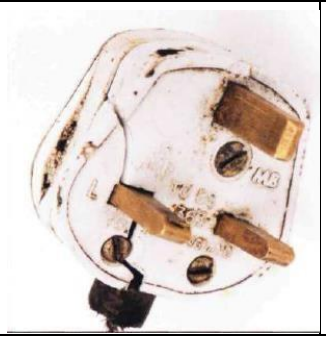
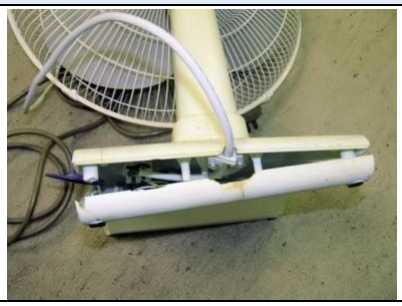
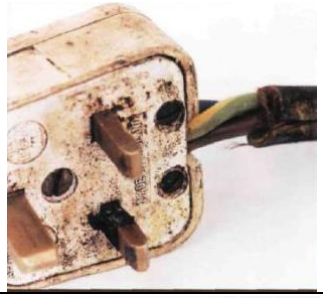
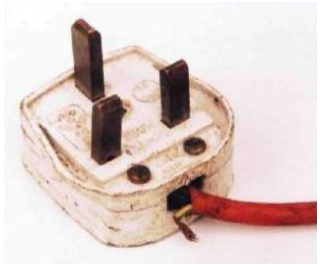
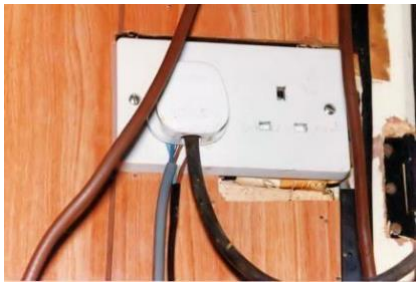
Appendix 1
Simple visual checks on electrical equipment

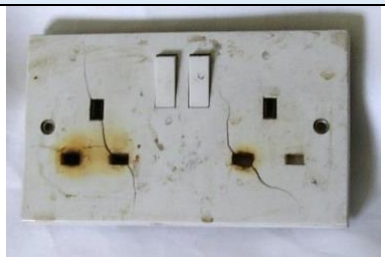
Users of electrical equipment should check that there are no signs of damage or interference with that equipment before it is used and when it is moved to a new location. Here are some general principles:

Don't use extension leads coiled up unroll them to their full length. Choose the correct sized extension lead.
Don't use frayed or poorly maintained extension leads.
Don't use electrical items missing a PAT label or displaying an out-of-date PAT label.
Don't 'daisy-chain' electrical extension leads-contact your Facilities Manager for extra resource
Do be aware of the load i.e. wrong appliances plugged into the same power source.
Do be aware of the operating conditions i.e. **Don't** use a 'domestic' extension lead outside.
Do be aware of mechanical damage to extension leads or damage by heat i.e. in workshops/labs.
Do contact your area Facilities Manager when commencing a project.

A simple visual check can detect the majority of potential problems. These checks also apply to extension leads and associated plugs and sockets. Examples of typical faults or damage are shown below.

Points to check	Example photograph	Description of photograph
Damage to the cable sheath (apart from light scuffing)		Outer insulation of the cable is broken. Inner cables or wires are visible.
Damage to the plug casing and lack of insulation on bottom two pins		The plug casing is broken. Also, the bottom two metal pins are fully exposed and have no insulation (black sheathing which covers one half of each bottom pin, closest to the plastic casing of the plug).

Points to check	Example photograph	Description of photograph
Damage to the casing of the electrical equipment		A portable fan with a broken base. Internal connections and wires are exposed.
Signs of unsafe connections		Electrical cable connectors have been used to join two separate pieces of cable in order to extend the overall length of cable.
Damage to cable grip		Outer insulation cable is not gripped inside the plug casing. Internal cables are exposed.
Lost earth connection		The earth wire has become detached from inside the plug casing.
Overloading and multiple wiring of socket		The wall mains socket is overloaded. Multiple items of electrical equipment have been wired into one plug; this is highly dangerous.
Overloading and wiring of second item of equipment onto pins outside protective casing		Wires are exposed. Two items of equipment are being run off a single plug; this is highly dangerous.

Points to check	Example photograph	Description of photograph
Evidence of overheating		Scorch or burn marks on socket casing due to either a poor connection in the socket or in the equipment which is plugged into the socket
Unsuitable conditions – outside		Electrical extension leads used outside in wet conditions.
Unsuitable conditions – poor housekeeping		Electrical cable is likely to be cut by the circular saw
Overloaded sockets		Multiple appliances connected to inappropriate adaptors, plugs or extension leads
Unsuitable conditions – poor housekeeping		Cables are lying across the floor in front of a doorway. Likely trip hazard.