assessment organisations a portfolio checklist is provided in Appendix 3. The interview panel will comprise two assessors who hold
Engineering Council registration at IEng or above, who have been trained as interviewers and who are knowledgeable in NDT and the apprenticeship process.

SECTION F  Affordability

The costs and practicality of assessment have been key considerations in the development of this apprenticeship, not least because of the number of smaller businesses who would find it extremely difficult, if not impossible, to develop and run an apprenticeship scheme without assistance from government, an independent assessment organisation and the professional body.

The requirements of the standard and the structure of the end-point assessment, together with the competence and experience of trained engineering registration interviewers, has enabled the cost of the end-point assessment to be kept to a minimum.

The cost of the end-point assessment as a percentage of the training costs is approximately 15%.

SECTION G  Manageability/Feasibility

The use of the approved standard, approved assessment plan, apprentice’s guidance document, on-programme competency development, employer’s units of competence and the university’s literature and website ensures that assessments will be conducted consistently, whilst maintaining incentives for those organisations to be innovative and cost-effective. It will also ensure that there is the capacity to meet immediate and future demands. It is also anticipated that the turnaround of assessments will not unduly delay the award of the apprenticeship to successful candidates.

It is anticipated that there will be 50 starts during the first academic year of this apprenticeship.

SECTION H  Professional Body Recognition

For this apprenticeship, the level of professional registration will be Incorporated Engineer (IEng), as prescribed and awarded by the Engineering Council.
SECTION I References

Ref: 1 BS EN ISO 9712 – Non-destructive testing – Qualification and certification of NDT personnel

Ref: 2 BS EN 4179 – Aerospace series – Qualification and approval of personnel for non-destructive testing

Ref: 3 UK-SPEC – The UK Standard for Professional Engineering Competence

Ref: 4 Non-Destructive Testing Apprenticeships – NDT Engineer Standard

Ref: 5 Non-Destructive Testing Apprenticeships – NDT Engineer Assessment Plan

Ref: 6 Apprentice’s Guidance Document (located on the British Institute of NDT website at www.bindt.org)

Ref: 7 On-Programme Competency Development (located on the British Institute of NDT website at www.bindt.org)

Ref: 8 Employer’s Units of Competence (located on the British Institute of NDT website at www.bindt.org)

SECTION J Glossary

Apart from the acronyms mentioned in this document, other acronyms have been added to provide the reader with useful information they may come across when reading other NDT documentation.

ATO – Approved training organisation

AQB – Authorised qualifying body

BINDT – The British Institute of Non-Destructive Testing

CAD – Computer-aided design

CCNSG – Client/Contractor National Safety Group

CEng – Engineering Council, Chartered Engineer registration grade

CM – Condition monitoring

CPD – Continuing professional development

CSD – BINDT Certification Services Division

ECITB – Engineering Construction Industry Training Board

Gantt – An illustration of a project schedule that was devised by Henry Gantt in 1910
**IEng** – Engineering Council, Incorporated Engineer registration grade

**IEng ready** – This describes the situation whereby the apprentice has fulfilled all of the requirements for IEng registration, including passing the professional review interview

**IfA** – Institute for Apprentices

**IOSH** – Institute of Occupational Safety and Health

**LFE** – Learning from experience

**NDT** – Non-destructive testing

**PEI** – Professional engineering institute

**SFA** – Skills Funding Agency

**UKAS** – United Kingdom Accreditation Service

**UK-SPEC** – The UK Standard for Professional Engineering Competence
## Appendix 1

### Independent Assessment Organisation’s Assessment Checklist

<table>
<thead>
<tr>
<th>Chair of Independent Assessment Organisation:</th>
<th>Yes</th>
<th>No</th>
<th>Assessment comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module for review</td>
<td></td>
<td></td>
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<tr>
<td>Was the apprentice issued with a start-up pack?</td>
<td></td>
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<tr>
<td>Was the quality plan submitted to the independent assessment organisation?</td>
<td></td>
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<tr>
<td>In the first three months, did the apprentice register as an Affiliate Member of the professional body?</td>
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<tr>
<td>In the first three months, did the apprentice initiate a CPD record?</td>
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<tr>
<td>Have the apprenticeship manager’s three-monthly reports been received?</td>
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<tr>
<td>Did the employer carry out appropriate monitoring of the behaviours?</td>
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<tr>
<td>Has the completed log book been submitted?</td>
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<tr>
<td>Has the completed portfolio of evidence been submitted?</td>
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<tr>
<td>Has the apprentice’s project report been submitted?</td>
<td></td>
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<tr>
<td>Has the IEng competency matching form been received?</td>
<td></td>
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</table>
### Appendix 2

**Professional Review For IEng**

*Scores derived from notes taken during interview*

<table>
<thead>
<tr>
<th>Candidate’s name:</th>
<th>Candidate’s reference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of interview:</td>
<td>Date and time:</td>
</tr>
<tr>
<td>Independent assessors:</td>
<td></td>
</tr>
<tr>
<td>Observer:</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Very strong</th>
<th>Practice standard</th>
<th>Adequate awareness</th>
<th>Little or no evidence</th>
<th>Row score</th>
<th>Block mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1. Sound theoretical approach to application of technology in practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Evidence-based approach to problem-solving and improvement</td>
<td></td>
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<tr>
<td>B</td>
<td>1. Identify, review and select techniques, procedures and methods</td>
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<tr>
<td></td>
<td>2. Contribute to design and development of solutions</td>
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<td></td>
<td>3. Implement design solutions and evaluate</td>
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<tr>
<td>C</td>
<td>1. Plan for effective project implementation</td>
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<tr>
<td></td>
<td>2. Manage planning, budgeting and organisation of tasks, people and resources</td>
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</tbody>
</table>
### Final Report on IEng Professional Review

1. You should consider recommending the candidate for registration if the following conditions are met:
   
   - The total score is not less than 27

   and

---

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The block mean score in any block is not less than 1.5

and

There is not more than one zero across the whole form

and (where applicable)

Any special requirements of the Institute have been satisfied.

2. Where these conditions are not met by a small margin but the reviewers wish to recommend registration, they may make a positive recommendation to the Institute’s Membership Committee, provided that they argue a case for dispensation from normal guidelines. This must not be out of misplaced kindness but because there is evidence that cannot properly be accounted for on the form. Give the reasons below:

3. Where the guidelines are not met and there is no exceptional case to be made under paragraph 2, the candidate is not yet ready for registration in the section of the register for which he or she has applied. It may be possible to retest the evidence against the criteria for another section of the register, provided both the candidate and reviewers agree to that course of action.

4. In the case of an interview conducted using video conferencing, the photographic identification (ID) of the candidate must be verified before the interview commences.

VERIFICATION OF PHOTO ID:

Verified ☐ Not applicable ☐

RECOMMENDATION: Accept ☐ Reject ☐

CHAIRMAN’S SUMMARY

Enter here a statement about the overall view of the panel. Any special strengths or weaknesses should be included.

Please be as informative as possible to ensure that it is obvious to ECWG and MQ&E how you reached your final recommendation.
The information supplied will be used to help any unsuccessful candidates address any shortcomings.

Any adverse decision will be discussed by the full MQ&E Committee.

INDICATE CANDIDATE ROUTE: STANDARD/INDIVIDUAL

Baroness Platt Award: Does interview panel recommend ECWG consider for nomination to the Engineering Council for the Baroness Platt Award? (See Forms FF031 and FF032)

Yes/No

PANEL:

I certify that in assessing this candidate and completing this form I have acted impartially and there has been no conflict of interest.

(Please print name and give engineers’ registration section, membership grade and other post-nominal initials.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td></td>
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<tr>
<td>Member</td>
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<td>Member</td>
<td></td>
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<tr>
<td>Observer</td>
<td></td>
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</tbody>
</table>
Appendix 3

Portfolio of Evidence Checklist

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer details</td>
<td></td>
</tr>
<tr>
<td>Apprentice details</td>
<td></td>
</tr>
<tr>
<td>Apprentice’s up-to-date CV</td>
<td></td>
</tr>
<tr>
<td>Gantt chart</td>
<td></td>
</tr>
<tr>
<td>Record of Level 2 English and maths</td>
<td></td>
</tr>
<tr>
<td>Record of NDT training and certification</td>
<td></td>
</tr>
<tr>
<td>Record of degree(s) training and certification</td>
<td></td>
</tr>
<tr>
<td>Record of other engineering training and certification</td>
<td></td>
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<tr>
<td>Record of health &amp; safety training and certification</td>
<td></td>
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<tr>
<td>Record of behaviours training and certification</td>
<td></td>
</tr>
<tr>
<td>Record of employer’s continuous assessment</td>
<td></td>
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<tr>
<td>Record of behaviour monitoring</td>
<td></td>
</tr>
<tr>
<td>Training – other than the above, certificates of attendance</td>
<td></td>
</tr>
<tr>
<td>Training – other than the above, end of training certificates of</td>
<td></td>
</tr>
<tr>
<td>accomplishments (tests)</td>
<td></td>
</tr>
<tr>
<td>Certification – other than the above, certification gained during the</td>
<td></td>
</tr>
<tr>
<td>apprenticeship</td>
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<tr>
<td>Record of CPD</td>
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<tr>
<td>Record of CPD forward plan</td>
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<tr>
<td>IEng competency matching form (obtained from BINDT)</td>
<td></td>
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</tbody>
</table>