

A Guide to AS/NZS 3003: 2018 – Electrical Installations Patient Areas

Alterations & Repairs

Electrical Testing Company Pty Ltd

AS/NZS 3003: 2018



Alterations and Repairs to Electrical Installations in Patient Areas

Alterations and Repairs

- Located in **Section 6** of the standard

Alterations

- Clause 6.2 of the standard

3

Alterations to:
Patient areas NOT signposted Body or Cardiac



4

Patient areas NOT signposted Body or Cardiac

**SHALL BE
UPGRADED TO
CONFORM**

5

Patient areas that are not signposted as body-protected or cardiac-protected shall be upgraded to conform with AS/NZS 3003: 2018, prior to or during the alteration or addition to the electrical installation, or to permanently wired equipment.

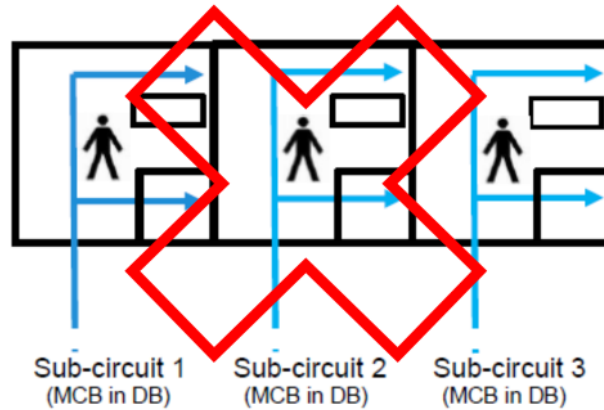
Refer to clause 2.2.3 for a list of patient areas where cardiac-type procedures may be undertaken.

Refer to clause 2.2.4 for a list of patient areas which shall be wired as body-protected electrical areas.

Areas with old signposts showing CLASS A or CLASS B electrical areas are not compliant, these must be upgraded as well.

Alterations and additions or upgrades to patient electrical services or equipment is a trigger for the facility manager to upgrade the areas patient electrical safety.

Patient areas NOT signposted Body



6

The requirements for separate circuits as stated in clause 2.4.1 need not apply in this case.

Only applies to existing patient areas being upgraded to body-protected areas.

Alleviates some of the expense to encourage upgrading.

Ensure existing sub-circuits are only looped between patient areas, as existing 30mA RCDs in switchboards cannot back up 10mA RCDs in patient areas.

Patient areas NOT signposted Body or Cardiac



7

Medical electrical equipment manufacturers and installers may not provide or install their equipment if existing patient areas do not meet compliance to the current standard.

The installation of new fixed electrical equipment rated 2kW or above will require the entire patient area be upgraded to the current standard.

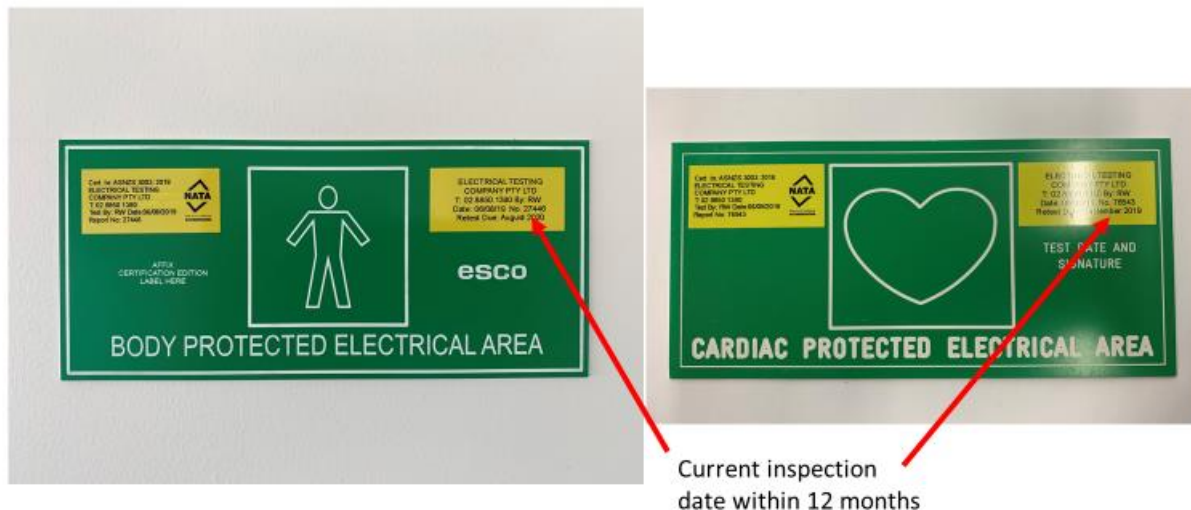
Alterations and additions or upgrades to patient electrical services or equipment is a trigger for the facility manager to upgrade the areas patient electrical safety.

Patient areas signposted Body or Cardiac



8

Patient areas signposted Body or Cardiac



9

Alterations and additions shall not proceed unless the patient area has been subject to routine test and inspection, and the inspection date is current.

If the routine test is not current, the electrician shall request that a routine inspection take place in accordance with Section 8 of the standard.

Certification of new works cannot be carried out unless the routine inspection is current.

All alterations must comply



10

Every electrical installation alteration in an existing patient area (either body-protected or cardiac-protected) shall comply with the current standard.

Alterations include additional socket-outlets and fixed equipment such as dental chairs.

Electricians should have a full understanding of the standard before undertaking alterations in existing patient areas.

Installation of new socket-outlets

- **10% increase in the socket-outlet quantity shall have the colour code requirements apply to all.**



11

If you increase the socket-outlet count by more than 10% in a patient area, all socket-outlets shall then conform with the colour coding requirements of the standard.

Example:

An existing GP consult room contains 10 white GPOs connected to the essential generator back up supply.

The areas electrical installation was installed prior to 2011 but in compliance with the body-protection requirements of the time.

The area is signposted body-protected and has a current routine test sticker.

The facility manager has requested an extra DGPO be installed in the consult room and be connected to the existing essential circuit.

Diligent routine testing of the area would have highlighted the GPO colour discrepancy.

The installation of the new DGPO must conform with the colour code requirements of the 2018 edition of the standard.

Therefore, the new DGPO must be red as it is connected to an essential supply.

The existing quantity is 10, with the addition of 2.

This equates to a 20% increase in the socket-outlet count.

Therefore, all the old white GPOs must be swapped out for red GPOs.

Patient areas signposted Cardiac

- **If the EP junction cannot be located or identified**



12

If the EP junction cannot be located or identified, the earthing system shall be upgraded to the current standard.

Patient areas signposted Cardiac

- If the EP junction is being relocated



13

If the EP junction is being relocated, the earthing system shall be upgraded to the current standard.

Patient areas signposted Cardiac

- If the EP junction is inaccessible for new connections



14

If the EP junction is inaccessible for new connections, the earthing system shall be upgraded to the current standard.

Patient areas signposted Cardiac

- **If the EP test point is not located**



a new EP test point shall be installed

15

If the EP test point is not located, a new EP test point shall be installed.

The resistance between the EP test point and the EP junction shall be a maximum of 0.01 Ω .

Patient areas signposted Cardiac

- **New installation of fixed equipment above 2kW**

earthing system upgrade required



16

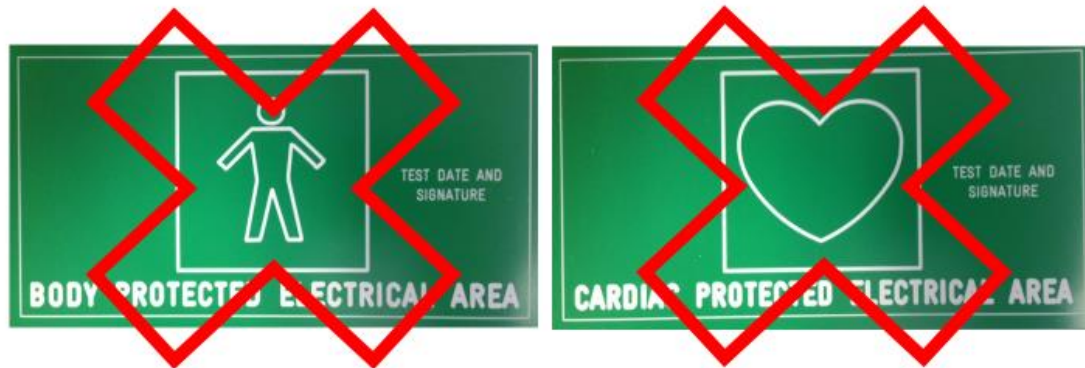
New installation of fixed equipment rated at or above 2kW, the earthing system shall be upgraded to the current standard.

Repairs

- Clause **6.3** of the standard

17

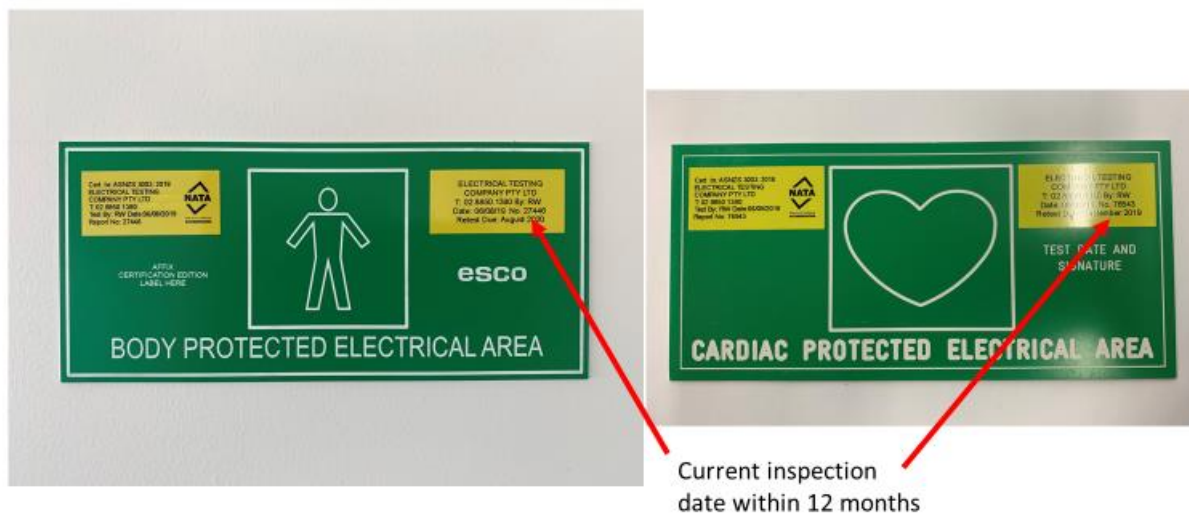
Patient areas NOT signposted Body or Cardiac



18

Should be upgraded to body-protected or cardiac-protected prior to or during the repair of RCDs or socket-outlets or permanently wired medical electrical equipment.

Patient areas signposted Body or Cardiac



Current inspection date within 12 months

19

The repair shall not proceed unless the area has a current routine electrical test.

If the routine test is not current, the electrician shall request that a routine inspection take place in accordance with Section 8 of the standard.

Patient areas signposted Body or Cardiac



Electrical accessories - equivalent components may be used

20

Repairs and replacement of electrical accessories with equivalent components may occur.

Patient areas signposted Body or Cardiac



Fixed equipment - equivalent components may be used

21

Replacement of component parts of fixed equipment with equivalent components, allowed.