PORTABLE APPLIANCE TESTING PROCEDURE

INTRODUCTION

The University of the West of Scotland has a legal obligation to maintain, so far as reasonably practicable, electrical systems and equipment. This is a requirement of the Electricity at Work Regulations 1989.

In order to satisfy the requirements of the Regulations, the University conducts Portable Appliance Testing (PAT) in accordance with HSG 107, “Maintaining Portable Electrical Equipment” and INDG 236, “Maintaining Portable Electrical Equipment in Low Risk Environments.”

RESPONSIBILITIES

Responsibility for implementation of this procedure lies with the Deans of Schools and Heads of Departments.

All users of portable appliances must ensure that such appliances used within their area of responsibility are notified to the Estates department.

The Estates department is responsible for maintaining an inventory of all portable appliances, based on information from Schools and Departments, and ensuring that all such equipment is suitably tested.

The Health, Safety and Wellbeing Champion within each school and department must bring any safety related concerns reported to them, to the attention of the Dean/Head of Department, Resilience and Safety Team or Health, Safety and Wellbeing Committee as appropriate.

The role of the Resilience and Safety Team is to advise and assist Deans of Schools and Heads of Departments and their staff on the implementation of this procedure.

PROCEDURE

HSG 107 defines portable appliances as “equipment intended to be connected to a generator or a fixed installation by means of a flexible cable and either a plug and socket or a spur box, or similar means. This includes equipment that is either hand-held or hand-operated while connected to the supply, intended to be moved while connected to the supply, or likely to be moved while connected to the supply.”

It should be noted that all portable appliances are subject to the terms of this Procedure, including those owned by students and used in the Residences.
A combination of methods are used to ensure the safety of portable appliances, including user checks, visual inspection and combined inspection and testing. The frequency of each is based upon the level of risk with consideration given to the type of equipment (e.g. earthed or double insulated), whether it is hand-held equipment, the manufacturer’s recommendation, age and initial integrity of the equipment, the working environment, frequency of use, foreseeable misuse and the results of previous inspection and testing. Suggested initial maintenance frequencies are based upon HSE Guidance.

User Checks

All users are expected to undertake basic pre-use checks of portable appliances which extends to checking the following:

- The cable to ensure there is no fraying or cuts
- The casing to ensure there is no cracking or bent pins
- There are no taped joints in the cable
- The outer sheath of the cable securely enters the plug, e.g. should not be able to see the coloured insulation of the internal cable cores
- The equipment is not wet or contaminated
- There are no loose parts
- There is no evidence of overheating, e.g. discolouration
- The length of lead is appropriate for the positioning of the appliance

Formal Visual Inspections

Formal inspections shall be arranged by the Estates department and undertaken by competent persons. In addition to the User Checks listed above, the following should also be inspected:

- There are no signs of internal damage, e.g. overheating or water damage
- The correct fuse is in use
- The wires, including the earth are attached to the correct terminals
- The terminal screws are tight
- The cord grip is holding the sheath of the cable tightly
- No bare wire is visible other than at the terminals
- The equipment is used in accordance with the manufacturer’s instruction and is suitable for the purpose
- Consideration is given to any user complaints or concerns regarding the equipment

Any faulty equipment identified must be taken out of service and quarantined until repaired or replaced.
Combined Inspection and Testing

Some faults cannot be detected by user checks or formal visual inspection, therefore combined inspection and testing is also required. A combined test is typically required when there is any reason to suspect that the equipment is defective and the defect cannot be confirmed by visual inspection alone; following any repair or modification; and at appropriate intervals depending on the level of risk previously outlined.

A greater degree of competency is required for combined inspection and testing as this involves use of portable appliance testers and interpretation of results. All personnel involved in this type of testing must have a suitable level of competence.

Test Records

Once inspected, each portable electrical appliance will have an inspection label affixed to it which will be colour coded with a green label to indicate that the equipment has passed the test or a red label to indicate that the equipment has failed to pass the test.