NQ Verification 2021–22 Round 2

Qualification Verification Summary Report

01 Section 1: Verification group information

Verification group name: **Practical Electronics**
Verification event/visiting information: **Visiting**
Date published: **June 2022**

National Courses/Units verified:
C860 05   National 5   Practical Electronics

02 Section 2: Comments on assessment

Assessment approaches

All centres verified used, as is mandatory, one of the SQA course assessment tasks for the practical activity. While centres must use the bank of practical activities and SQA-provided marking rubric, they can define specific criteria or requirements for the chosen practical activity, which can then be incorporated into the SQA marking rubric. For example, assessors and verifiers may wish to discuss and agree what are the most essential components for the task used. Some of the centres verified have done this very effectively, showing a willingness to ensure clarity in approach to assessment and to improve the experience for candidates.

The majority of centres verified received an 'accepted' outcome with no recommendations. Where a centre had an 'accepted*' outcome regarding their approach, this was usually due to inexperience with the industrial aspects of electronics such as clarity of layout diagrams and standard conventions (colour coding of layout wires), soldering and interconnection techniques for circuit boards, test planning and resulting. Centres should ensure that candidates have access to all the appropriate tools and resources prior to starting the practical activity. This is essential for safe working practices and to give candidates every opportunity to access all marks.

Centres are reminded that where candidates struggle to produce a strip-board layout, the assessor should provide the candidate a solution to use for circuit

construction. This will allow candidates without a fully working layout diagram to still achieve maximum marks in the later construction stage.

Assessment judgements

Overall, all centres verified demonstrated a sound understanding of national standards when making assessment judgements. This was testimony to the majority of centres having an effective internal quality-assurance system in place leading to most candidates being assessed accurately, fairly and consistently.

The following observations were made, which centres may want to reflect on:

♦ There was a tendency to leniency when assessing the reporting section. For example awarding maximum marks for a record of progress when there is limited record of testing. The key to gaining marks here for candidates is to ensure that they update their record of progress after each stage (key milestone) of the practical activity. A pro forma could be used to aid both the candidate and the centre with their assessment judgements.

♦ Where a candidate constructs sub-systems that are fully functional and align with the layout diagram provided by the teacher, assessors can judge this as 'Layout fully constructed and fitting all components accurately'.

♦ Where a candidate constructs sub-systems with a range of test points that are not quite the full range of test points expected, assessors can judge this as 'Each sub system input and output and some testing stages have test points'.

♦ Where the standard wiring convention is not used this should be reflected in the marks awarded for 'Neatness of sub-system layout'.

A series of Understanding Standards videos is available on the secure site for the practical activity. The intention of this resource is to support assessors and internal verifiers to interpret and apply the marking rubric. We encourage all centres to make use of this resource to aid their assessment judgements.

03 ▶ Section 3: General comments

In the early days of this course, centres had difficulty getting staff with the relevant experience to deliver, assess and internally verify this course. This situation has improved greatly over the last few years with more experienced staff now delivering the course. In addition, there are more opportunities for staff to share experiences through social media as well as regional networking. This has improved the internal verification process as well as overall performance.

None of the centres verified this session had previously had the benefit of a verification visit, and some had never had an approval visit either. Both kinds of visit provide a high level of support and guidance. It is encouraging that, despite this, verification found that the centres have a good understanding of the course requirements. This instils confidence in centres' ability to deliver and develop this course.