

Use of Portable Electrical Equipment in the Workplace

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1. Introduction

- 1.1 This policy document identifies the procedure for all staff who wish to use personal portable electrical equipment at De Lisle College.

2. Definition

- 2.1 Portable electrical equipment is any item which has an electric lead (cable or flex) and plug. Portable Appliance Testing (PAT) is the term used to describe the examination of electrical appliances and equipment to ensure that they are safe to use.

3. User responsibilities

- 3.1 Users should undertake a visual check prior to each use (see checklist Annex A). A formal visual inspection and testing by a competent person will also be required at appropriate intervals, depending upon the type of equipment and the environment in which it is used.
- 3.2 Some items may need more frequent testing if they receive frequent or heavy use or are used in hazardous environments, e.g., power tools and extension cables used in workshops. The more often an appliance is used, the heavier the wear and tear, particularly on the flex and plug.

4. Management Responsibilities

- 4.1 Heads of Departments must give due consideration to carrying out a risk assessment to establish inspection and testing requirements more frequent than the guidance in Annex A, and must be able to show that individuals will not be put at foreseeable risk, so far as is reasonably practical. The risk assessment should consider:
 - Ensure Contractors PAT test sticker/certificate is valid on all equipment used in-service.
 - The type of equipment (e.g. portable, hand-held, or transportable).
 - The style of use (e.g. continuous, infrequent, rough, static).
 - The age of the equipment.
 - Whether the equipment is regularly moved or transported and by what means.
 - Inspection and test results (i.e., faults found) over at least the previous 2 years.
 - The environment in which the equipment is used (e.g. office, workshop, outdoors).
 - Foreseeable abuse of the equipment (e.g., by staff, other users).
 - Manufacturers' recommendations.
- 4.2 Battery-operated equipment (less than 20 volts) and other low-voltage equipment (less than 50 volts, e.g. telephone equipment) does not need to be PAT tested, but the manufacturer's guidance on the maintenance of the equipment must be followed.

- 4.3 Equipment that fails a user visual inspection or formal test should not be used, arrangements should be made for repair or disposal and replacement (in accordance with waste disposal procedures and asset tracking procedures).
- 4.4 Following repair, the issuer will arrange retesting before return to use.
- 4.5 Whilst awaiting repair or disposal such equipment must be clearly marked as faulty and securely stored where practicable.

5. Inspection and Testing – Equipment

- 5.1 All portable electrical equipment should be tested before initial use and thereafter in accordance with normal practice.

6. Inspection and Testing – New Equipment

- 6.1 New equipment should be supplied in a safe condition and not require a formal portable appliance inspection or test. However, a simple visual check is recommended to verify the item is not damaged. The item does need to carry a “CE” mark and be fitted with a British Standard plug.
- 6.2 Arrangements should be made to ensure equipment normally not kept in the building is tested in accordance with normal practice.

7. Record Keeping

- 7.1 Keeping records of inspection and tests for portable appliances is important in order to provide evidence that equipment is being maintained and to determine if a review of the current assessment is needed.
- 7.2 The following records are kept:

A record of individual items formally inspected and/or tested. A sticker or tag will be affixed to the appliance or plug. Detailing:

- Date of inspection
- Equipment ID
- Status of item PASS/FAIL (failed items will clearly indicate the equipment is not to be used)
- Name of inspector/tester
- Records are retained for 6 years.

8. Use of Private and Personal Electrical Equipment

- 8.1 Staff are only permitted to bring their own electrical equipment into work if their line manager has given permission. If the line manager has given permission, the manager is then responsible for ensuring the requirements of this document are followed.

9. Appliances with a Heating Element

- 9.1 Heaters required to supplement building heating systems are permitted only if authorised and recorded by a competent person.

10. Use of Extension Cables and Adapter Blocks

10.1 Extension Cables

The use of extension cables should be avoided where possible, through the use of socket outlets.

- If extension cables are used, they must be tested and inspected.
- Extension cables must not be connected together (i.e., an extension cable feeding another extension cable 'daisy chaining').
- The manufacturer's guidance on loading (i.e., the total amperage of appliances that can be plugged in) must be followed.

10.2 Adapter Blocks

- Multi-plug adapters ('adapter blocks' that fit directly into a socket outlet) must **not** be used. In addition to the risk of overloading, adapter blocks may cause mechanical damage to the socket due to the weight of the adapter block and plugs fitted into it.

11. Categories of Portable Electrical Equipment

Hand-held Equipment

A hand-held appliance or equipment is portable equipment intended to be held in the hand during normal use e.g. power drill, hedge cutter, soldering iron, hair drier.

This is the most hazardous type of equipment as current can flow from hand to hand and will pass close to the heart. Appliances are also gripped so the operator will find it almost impossible to let go of an appliance under shock conditions. The situation could be worse where a person is working hard and sweating or working outdoors in wet conditions. Moisture will reduce the contact resistance and a large current could flow.

Movable Equipment

Mobile equipment is intended to be moved while in operation e.g. vacuum cleaner, floor polisher, or an appliance that can easily be moved from one place to another e.g. food processor, kettle, desk fan, hot plates.

Stationary Equipment

Equipment that has a mass greater than 18kg and is not provided with carrying handles e.g. refrigerator, freezer, dishwasher, vending machine and photocopier.

IT Equipment

IT equipment includes computer monitors, data terminal equipment, power packs, mains powered telecommunications equipment, mobile phone charging units, projectors, printers, scanners and televisions. Plugs and leads to this equipment should be tested but the equipment itself may not be suitable for testing. Server room equipment will be subject to appropriate testing intervals overseen by the ICT Dept.

Appendix A: User Checks

The person using the equipment should be encouraged to look at it before use and check for signs that it may not be in sound condition, for example:

- damage (apart from light scuffing) to the supply cable, including fraying or cuts;
- damage to the plug or connector, e.g. the casing is cracking or the pins are bent;
- inadequate joints, including taped joints in the cable;
- the outer sheath of the cable is not effectively secured where it enters the plug or the equipment. Evidence would be if the coloured insulation of the internal cable cores were showing;
- the equipment has been subjected to conditions for which it is not suitable, e.g. it is wet or excessively contaminated;
- damage to the external casing of the equipment;
- loose parts or screws;
- evidence of overheating (burn marks or discolouration);
- the electrical equipment is being used in accordance with the manufacturer's instructions;
- the equipment is suitable for the job;
- there has been any change of circumstances;
- the user has reported any issues.

These checks also apply to extension leads, plugs and sockets. A user check should be made when the equipment is taken into use and during use. Any faults should be reported to the relevant manager and the equipment taken out of use

immediately. Managers should take effective steps to ensure that the equipment is not used again until it is repaired by a person competent to carry out the task (e.g. the defective equipment could be labelled as 'faulty' and if it has a rewirable plug this could be removed).

User checks should **not** include taking the equipment apart.