

## Report on Monitoring Standards 2004

### SVQ: Installing & Commissioning Electrical Systems and Equipment level 3 (G6H6 23)

Two experienced members of SQA's verifying team along with an external subject specialist and representative from the Scottish Electrical Charitable Training Trust (SECTT) judged assessment material and candidate evidence as per performance objective (PO) which were placed in one of the following four groupings:

<b>PO Numbers</b>	<b>Grouping</b>
1-7	Health & Safety
8-10, 26-39, 52 & 56	Practical and Project Work
31-37 & 53-55	Electrical Principles
11-25 & 38-51	Electrical Installation Theory

A 'grouping' rather than 'unit' approach was agreed because at the outset of the vocational qualification (VQ), a matching exercise was conducted between the former SCOTVEC modules and the VQ Standards which resulted in an assessment specification document being produced which covered all the criteria demanded by the VQ standards. As the centre assessment material follows the assessment specification and the candidate assessment record books (CARs) have also been grouped into the above POs for recording achievement of each candidate, the team agreed that they would look at the above groups of POs and the scrutiny exercise was conducted on this basis.

Centres were asked to provide evidence for two candidates for each of the above groupings. There were a total number of 75 judgements for assessment instruments and assessment decisions in 2004. Detailed comments for each grouping are included as an appendix.

#### **Quality of collected material**

From the evidence submitted by the centres it was obvious that a high standard of assessment practice is being maintained. The centres have to be commended for their good work in producing the assessments and for the effort being applied to the integration of groups of performance objectives and the production of relative and rewarding projects.

#### **Assessment instruments**

The assessment specification document covers the performance objectives required for the candidates following this programme and details the method of delivery and the type of assessment which can be applied. The assessment specification produced by the Scottish Joint Industry Board (SJIB) has no doubt been a big help in this process. However, one item that the specification is weak on, is the area of conditions of assessment. This is an area which will have to be highlighted both to the centres delivering the VQ and to the external verifiers. The panel suggested that perhaps this is an area which could be taken on board by the SJIB and by Scotland's Trade Association for the Electrical, Electronics and Communications Systems (SELECT) and could be included in the assessment specification so that a common standard could be applied where possible.

## **Evidence of candidate performance**

The centres have to be commended for their good work in producing the assessments and for the effort being applied to the integration of groups of performance objectives and the production of relative and rewarding projects. One area of weakness however is the lack of traceable tracking systems for these projects and it is recommended that centres and external verifiers be made aware of this.

## **Assessment decisions**

From the evidence submitted by the centres it was obvious that a high standard is being maintained in the assessment decisions being made by the assessors.

## **Comparing standards over time**

Since the last monitoring exercise of this VQ in 1999 there has been a major change in the layout of the assessment specification booklet in that, while there is little change in the content of the performance objectives, the **number** of performance objectives has been reduced considerably. This resulted in the assessment instruments having to be re-arranged/re-written and in some cases integrated or in fact being developed into mini-projects.

This process has resulted in an overall improvement in the quality of the assessments and the centres and their staff have to be commended for all their good work.

## **Recommendations**

It is recommended that the following points be addressed before the next monitoring of this VQ:

SQA should:

- ◆ notify centres of the lack of 'conditions of assessment' and the need for traceable tracking systems
- ◆ make available samples of candidates log books for future monitoring events

Any action should be made through SELECT so that the matters could be discussed at both the centre consortium meetings and the college symposium

**PO Numbers:** 1–7  
**PO Group Name:** Health and Safety

### Introduction

The main purpose of these performance objectives is to ensure that the candidates are aware of the Health and Safety requirements regarding the Health and Safety at Work Act, Risk Assessments, Safe Working Practices and the general requirements of the Electricity at Work Regulations. The candidates undertaking these objectives will be electrical apprentices on a Modern Apprenticeship in Electrical Contracting. As these POs are undertaken at the beginning of their training, the uptake is 100% at this stage although as these POs are also staggered throughout their training programme it will be expected that a drop out may occur but this will not be directly related to the PO content, but to other factors.

### Assessment instruments

The assessment instruments used followed the assessment specification requirements which are acceptable for the purpose of the POs. In the main, the presentation quality of the assessments was good with a few being exceptional with a few just barely meeting the standard required. The level of demand of the assessments followed the assessment specification with a few exceeding the standard required. With the exception of a few assessments, the condition requirements **were not** given in the assessment instrument. The guidance on criteria for Pass and validity to POs and range were very clear throughout the assessments. There was some evidence of integration present, however this group of POs does not lend itself towards integration as POs have to be delivered by different disciplines at this early stage of the training programme.

Overall the assessment instruments met the criteria of the assessment specification. Although the conditions of assessments were not recorded on the instrument of assessment the team felt that this aspect was being conducted verbally but not recorded.

### Evidence of candidate performance

The assessors decisions on the candidates performance evidence were fair and accurate. The application of the performance criteria of the assessment specification was consistent over the evidence submitted. There were a number of good assessment practices throughout, in particular the application of real life scenarios in the areas of risk assessment and procedures dealing with fires.

Overall the assessors' decisions, application of standards and good assessment practices were of a very good standard and should be commended.

## **GROUPING REPORT**

**PO Numbers:** 8–10, 26–39, 52 & 56  
**PO Group Name:** Practical and Project Work

### **Introduction**

The main purpose of these performance objectives is to develop and train the candidates in the various skills required to be an electrician. The candidates undertaking these objectives will be electrical apprentices on a Modern Apprenticeship in Electrical Contracting.

As these POs are staggered throughout their training, the uptake is 100% it will be expected that a drop out may occur somewhere along their apprenticeship, but this will not be directly related to the PO content but to other factors.

### **Assessment instruments**

The assessment instruments used followed the assessment specification requirements which are acceptable for the purpose of the POs. In the main, the presentation quality of the assessments was very good. The level of demand of the assessments followed the assessment specification with a few exceeding the standard required. With the exception of a few assessments, the condition requirements **were not** given in the assessment instrument.

The guidance on criteria for pass and validity to POs and range were very clear throughout the assessments. There was considerable evidence of integration present with some centres involving other performance objectives from other groups within the project work.

Overall the assessment instruments met the criteria of the assessment specification. Although the conditions of assessments were not recorded on the instrument of assessment the team felt that this aspect **was** being conducted verbally but not recorded. The above comments were based on the team's external verifiers (EVs) feedback as the practical assignments and candidates log books were not included with the centres' submitted material.

### **Evidence of candidate performance**

The assessors decisions on the candidates performance evidence were fair and accurate. The application of the performance criteria of the assessment specification was consistent over the evidence (practical checklists) submitted. There were a number of good assessment practices throughout, in particular the integration of performance objectives within the practical exercise.

Overall the assessors' decisions, application of standards and good assessment practices were of a very good standard and should be commended. Once again the team had to rely on the comments from the visiting external verifiers as to the good practices being adopted at the centres. Some of the practical checklist being used still refer to the conditions of assessment given in the appendices of the assessment specification and it is felt that this could be reduced to a checklist containing only the evidence sources required.

## **GROUPING REPORT**

**PO Numbers:** 31–37 & 53–55  
**PO Group Name:** Electrical Principles

### **Introduction**

The main purpose of these performance objectives is to develop a knowledge and understanding of the principles of electricity when applied to electrical circuits and equipment.

The candidates undertaking these objectives will be electrical apprentices on a Modern Apprenticeship in Electrical Contracting.

As these POs are staggered throughout their training, the uptake is normally 100%. It will be expected that a drop out may occur somewhere along their apprenticeship which may or may not be related to the PO content but to other factors.

### **Assessment Instruments**

The assessment instruments used followed the assessment specification requirements which are acceptable for the purpose of the POs. In the main, the presentation quality of the assessments was very good. The level of demand of the assessments followed the assessment specification with a few exceeding the standard required. With the exception of a few assessments, the condition requirements **were not** given in the assessment instrument.

The guidance on criteria for pass and validity to POs and range were very clear throughout the assessments. There was little evidence of integration present with centres tending to treat these POs as stand alone performance objectives.

Overall the assessment instruments met the criteria of the assessment specification. Although the conditions of assessments were not recorded on the instrument of assessment the team felt that this aspect **was** being conducted verbally but not recorded. The academic nature of these POs can inhibit the progress of a few of the candidates and centres should be encouraged to integrate these principles into the practical content of the VQ where possible.

### **Evidence of candidate performance**

The assessors decisions on the candidates performance evidence were fair and accurate. The application of the performance criteria of the assessment specification was consistent over the evidence (practical checklists) submitted. There were a number of good assessment practices throughout, in particular the use of tutorial packages to reinforce the learning process.

Overall the assessors' decisions, application of standards and assessment practices were of a very good standard and should be commended. It is recommended that graph paper should be used more regularly throughout these POs as this would greatly improve the candidate evidence presentation.

## **GROUPING REPORT**

**PO Numbers:** 11–25 & 38  
**PO Group Name:** Electrical Installation Theory

### **Introduction**

The main purpose of these performance objectives is to develop a knowledge and understanding of the installation practices and IEE Regulations to be applied to electrical circuits and equipment. The candidates undertaking these objectives will be electrical apprentices on a Modern Apprenticeship in Electrical Contracting. As these POs are staggered throughout their training, the uptake is normally 100%. It will be expected that a drop out may occur somewhere along their apprenticeship which may or may not be related to the PO content but to other factors.

### **Assessment Instruments**

The assessment instruments used followed the assessment specification requirements. In the main, the presentation quality of the assessments was very good. The level of demand of the assessments followed the Assessment Specification with a few exceeding the standard required. With the exception of a few assessments, the condition requirements **were not** given in the assessment instrument. The guidance on criteria for pass and validity to POs and range were very clear throughout the assessments. There were a number of good assessment practices throughout, in particular the integration sets of performance objectives into mini-projects.

Overall the assessment instruments met the criteria of the assessment specification. Although the conditions of assessments were not recorded on the instrument of assessment the team felt that this aspect **was** being conducted verbally but not recorded. While good integration practice was being applied the team considered that tracking systems could be improved.

### **Evidence of candidate performance**

The assessors decisions on the candidates performance evidence were fair and accurate and the application of the performance criteria of the assessment specification was consistent over the evidence (practical checklists) submitted. There were a number of good assessment practices throughout, in particular the integration of performance objectives within mini-projects.

Overall the assessors' decisions, application of standards and assessment practices were of a very good standard and should be commended. It is recommended that traceable tracking procedures be applied where a fair level of integration is applied.