



**National Qualifications 2014
Internal Assessment Report
Electrical Principles**

The purpose of this report is to provide feedback to centres on verification in National Qualifications in this subject.

National Qualifications (NQ) Units

General comments

In session 2013–14 four external verification visits were undertaken by four External Verifiers. All four centres externally verified were further education colleges and all four external verification visits were conducted using SQA's mainstream approach to quality assurance. During these visits the following NQ Units were externally verified (the figures in brackets indicate in how many centres each Unit was externally verified):

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|------|----|---|
| F5H7 | 11 | Circuit Element Devices at SCQF level 5 |
| F5H8 | 12 | Circuit Element Principles at SCQF level 6 (2) |
| F5J7 | 12 | Electrical Network Analysis at SCQF level 6 |
| F5HK | 11 | Electrical Principles at SCQF level 5 (3) |
| F5HL | 12 | Electrical Principles at SCQF level 6 |
| F5HM | 11 | Electrical Testing and Measurement SCQF level 5 (2) |
| F5HN | 12 | Electrical Testing and Measurement SCQF level 6 (2) |
| F5D3 | 12 | Electrostatics and Electromagnetics SCQF level 6 (2) |
| F5JV | 12 | Single Phase and Three Phase Principles at SCQF level 6 (3) |

It is pleasing to report that all visits were successful. This meant that no Holds were placed on any of the NQ Units. This success confirms that all four centres were meeting the national standards in Electrical Principles at NQ Level.

Unit specifications, instruments of assessment and exemplification materials

The External Verifiers reported that centres maintained the most up to date copies of Unit specifications in master folders. For the Units externally verified centres were either using Assessment Support Pack materials or assessment instruments devised internally in the centres. External Verifiers confirmed that all assessment instruments used by centres conformed to the assessment specifications set out in Unit specifications and were fair, valid, equitable and reliable. All assessment instruments used to assess candidates in the above Units had clear, accurate and reliable marking schemes.

Evidence Requirements

For the Units verified, centres provided more than sufficient evidence for external verification purposes. Such evidence normally included assessment and re-assessment papers; detailed solutions and marking guidelines; candidate responses; candidate records of achievement; Unit support packs and internal verification documentation.

A review of the candidate evidence provided by the four centres indicated clearly that centres had a good understanding of the Evidence Requirements in the NQ Electrical Principles Units externally verified.

Administration of assessments

External Verifiers generally found that assessors and internal verifiers were applying their own centre's internal verification policies and procedures correctly to ensure that the correct standards were being maintained. However, in one centre there was a need to put in place a new format and update SCQF level 5 records so that the whole internal verification system can be applied uniformly. Information from External Verifier reports indicated that internal verification normally took the form of sampling of candidate work for second marking purposes (in a different colour of ink) and completion of a range of centre-devised internal verification documentation.

Areas of good practice

In all four centres the External Verifiers visited they had access to Unit master folders. These folders were generally comprehensive and contained all essential information such as an up to date Unit specification, summative assessments and checklists, marking schemes and internal verification documentation. In one centre the master folders contained Unit summary forms, which are very helpful for new lecturers delivering Units for the first time.

In all four centres, assessors provided candidates with appropriate verbal and written feedback. Candidates were generally complimented for good work. However, where work was not up to standard, candidates were required to undertake appropriate remediation. In one centre an assessor annotated where candidates had not included Units after their numerical answers (a frequent occurrence).

In one centre the following good practice points were noted:

- 1. 'Good practice was displayed in the processes involved in the centre's internal verification system, and also in the way that staff managed and used the system. The electronic system was robust and identified specific staff with clearly defined roles. The system also facilitated a good method for controlling the storage of assessment instruments and ensuring that up to date versions were being used. Control of assessments was through the Moderation Group Leader and all new assessment instruments were dated for currency and maintained in a secure folder.'*
- 2. The centre's internal verification system had been effective in identifying the requirement for staff development for a new member of delivering staff.*
- 3. The centre was using its own internally devised instruments of assessment to supplement those in the SQA Assessment Support Packs.'*

In another centre the External Verifier noted the following:

'The documentation for internal verification is available online for use by teaching staff and excellent records are stored with hard copies available if necessary. The teams use a simple front sheet referred to as the internal verification

summary sheet, which is extremely helpful during the internal and external verification process. This is followed by a formal detailed internal verification report record, which is very informative. Records of team meetings were available online. All in all, a very robust system is in place and is being put to good use by teams.'

In yet another centre significant investment had already been made in electrical laboratory equipment with the intention that further investment in equipment would be made in the near future. Such investment can only enhance the learning experience for candidates.

Specific areas for improvement

No development points were identified by External Verifiers during their visits, except that centres should ensure that all internal verification documentation and records have a uniform format and are applied consistently regardless of the level of the Units being internally verified. (External Verifiers understood that with the move to the regionalisation of colleges some inconsistencies in assessment and internal verification policies, procedures and practices were inevitable.)