OUTCOME 5

Understand the procedures and techniques for correcting electrical faults

FACTORS THAT AFFECT FAULT RECTIFICATION

Assessment criteria

5.1 Identify and explain factors which can affect fault correction, repair or replacement

SmartScreen Unit 308

Handout 22 and Worksheet 22

Some faults are minor and these can be dealt with quickly and right after the fault has been diagnosed, with little impact on materials and manpower. However, in the case of major faults in large industrial or commercial enterprises, the repair time could be weeks or months, depending on the extent of the failure. If this is the case, careful planning of the work process is required and consideration should be made of whether the likely value of the repair work will necessitate a tendering process.

Agreeing the scope of the work through a tendering process

The next stage following a tender is the preparation of a contract document between the successful tenderer and the client, to ensure that all parties are aware of their obligations. Failure to prepare a contract could result in future conflict over costs, exact work requirements and the procedure for dealing with variations from the agreed job specification.

A contract of this nature usually includes:

- scope of the work to be done
- location of the work
- the provision of information, such as drawings, plans, certificates
- details of the payment schedule – a fixed price, or time and materials arrangement
- the completion dates and schedules
- details of responsibilities that may impact on the schedules, including those of any third parties
- responsibility for additional fees or charges that may arise over the course of the project
- responsibilities and requirement for safety of the contractor's staff and others who may be affected by the work

ASSESSMENT GUIDANCE

It is not always possible to provide an exact quotation for the cost — an estimate is more likely. The customer must be kept aware of any developments.

- responsibility for losses, material damage or personal injuries that may occur during the project
- agreed variation procedure
- guarantee or warranty period for the completed work.

Downtime and costs are probably the two issues of greatest concern that must be agreed and then adhered to. Most clients prefer to fix a price and will not countenance additional costs, unless it can be proven that these result from a departure from the original specification, that could not have been foreseen.

When a quote for work is accepted, it is essential that the quoted work is undertaken; any deviation from the quote, such as not using specified components or using different-size cabling, could be construed as a breach of contract.

Procurement of a backup supply

Depending on the nature of the business affected by the fault, the client may request out-of-hours fault repair work. If this is not an option, the provision of temporary standby supplies (in the form of a backup generator) may be requested. The procurement and provision of suitable standby supplies could have an effect on the timescale for the fault rectification. Again, the supply and management of such equipment must be agreed before it is connected to the installation.

Other factors that affect timescale

Even with all agreements and arrangements in place, remember that, before the repair work can take place, an approved safe working procedure including a risk assessment must be prepared.

Any delay in providing information, such as past inspection and tests results, schematics or wiring diagrams, may have a bearing on how quickly the repair can be actioned.

Other factors may also influence the timescale. For example, if the fault has affected a functioning oven or furnace, some considerable time may need to elapse to allow the oven or furnace to cool sufficiently to allow personnel to enter the area.

Assessment criteria

5.2 Specify the procedures for functional testing and identify tests that can verify fault correction

TESTING THE CIRCUIT

When the repair work is complete, the circuit, system or individual piece of equipment must be inspected, tested and functional checks carried out in accordance with BS 7671 Chapter 61. This inspection and function testing will confirm the electrical integrity of the system before it is energised.

The tests recommended in Regulation 612, Testing of BS 7671, are divided into those tests that are conducted with the system dead and those that are done with the system live.

Tests conducted before the supply is reconnected include:

- continuity of protective conductors, including main and supplementary bonding
- continuity of ring final circuit conductors, including protective conductors
- insulation resistance.

Tests conducted with the supply connected are:

- to check the polarity of the supply, using an approved voltage tester
- earth electrode resistance, using a loop impedance tester
- earth fault loop impedance
- prospective fault current measurement
- functional testing, including RCDs and switchgear.

For detailed information on how the above testing is carried out, refer to Unit 307.

USING THE CORRECT FORMS

Assessment criteria

5.3 State the appropriate documentation that is required for fault correction work and explain how and when it should be completed

Once faults have been rectified, depending on the extent of the fault, repair work will require certification. There are two options available for the Electrical Installation Certificate (EIC): Form 1 or Form 2.

- *Form 1:* short form EIC, is to be used when one person is responsible for the design, construction, inspection and testing of an installation. An example of this form is shown on page 212.
- *Form 2:* this EIC is to be used when more than one person is responsible for the design, construction, inspection and testing of an installation. An example of this form is shown on page 213.

Whichever EIC is used, appropriate numbers of the following forms are required to accompany the certificate:

- Schedule of Inspections
- Schedule of Test Results.

When an addition to an electrical installation does not involve the installation of a new circuit a Minor Electrical Installation Works Certificate (MEIWC) may be used. This certificate is intended for use when work such as the addition of a socket outlet or lighting point to an existing circuit or a repair or modification to a circuit is undertaken.

Electrical Installation Certificates and Minor Electrical Installation Works Certificates must be completed and signed by a competent person or persons in respect of the design, the construction and the inspection and test of the installation.

ASSESSMENT GUIDANCE

Make sure you select the correct form for the purpose intended. Make sure you use the correct terminology when identifying the form. It is not an inspection schedule, it is a Schedule of Inspections; it is not a test certificate but a Schedule of Test Results etc.

Form 1 Form No: 505513 .../1

ELECTRICAL INSTALLATION CERTIFICATE

(REQUIREMENTS FOR ELECTRICAL INSTALLATIONS - BS 7671 [IET WIRING REGULATIONS])

DETAILS OF THE CLIENT Mr T Brown, 32 South St, Anytown, Surrey. Post Code: TO1 1ZZ

INSTALLATION ADDRESS The Coffee Bean, 31 Station Road, Anytown, Surrey. Post Code: TO3 2YF

DESCRIPTION AND EXTENT OF THE INSTALLATION Tick boxes as appropriate

Description of installation: Re-wire of ground floor, on change of use.

Extent of installation covered by this Certificate: Complete electrical re-wire of refurbished premises, on change of use from offices to cafe/snack bar.

(Use continuation sheet if necessary) see continuation sheet No: .....

New installation	☑
Addition to an existing installation	☐
Alteration to an existing installation	☐

FOR DESIGN, CONSTRUCTION, INSPECTION & TESTING

I being the person responsible for the design, construction, inspection & testing of the electrical installation (as indicated by my signature below), particulars of which are described above, having exercised reasonable skill and care when carrying out the design, construction, inspection & testing hereby CERTIFY that the said work for which I have been responsible is to the best of my knowledge and belief in accordance with BS 7671:2008, amended to 2011 (date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671 (Regulations 120.3 and 133.5): None

The extent of liability of the signatory is limited to the work described above as the subject of this Certificate.

Signature: W Hastings Date: 21-Jan-2011 Name (IN BLOCK LETTERS): W HASTINGS

Company Address: Hastings Electrical, 21 The Arches, Anytown, Surrey. Postcode: TO2 9YY. Tel No: 01022 999999

NEXT INSPECTION

I recommend that this installation is further inspected and tested after an interval of not more than 5 years/~~months~~.

SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS Tick boxes and enter details, as appropriate

Earthing arrangements	Number and Type of Live Conductors	Nature of Supply Parameters	Supply Protective Device Characteristics
TN-C ☐ TN-S ☐ TN-C-S ☑ TT ☐ IT ☐ Other sources of supply (to be detailed on attached schedules) ☐	a.c. ☑ d.c. ☐ 1-phase, 2-wire ☑ 2-wire ☐ 1-phase, 3-wire ☐ 3-wire ☐ 2-phase, 3-wire ☐ other ☐ 3-phase, 3-wire ☐ 3-phase, 4-wire ☐ Confirmation of supply polarity ☑	Nominal voltage, U/U_0 (1) 230 V Nominal frequency, f (1) 50 Hz Prospective fault current, I_{pf} (2) 9.0 kA External loop impedance, Z_e (2) 0.28 *(Note: (1) by enquiry, (2) by enquiry or by measurement)*	Type: BS 1361 Fuse Rated current 100 A

Form 1 Form No: 505513 .../1

PARTICULARS OF INSTALLATION REFERRED TO IN THE CERTIFICATE Tick boxes and enter details, as appropriate

Means of Earthing

Distributor's facility ☑

Installation earth electrode ☐

Maximum Demand

Maximum demand (load) 80 ~~kVA~~ / Amps Delete as appropriate

Details of Installation Earth Electrode (*where applicable*)

Type (e.g. rod(s), tape etc)	Location	Electrode resistance to Earth
N/A	N/A	N/A

Main Protective Conductors

Earthing conductor: material Copper csa 16 mm² Continuity and connection verified ☑

Main protective bonding conductors: material Copper csa 10 mm² Continuity and connection verified ☑

To incoming water and/or gas service ☑ To other elements: N/A

Main Switch or Circuit-breaker

BS, Type and No. of poles BS EN 60947-3 (2- pole) Current rating 100 A Voltage rating 230 V

Location Services cupboard adjacent rear exit Fuse rating or setting N/A A

Rated residual operating current I_n = N/A mA, and operating time of N/A ms (at I_n) (applicable only where an RCD is suitable and is used as a main circuit-breaker)

COMMENTS ON EXISTING INSTALLATION (in the case of an addition or alteration see Section 633):

Not Applicable

SCHEDULES

The attached Schedules are part of this document and this Certificate is valid only when they are attached to it.

1 Schedules of Inspections and 1 Schedules of Test Results are attached.

(Enter quantities of schedules attached).

Form 1: Short form of Electrical Installation Certificate (always check you are using the latest forms, as found on the IET website: http://electrical.theiet.org)

Form 2 Form No: SSSS13...../2

ELECTRICAL INSTALLATION CERTIFICATE

(REQUIREMENTS FOR ELECTRICAL INSTALLATIONS - BS 7671 [IET WIRING REGULATIONS])

DETAILS OF THE CLIENT Ms D Roberts
23 Acacia Avenue Post Code: SL0 0LT
Sometown, Berks

INSTALLATION ADDRESS Unit 3 The Quadrant
Sometown Business Park
Sometown, Berks Post Code: SL1 0ZZ

DESCRIPTION AND EXTENT OF THE INSTALLATION Tick boxes as appropriate

Description of installation: Commercial office

Extent of installation covered by this Certificate: Full new installation

(Use continuation sheet if necessary) see continuation sheet No: .....

New installation ☑
Addition to an existing installation ☐
Alteration to an existing installation ☐

FOR DESIGN

I/We being the person(s) responsible for the design of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the design hereby CERTIFY that the design work for which I/we have been responsible is to the best of my/our knowledge and belief in accordance with BS 7671:2008, amended to ..2011 ..... (date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671 (Regulations 120.3 and 133.5):
None N/A

The extent of liability of the signatory or the signatories is limited to the work described above as the subject of this Certificate.

For the DESIGN of the installation: **(Where there is mutual responsibility for the design)

Signature: D.Jones Date: 15/08/2013 Name (IN BLOCK LETTERS): D.JONES Designer No 1

Signature: N/A Date: ..... Name (IN BLOCK LETTERS): N/A Designer No 2**

FOR CONSTRUCTION

I/We being the person(s) responsible for the construction of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the construction hereby CERTIFY that the construction work for which I/we have been responsible is to the best of my/our knowledge and belief in accordance with BS 7671:2008, amended to .....2011.....(date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671 (Regulations 120.3 and 133.5):
None N/A

The extent of liability of the signatory is limited to the work described above as the subject of this Certificate.

For CONSTRUCTION of the installation:

Signature: T.Smith Date: ...15/08/2013..... Name (IN BLOCK LETTERS): T.SMITH

FOR INSPECTION & TESTING

I/We being the person(s) responsible for the inspection & testing of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection & testing hereby CERTIFY that the work for which I/we have been responsible is to the best of my/our knowledge and belief in accordance with BS 7671:2008, amended to .....2011.....(date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671 (Regulations 120.3 and 133.5):
None N/A

The extent of liability of the signatory is limited to the work described above as the subject of this Certificate.

For INSPECTION AND TESTING of the installation:

Signature: G.Wilson Date: ...15/08/2013..... Name (IN BLOCK LETTERS): G.WILSON

NEXT INSPECTION

I/We the designer(s), recommend that this installation is further inspected and tested after an interval of not more than .....5..... years/~~months~~.

Form 2 Form No: ...SSSS13...../2

PARTICULARS OF SIGNATORIES TO THE ELECTRICAL INSTALLATION CERTIFICATE

Designer (No 1)
Name: D.Jones Company: The Electrical Design Partnership
Address: 23 High Street
Sometown, Berks Postcode: SL10 0XY Tel No: 01000 999999

Designer (No 2) (if applicable)
Name: Company:
Address:
Postcode: Tel No:

Constructor
Name: T.Smith Company: T.Smith Electrical Installations
Address: Unit 8a Sometown Ind Estate
Sometown, Berks Postcode: SL3 0XX Tel No: 01000 888888

Inspector
Name: G.Wilson Company: Wilson and Sears
Address: 11 Crabtree Row
Sometown, Berks Postcode: SL2 0WW Tel No: 01000 777777

SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS Tick boxes and enter details, as appropriate

Earthing arrangements
TN-C ☐
TN-S ☐
TN-C-S ☑
TT ☐
IT ☐
Other sources of supply (to be detailed on attached schedules) ☐

Number and Type of Live Conductors
a.c. ☑ d.c. ☐
1-phase, 2-wire ☑ 2-wire ☐
1-phase, 3-wire ☐ 3-wire ☐
2-phase, 3-wire ☐ other ☐
3-phase, 3-wire ☐
3-phase, 4-wire ☐
Confirmation of supply polarity ☑

Nature of Supply Parameters
Nominal voltage, ~~U~~/U_0 (1) ....230..... V
Nominal frequency, f (1) .....50..... Hz
Prospective fault current, I_{pf} (2) ..1.41.. kA
External loop impedance, Z_e (2) .....0.35 Ω
(Note: (1) by enquiry, (2) by enquiry or by measurement)

Supply Protective Device Characteristics
Type: ...BS 88-3.....
Rated current..80.. A

PARTICULARS OF INSTALLATION REFERRED TO IN THE CERTIFICATE Tick boxes and enter details, as appropriate

Means of Earthing
Distributor's facility ☑
Installation earth electrode ☐

Maximum Demand
Maximum demand (load) .....68..... ~~kVA~~ / Amps Delete as appropriate

Details of Installation Earth Electrode (*where applicable*)

Type (e.g. rod(s), tape etc)	Location	Electrode resistance to Earth
.....N/A.....	.....N/A.....	.....N/A..... Ω

Main Protective Conductors

Earthing conductor: material ...Copper..... csa .....16.....mm² Continuity and connection verified ☑

Main protective bonding conductors: material ....Copper..... csa .....16.....mm² Continuity and connection verified ☑

To incoming water and/or gas service ☑ To other elements: .....N/A.....

Main Switch or Circuit-breaker

BS, Type and No. of poles .....BS EN 60947-3 (2-pole)..... Current rating .....100....A Voltage rating .....400 V

Location ...Office Suite Consumer Unit..... Fuse rating or setting.....N/A.....A

Rated residual operating current $I_{\Delta n}$ = ...N/A... mA, and operating time of ....N/A.... ms (at $I_{\Delta n}$) (applicabe only where an RCD is suitable and is used as a main circuit breaker)

COMMENTS ON EXISTING INSTALLATION (in the case of an addition or alteration see Section 633):
.....N/A.....

SCHEDULES

The attached Schedules are part of this document and this Certificate is valid only when they are attached to it.
.....1..... Schedules of Inspections and .....1..... Schedules of Test Results are attached.
(Enter quantities of schedules attached)

A competent person is defined in BS 7671 as: 'A person who possesses sufficient technical knowledge, relevant practical skills and experience for the nature of the electrical work undertaken and is able at all times to prevent danger and, where appropriate, injury to him/herself and others'.

KEY POINT

An Electrical Installation Condition Report (EICR) will be provided when an inspection and test on an electrical installation has been undertaken in order to highlight any safety shortcomings, defects or deviations from the current version of the Requirements for Electrical Installations (BS 7671).

Therefore, competent persons must have a sound knowledge and relevant experience of the type of work being undertaken and of the technical requirements of BS 7671. They must also have a sound knowledge of the inspection and testing procedures contained in the Regulations and must use suitable testing equipment.

EICs and MEIWCs must identify who is responsible for the design, construction, inspection and testing, whether this is new work or an alteration or addition to an existing installation.

INTERPRET TESTING DATA

An inspector carrying out the inspection and testing of any electrical installation must have sufficient technical knowledge and experience to carry out the inspection and testing in such a way as to avoid danger to themselves and others. They must have knowledge of relevant technical standards, including BS 7671, and be fully conversant with the required inspection and testing procedures so that they are able to employ suitable test equipment during the test process. The inspector must also have sufficient experience to interpret the results obtained during the test process, being able to take a view and report on the condition of the installation.

It is a requirement that appropriate documentation is retained following testing and inspection, and reports can be produced in any durable medium such as written hard copy or by electronic means. The original copy of the report should be retained in a safe place and be made available to any person inspecting or undertaking work on the electrical installation in the future. If the property is vacated, the report will provide the new owner or occupier with details of the condition of the electrical installation at the time the report was issued.

Unless there are specific values that must be achieved for the installation to be deemed safe, readings such as insulation resistance should be considered relative. Readings obtained on one particular day for a piece of equipment, for example a motor, may not indicate a fault. However, the skill of the electrical technician is to determine what a trend in the readings may represent. For example, readings taken over time may show a trend that indicates failing insulation resistance and the need for some preventative maintenance. Periodic testing is, therefore, the best approach to preventive maintenance of electrical equipment.

PLANNING AND AGREEING PROCEDURES

Assessment criteria

5.4 Explain how and why relevant people need to be kept informed during completion of fault correction work

Before fault diagnosis is carried out, the safe-working arrangements must be discussed and agreed with the client and/or the duty holder (or responsible person for the installation) in a clear, concise and courteous manner. The testing and inspection procedure must be a planned activity as it will almost certainly affect people who work or live in the premises where the installation is being tested. This ensures that everyone who is concerned with the work understands what actions need to be taken, such as:

- which areas of the installation may be subject to disconnection
- anticipated disruption times
- who might be affected by the work
- health and safety requirements for the site
- which area will have restricted access
- whether temporary supplies will be required whilst the fault diagnosis is underway
- reaching an agreement on who has authority for the diagnosis and repair.

It may be that a specific person has responsibility for the safe isolation of a particular section of an installation, so that person should be identified and the isolation arrangements agreed. By entering into dialogue with the client before work commences, the potential for unforeseen events will be minimised and good customer relations will be fostered.

For example, in an office block where the electrical installation is complex and provides supplies to many different tenants located on a number of floors, the safe isolation of a sub-circuit for testing purposes may require a larger portion of the installation to be turned off initially. In order to achieve this with minimal disruption, an agreement must be reached between the competent person tasked to carry out the work and the person responsible for the installations affected. This responsible person could be the office manager, the designated electrical engineer for the site or, in some cases, the landlord of the building.

Everyone involved in the work (for example, client, electrician and those in the workplace) has a responsibility for their own health and safety and that of others who may be affected by the work. Communication between all parties will ensure compliance with the respective health and safety requirements.

KEY POINT

You should appreciate the difference between the duty holder and the responsible person.

The person in control of the danger is the *duty holder*. This person must be competent by formal training and experience and with sufficient knowledge to avoid danger. The level of competence will differ for different items of work.

The person who is designated the *responsible person* has delegated responsibility for certain aspects of a company's operational functions such as fire safety, electrical operational safety or the day-to-day responsibility for controlling any identified risk such as *Legionella* bacteria.

Assessment criteria

5.5 Specify the methods for restoring the condition of building fabric

ASSESSMENT GUIDANCE

Both overhead and underground cables are liable to damage. Overhead lines are susceptible to lightning strikes and inadvertent contact (by fishing poles, masts on dinghys, ladders etc), while underground cables can be damaged during ground excavation works or by sharp tools used in street works and similar operations.

Assessment criteria

5.6 State the methods to ensure the safe disposal of any waste and that the work area is left in a safe and clean condition

SmartScreen Unit 308

Handout 26 and Worksheet 26

RESTORING THE BUILDING FABRIC

There may be a requirement to disturb the fabric or structure of the building and, if this is the case, it is very important for all aspects of the rectification to be discussed with the client. Agreement must be obtained for the work to be undertaken, for the extent of the repair necessary (to brick, block, plaster, concrete, screed, plasterboard and decorations, for example) and for the contractual arrangements (who is paying for the repair). The fabric and structure of the building must always be left in a condition that does not compromise either fire safety or the building's structural performance.

Minor cosmetic repair works such as patch plastering, disturbance to stud walls or decoration are often within the capability of an experienced electrical technician, but you must always recognise your own limitations. Expert advice, such as from a specialist contractor, should be sought if any structural modifications are required.

WASTE DISPOSAL

Another important part of the fault repair process is the safe disposal of waste. This ensures both good customer relations and compliance with the relevant legislation, such as the Waste Electrical and Electronic Equipment (WEEE) Regulations 2006, the Waste (England and Wales) Regulations 2011 and the Control of Asbestos at Work Regulations 2012.

The UK has implemented an EU Directive through the WEEE Regulations 2006, which came into force on 2 January 2007. The regulations apply to all electrical and electronic equipment placed on the market in the UK in any of following 10 product categories:

- large household appliances
- small household appliances
- IT and telecoms equipment
- consumer equipment
- lighting equipment
- electrical and electronic tools
- toys, leisure and sports equipment
- medical devices (except implants and infected products)
- monitoring and control equipment
- automatic dispensers.

The regulations require any 'producer' of such equipment, that is a manufacturer, rebrander or importer of electrical and electronic equipment, to finance the costs of collection and treatment of waste electrical and electronic equipment that arises over a calendar year, in proportion to the amount by weight placed on the market. Producers

meet their obligations by registering with an approved *producer compliance scheme*. Through this scheme, producers fund reuse, recovery and recycling of electrical goods at an approved authorised treatment facility (AATF) or approved exporter (AE).

In 2009 there were several amendments made to the UK WEEE Regulations that mainly affect producer compliance schemes, approved authorised treatment facilities and approved exporters.

The UK has also implemented an EU Directive (The Waste Framework Directive), which is the primary European legislation for the management of waste, through a series of regulations dealing with waste. The directive has been revised and these revisions have been implemented in England and Wales through the Waste (England and Wales) Regulations 2011 and ancillary legislation in Wales.

The on-site disposal of waste materials following electrical installation work will be dealt with in a number of ways.

- The packaging material from the electrical fittings and accessories (mainly cardboard) is normally stored and arrangements made for collection, transport and recycling.
- Small amounts of non-recyclable material can be disposed of in the electrical contractor's skip or in the client's skip, if agreement has been reached for that to take place.
- Off-cuts of cable, conduit, trunking, cable tray and general ferrous and non-ferrous materials are often collected for disposal at a metal recycling plant.
- Useable off-cuts of cable, conduit, trunking and cable tray should be returned to stock for future use.

Asbestos

The Control of Asbestos at Work Regulations 2012 affect anyone who owns, occupies, manages or otherwise has responsibilities for the maintenance and repair of buildings that may contain asbestos.

Asbestos materials may be encountered by electricians during the course of their work. Asbestos materials in good condition are usually safe. However, if asbestos fibres become airborne they are very dangerous; this may happen when materials are damaged, due to demolition or remedial works on or in the vicinity of ceiling tiles, asbestos cement roofs, wall sheets, sprayed asbestos coating on steel structures, and lagging.

If asbestos is discovered during electrical installation or remedial work, work must be stopped immediately. Specialist contractors must be engaged to ascertain the condition of the asbestos and to determine any actions necessary for its removal, treatment or retention.

In particular, the disposal of asbestos should only be undertaken by specialist contractors.

ACTIVITY

Describe the action to be taken in disposal of the following items:

a) part drums of cable
b) polystyrene packaging
c) cardboard packaging
d) fluorescent tubes.

Fluorescent tubes

Fluorescent tubes generally contain 94% glass, 4% ferrous and non-ferrous metals and 2% phosphor powder, which itself contains mercury. Fluorescent tubes are classified as hazardous waste in England and Wales and as special waste in Scotland. Preferably, they should be recycled or, if absolutely necessary, taken to specialist disposal sites. They must not be disposed of as general waste.

LEAVING THE INSTALLATION SAFE

Remember that Section 3 of the Health and Safety at Work etc Act and the EAW Regulations require that installations are left in a safe condition. People who have been working on an installation must not leave it in an unsafe condition which could affect contractors, visitors or the general public. For example, where there are accessible live parts due to blanks missing from a consumer unit, suitable temporary barriers should be provided to prevent direct contact with those live parts.

If there is a risk due to a classification C1 defect (as described on page 163) it is *not* sufficient just to make the duty holder aware of the danger when submitting the report. The installation should be made safe, on discovery of the defect, by the person undertaking the inspection and testing. The duty holder or responsible person ordering the report should be advised immediately of the action taken. You should seek agreement for any necessary remedial work to be undertaken straight away or, if that is not practical, you must take other appropriate action, such as switching off and isolating the affected parts of the installation to prevent danger.