This Information Sheet provides information on the recommended frequencies for inspection and test of different types of electrical equipment and forms part of a series of Information Sheets that supports the Safety of Electrical Equipment Policy Standard.

Frequencies of Inspection and Test

Routine inspection and appropriate testing (where necessary) of portable electrical equipment should be part of any overall strategy for ensuring the equipment is maintained in a safe condition.

The following factors should be considered when determining the frequency of inspection and testing:

- *Environment* – equipment installed in an undisturbed, controlled environment such as an office will suffer less damage than equipment in an arduous environment eg outside, wet laboratory.
- *User* – if users of equipment report damage as and when it arises, hazards will be avoided. Conversely, if equipment is likely to be exposed to abuse or is located in an area where it is difficult to control who uses it, more frequent inspection and testing would be expected.
- *Equipment Construction* – the safety of a Class 1 appliance is dependent upon a connection with the earth of the fixed electrical installation and if the flexible cable is damaged the connection with earth can be lost increasing the risk of electrocution, fire etc. Class 11 (double insulated) equipment is not dependent upon the fixed electrical installation or a connection with it for safety and if equipment is known to be class 11 in a low risk environment such as an office, recorded testing (but not visual inspections) may be omitted.
- *Equipment Type* – hand-held appliances eg soldering irons are more likely to be damaged than fixed appliances as the cabling will be moved, pulled, stretched far more than an item of equipment that is left in one position for a period of time eg computer.
- *Class 1* - if the equipment is also Class 1 the risk of danger is increased as the earthing to the equipment does not have its own integral insulation to protect the user.

Classification of Appliances

Equipment is classified according to the type of protection the equipment affords:

- Class 1: Does not rely solely on basic insulation, having some means to connect the exposed conductive parts to a protective conductor in the fixed wiring of the installation eg a plug.
- Class 11 (a): In addition to basic insulation, there is an extra layer of insulation that either covers or comprises the outer casing so metalwork cannot be touched eg Television, Transformer for Flat Screen (TFT/LCD Monitor).

- Class 11 (b): All exposed metalwork is separated from the conductors by two layers of insulation so the metalwork cannot become live. Equipment should be marked as follows:

- *Extension Leads:* Regarded as individual Class 1 items of equipment.
- *Experience* - of operating the maintenance system over a period of time, together with information on faults found will also affect the inspection frequency of equipment and associated leads, plugs etc.

Suggested Frequency Checks - Offices and Low-risk Environments

Equipment	User Check	Visual Inspection	Inspection & Test
Battery-operated (less than 20 volts)	No	No	No
Extra Low Voltage: (less than 50 volts) eg telephone equipment, low voltage desk lamps	No	No	No
Information Technology eg computers, VDUs	No	2 – 4 years	No if double insulated. **Otherwise up to 5 years**
Photocopiers, fax machines. **NOT** hand-held. **RARELY** moved	No	2 – 4 years	No if double insulated. **Otherwise up to 5 years**
Double Insulated equipment. **NOT** hand-held. Moved **OCCASIONALLY** eg fans, projectors, table lamps	Yes	2 – 4 years	No
Double Insulated equipment. Hand-held eg floor cleaners	Yes	6 months – 1 year	No
Earthed equipment (Class 1) eg kettles, mains radio	Yes	6 months – 1 year	1 – 2 years
Cables (leads) and plugs connected to the above. Extension leads [all Class 1]		6 months – 4 years **dependent** on the equipment connected to	1 – 5 years **dependent** on the equipment it is connected to