Training and approval of initial personnel in new NDT technologies
Background

The application of new NDT methods/technologies requires that personnel be approved at the appropriate levels in the relevant method.

Requirement for NDT personnel training and approval is defined by EN4179, but only defines requirements for ‘major’ methods.

There is a risk that formal training and approval could become adhoc across the industry if not prescribed.

The UK NAndtB has a responsibility to ensure this does not happen.
Rules

- Must comply with requirements of EN4179 in so far as is possible in the absence of any prescribed method requirements.
- Personnel must be approved at appropriate levels commensurate with currently defined responsibilities.
Training & Experience

- Latest draft of NAS410/EN4179 proposes the training and experience hours for some new NDT methods, e.g. IRT:

<table>
<thead>
<tr>
<th></th>
<th>level 1</th>
<th>level 2</th>
<th>level 2*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>20</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>Experience</td>
<td>200</td>
<td>600</td>
<td>800</td>
</tr>
</tbody>
</table>

* Direct Access

- No reason to presume these are not appropriate for new NDT methods.
Reduced Experience

- If a new NDT method is being introduced at technique level, then it should not be unreasonable to allow approval based upon reduced experience.

- Proposed that under such circumstances, personnel be initially approved as Level 2 Limited.
  - Note: EN4179 permits the use of additional levels.

- The employers written practice must document the requirements for any additional levels (may be a separate training pack).

- When sufficient documented experience has been gained, a Level 2 Limited can be approved as a level 2... in the technique.
Approval Process

- Level 2 Limited
  - Per EN4179 L2: 20+40 = 60hrs* 
    - e.g. 80hrs
  - Experience: 720hrs experience at Level 2 Limited

- Requirement
  - Examination
    - Training: 20+40 = 60hrs* 
  - Experience
    - 800hrs

- Level 2
  - Per EN4179

* for IRT

May be reduced where experience is being gained in other method(s) simultaneously.
Level 2 Limited

- Must be re-approved annually.
- Can accept/reject hardware.
- Can only be approved to level 2 within technique (after gaining required level 2 experience).
  - Performance of additional techniques within the method may require further training, experience and examination as considered appropriate by the Level 3 (see later).
Level 3

- Required to fulfil Level 3 responsibilities.
  - Approve procedure/specification/technique.
  - Approve Level 1, Level 2 Limited, Level 2 personnel.
  - Approve additional level 3’s to full EN4179 requirements.
  - Etc.
Genesis Level 3 Approval

Can only do this once unless new technique requires new procedure specification

- Requirement
  - General Theory
    - Specific Theory
      - Practical
        - Level 2 Experience
          - Pass independent qualification, ie. ASNT, PCN etc.
          - Establishes procedure specification
          - Waive based upon success above. Cannot accept/reject hardware