UNIVERSITY OF PORTSMOUTH
ESTATES AND CAMPUS SERVICES

Portable Appliance Testing

Estates and Campus Services

Code of Practice

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1.0 Introduction

1.1 Estates and Campus Services (E&CS) has produced this code of practice to support compliance with the Corporate Health and Safety Arrangement for Electricity at Work and to provide practical guidance for the University and its employees in relation to managing portable electrical appliances. The periodicity and level of inspection and testing will depend on the type of equipment, its environment and how it is used.

1.2 This document applies to items of work equipment and not personal property of staff, students or visitors. Personal appliances such as radios, coffee machines and fridges are discouraged and are not in scope of this code of practice. However, The University will accept the use of privately owned equipment for business use such as laptops and chargers in non-residential buildings as long as they are maintained in good condition and are used in appropriate circumstances.

1.3 This code of practice does not apply to personal property of students living in University Halls of Residence. Residential Services are responsible for the policy relating to the personal property of students in Halls.

2.0 Definitions

2.1 **Portable appliance** - Appliances that are not hard wired to the building i.e. plugged into a 230V 3 pin electrical socket.

2.2 **Hand held portable appliances** - Items which require control / use by direct hand contact. Examples include: power drills, soldering irons, hand held food mixers, glue guns.

2.3 **Information technology equipment** - These items include electrical business equipment, e.g. computers, scanners, photocopiers.

2.4 **Class I appliances** – These appliances have basic insulation and are earthed. Typical Class I items include toasters, kettles, washing machines and pillar drills.

Class 1 appliances have the following symbol: 

2.5 **Class II appliances** – These are commonly known as double-insulated equipment. These items have basic and supplementary insulation (double), or one layer of reinforced insulation equivalent to double insulation. Examples of Class II equipment would include food mixers, desk fans and table lamps.

Class 2 appliances have the following symbol: 

2.6 **Class III appliances** - These are supplied from an Extra Low Voltage source, which will not exceed 50V and are usually required to be less than 24 or 12 V. Typical items would include telephone answer machines and some LED Christmas lights.

Class 3 appliances have the following symbol: 

3.0 Responsibilities

3.1 Responsibilities for managing Portable Appliance Testing (PAT) are as defined in the Corporate Health and Safety Arrangement for Electricity at Work pertaining to portable appliances.

3.2 Faculties / Departments are responsible for maintaining and managing their own register of portable appliances.

3.3 Faculties / Departments who are authorised to carry out some items of PAT are responsible for the calibration and maintenance of test equipment in accordance with the manufacturer's instructions. Calibration certificates and results should be retained by each Faculty / Department.

3.4 Where electrical equipment is brought into the University by contractors, their company is responsible for the testing and maintenance.

3.5 Equipment Hire Companies are legally required to ensure that equipment supplied by them is safe for use and is regularly inspected and tested at appropriate periods. Therefore, equipment that is leased by the University should not normally need to be tested by the University.

4.0 Training and Competency

4.1 Those carrying out the inspection and testing of portable appliances must be competent to undertake the inspection.

4.2 Most portable appliance testing (PAT) is undertaken by University approved competent contractors and this process is arranged and managed by E&CS via the CAFM System. PAT may also be undertaken for some portable appliances by directly employed competent electricians in the E&CS Reactive Maintenance Team if required.

4.3 Faculty or Departments, may be authorised by the Corporate H&S Team to directly manage the inspection and testing of portable appliances issued to students and this must be undertaken by trained employees, with the appointed person holding (as a minimum) the City and Guilds (2377) In-Service Inspection and Testing of Electrical Equipment qualification. A record of competent persons and their training is to be held by the Faculty and on the

University's HR System. Refresher training should be undertaken every five years.

5.0 Record Keeping

5.1 Faculties / Departments are responsible for keeping records and registers of completed PAT and they must manage their register for all equipment that they own / manage from procurement through to disposal.

5.2 The planning of testing will be by the E&CS team and calling notices will be sent to Faculties and departments when their items are due. Records of this planned maintenance activity will be retained by E&CS electronically.

6.0 Communication and Consultation

6.1 Consultation on the contents of this code of practice shall be through the E&CS Health Safety & Wellbeing Committee.

6.2 Faculties / Departments should liaise with the Estates Helpdesk for all requests for testing of portable appliances outside their designated calling frequency.

6.3 If advice is required regarding the management of portable appliances, a request should be sent to the Estates Helpdesk and will be passed onto the Estates Electrical Managers.

7.0 Audit and Review

7.1 This code of practice shall be reviewed every three years by the E&CS Health & Safety Compliance Manager and E&CS Strategic Maintenance Manager to ensure that the document remains accurate, relevant and effective.

7.2 Monitoring and auditing of the overall management of portable appliances will be carried out periodically by the Corporate Health and Safety Team and / or E&CS Health & Safety Compliance Team at least every three years or following a significant change or incident, whichever is soonest.

8.0 Procedures

8.1 University of Portsmouth PAT Strategy

8.1.1 This code of practice predominantly covers both new and existing single-phase work equipment up to 230 volts that is intended to be connected to a fixed installation or a generator by means of a flexible cable and plug.

8.1.2 The contractor who carries out formal inspection and tests will complete a risk assessment of test priorities on year 1 of the new testing regime and will determine the frequency of testing for each item. Any new items added by faculties and departments to the list between tests will be assessed by the contractor.

8.1.3 Class 1 and specific pieces of Class 2 equipment identified as higher risk will have a formal inspection and test every year.

The main frequency of formal inspection and test for low risk (Mostly Class 2 items) will be every 4 years.

Class 3 items will not require a formal inspection and test.

8.1.4 Over time, the results of user checks, visual inspections and portable appliance tests should be reviewed to identify trends. These may indicate that some electrical appliances should be tested less (or more) often, depending on the number of problems being found.

8.1.5 When determining the frequency of testing, the contractor will consider factors that may determine a need for more frequent equipment inspection. Faculty / Department personnel will be an invaluable source of information for the contractor assessing equipment and will be expected to provide information. Examples are:

a) the **Environment** in which the equipment is being used e.g. -

- Environmental chambers and cold rooms (temperature / humidity extremes)
- In or near water i.e. pressure washing or underwater filming
- Equipment being used off site, such as field trips
- Dusty environments

b) **Damage or Interference** – If the equipment is in a situation where it could be damaged or interfered with e.g. -

- Public areas
- Laboratories
- Hand held power tools
- Heavily used items
- Transported in vehicles

8.1.6 Extension leads (portable) - These items will be tested as a Class I appliance (due to the fact that they can be used with any portable item). These items must be used in accordance with the manufacturer's guidance and must not be 'daisy chained'.

8.1.7 All microwave ovens undergo a microwave leakage test during their combined formal inspection and testing. If the equipment fails this test, the equipment must be taken out of use.

8.1.8 Newly purchased equipment does not need to be tested before being put into use provided it has a CE / BS mark and is added to the asset register by the Faculty / Department Manager so that it will be tested within the appropriate future timeframe.

8.1.9 **Information Technology equipment** – PC's and laptops are issued by IS Managed Services and are usually replaced every 4 years. Where this happens, these items will not require a formal inspection and test.
However, other ancillary items such as monitors and docking stations may not be replaced at the same frequency. Therefore, these items should be registered and given an appropriate level of inspection.

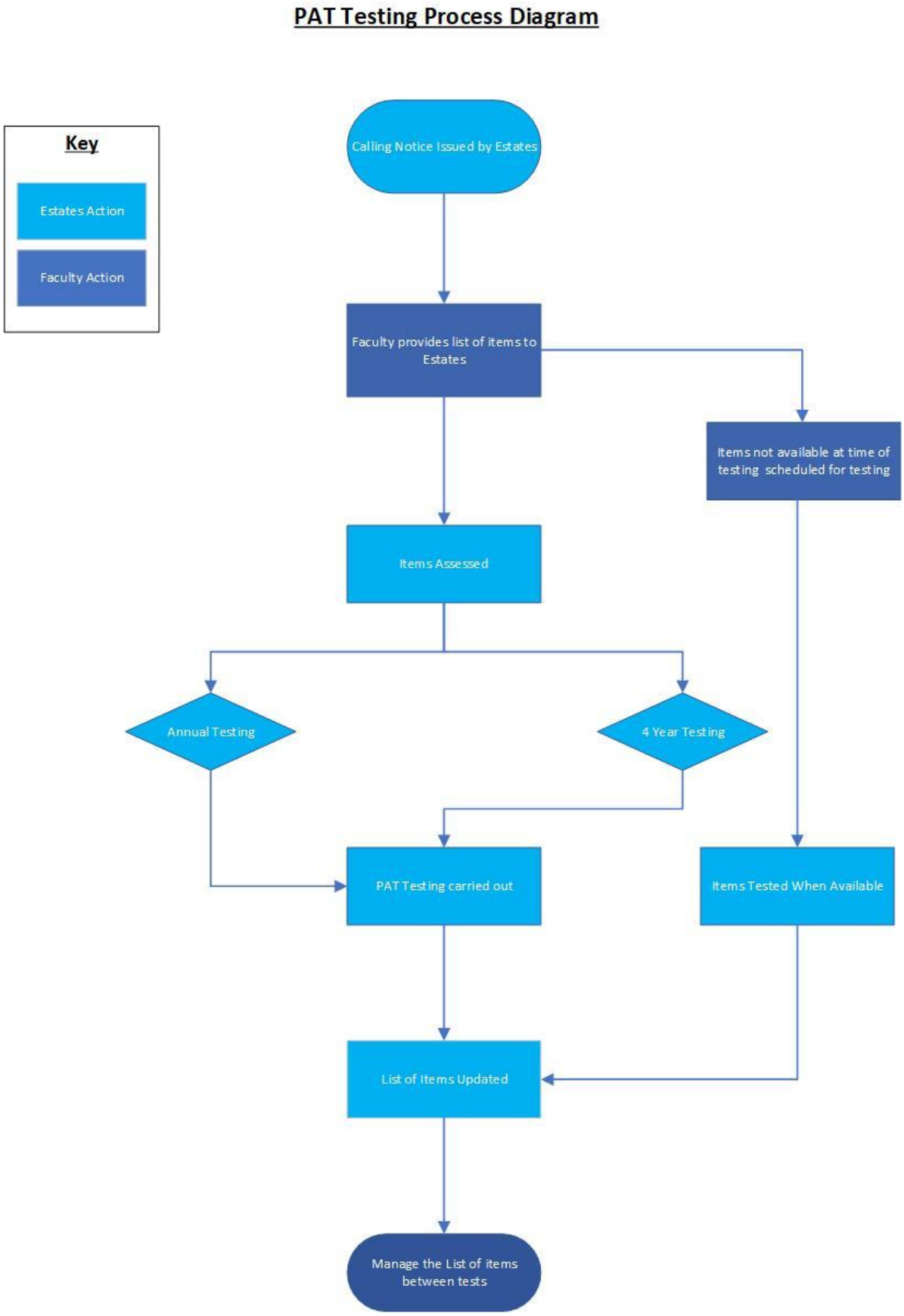
8.1.10 **Equipment that is loaned to students** - Electrical equipment that is loaned to students should be subject to risk assessment to determine the frequency of testing required by the Faculty/Department undertaking this PAT
Inspection and testing should be carried out on this equipment:
a) When there is reason to suspect the equipment is faulty or damaged but this cannot be confirmed by visual inspection.
b) After any repair, modification or similar work to equipment.

8.1.11 There are other systems and electrical equipment which will also require inspecting and testing at appropriate intervals such as:

a) three phase equipment
b) equipment operating at voltages greater than 230 volts
c) equipment operating at currents in excess of 13 amps
d) equipment which is connected to a power supply through a spur or permanent breaker which is classed as part of the fixed wiring installation.
e) fixed equipment / appliances that are fastened to a support or otherwise secured in a specific location
f) built-in appliances/equipment

Such equipment will not be subject to a standard PAT but must be inspected and tested separately by a competent person either as part of a contracted maintenance regime or by arrangement through the Estates Electrical Maintenance Team.

Annex A – Flow Chart



Annex B – Planning as per Planon

Faculty / Department	Main Buildings	PAT Testing Undertaken
Faculty of Humanities and Social Sciences		
School of Criminology and Criminal Justice	St. George's Building	January
School of Education and Sociology	St. George's Building	
School of Languages and Applied Linguistics	Park Building	
School of Area Studies, History, Politics and Literature	Milldam	
Faculty of Science and Health		
School of Biological Science	King Henry Building	February
Dental Academy	William Beatty Building	
School of Health and Care Professions	St Andrew's Court	
Department of Psychology	King Henry Building	
School of Sport, Health and Exercise Science	Spinnaker Building	
School of Pharmacy and Biomedical Sciences	St Michaels	
School of the Environment, Geography and Geosciences	Buckingham	
All Departments Located		
	Langstone Sports Office	March
	Langstone Security Lodge	
	Ravelin Sports	
	Ravelin House	
	Ravelin Stable Block	
All Departments Located		
	Gun House	April
	Student Centre	
	University Library	
All Department Located		
	Mercantile	May
	St Pauls	
	Victoria House	
	Wiltshire	
All Department Located		
	St Andrews Court	June
	University House	
	University House Security Lodge	
	University Learning Centre	
All Department Located		
	Rosalind Franklin (G/Floor)	July
	White Swan	
All Department Located		
	IMS (All buildings)	August
	Petersfield	
	Port Royal Street	
	Technopole	
Faculty of Business and Law		
Portsmouth Business School	Richmond Building	September
Portsmouth Law School		
Faculty of Technology		
School of Civil Engineering and Surveying	Portland Building	October
School of Computing	Buckingham Building	
Institute of Cosmology and Gravitation	Dennis Sciama Building	
Learning at Work	Anglesea Building (A0.04)	
School of Mathematics and Physics	Lion Gate Building	
School of Mechanical and Design Engineering	Anglesea Building	
School of Energy and Electronic Engineering	Anglesea Building	
Faculty of Creative and Cultural Industries		
Portsmouth School of Architecture	Eldon Building	November
School of Art, Design and Performance		
School of Creative Technologies		
School of Film, Media and Communication		
Halls of Residence		
	Batesson	December
	Burrell	
	Harry Law	
	Rees	