BSEET04L

Install enclosures for electrical cables, conductors and wiring systems LEGACY

Overview

This standard is for people who install enclosures for electrical cables, conductors and wiring systems internally and externally for electrical systems (ac/dc).

The person carrying out this work must be able to comply with the procedures and methods for installing enclosures for electrical cables, conductors and wiring systems in accordance with the current versions of the appropriate industry standards and regulations, the specification, industry recognised working practices, the working environment and the natural environment. They must know and understand the different types of enclosures for electrical cables, conductors and wiring systems, their limitations, applications and the techniques for the positioning, fitting, fixing and connection of the enclosures, their components and accessories.

Performance criteria

You must be able to:

1. confirm the existing electrical supply is suitable for the electrical system

2. confirm before work starts that the work location and work area can be accessed safely and has been checked for the risk to other personnel on the site, and take appropriate action if a risk is present

3. produce a risk assessment and method statement for the work to be carried out, including the identification and use of personal protective equipment

4. verify that job information and documentation is current and relevant and that the plant, instruments, access equipment and tools are fit for purpose

5. select enclosures and confirm that they are:

    - of the right type and size
    - fit for purpose in accordance with the electrical system's design

6. determine at the outset, that the plans for positioning and fixing the components and accessories of the selected enclosures are in accordance with:

    - the electrical system's design
    - manufacturers' instructions

7. comply with industry practices and organisational procedures to ensure the co-ordination of site services and the activities of other trades

8. identify the correct means of electrical isolation prior to commencing installation work

9. complete the correct safe-isolation procedures to ensure the safe installation of the enclosures

10. measure and mark out the locations for fitting and fixing the selected enclosures components and accessories in accordance with:

    - the electrical system's design

- manufacturers' instructions

11. fit, fix and connect the selected enclosures its components and accessories in accordance with:

- the electrical system's design
- industry recognised methods
- manufacturers' instructions

12. confirm with the relevant people

- those necessary variations to the planned programme of work that may have the potential to introduce a hazard and/or impact
- on the installation work to be undertaken

13. the correct actions to be undertaken to ensure that any variations to the planned programme of work will not introduce a hazard and have minimum impact on the installation work to be undertaken

14. implement organisational procedures for the safe transport and/or disposal of waste materials, substances and liquids in accordance with suppliers' and manufacturers' instructions

Knowledge and understanding

You need to know and understand:

1. the operation, applications, advantages and limitations of different electrical systems

2. the appropriate industry standards and regulations relevant to installing enclosures

3. how to produce a risk assessment and method statement for the work to be carried out, including the identification and use of personal protective equipment, in accordance with:

    - the electrical system's design
    - organisational procedures

4. how to verify that job information and documentation is current and relevant and that the plant, instruments, access equipment and tools are fit for purpose

5. the applications, advantages and limitations of types of personal protective equipment

6. the applications, advantages and limitations of types of enclosures

7. the industry recognised methods for determining the type and size of enclosures

8. how to interpret diagrams and drawings for the electrical system to locate site services

9. how to interpret diagrams and drawings for the electrical system to identify the planned location of the enclosures

10. the methods and techniques for fitting, fixing and connecting the selected enclosures and their components and accessories in accordance with:

    - the electrical system's design
    - manufacturers' instructions

11. the correct procedures for safe isolation

12. the organisational procedures for confirming with the relevant people the appropriate actions to be taken to ensure that any variations to the planned programme of work will not introduce a hazard and have minimum negative impact on the installation work to be undertaken

13. the methods for the safe transport and/or disposal of waste material, substances and liquids in accordance with suppliers' and manufacturers' instructions

Scope/range related to performance criteria

Working environments (internal and/or external)

- domestic
- non-domestic
  - commercial
  - industrial
  - agricultural
  - horticultural
  - leisure and entertainment
  - residential medical and care facilities
  - public highways and parks
  - public services establishments
  - pre-1919 traditional/historic buildings

Electrical system

An electrical system (ac/dc), internal and/or external, in a building/structure that has an extra low voltage and/or low voltage single and/or multi-phase supply, circuits, equipment and components to provide:

- control
- communication
- heating
- lighting
- power

Site

- new build construction – building or structure
- an existing building or structure

Site services

- electricity
- water
- gas
- oil
- drainage
- telecommunications
- data transmission either underground or overhead

Organisation procedures

- information management
- project management
- risk assessment
- risk management
- implementing and monitoring health and safety requirements and issues
- implementing and monitoring issues relating to the natural environment
- customer services
- accident reporting
- emergencies
- communication with relevant people

Plant

- generators
- transformers for low voltage hand-tools
- lifting equipment
- access equipment

Enclosures

- PVC and steel conduit
- PVC and steel trunking
- cable tray
- basket and ladder systems
- ducting systems
- bus-bar trunking
- pre-fabricated conductor, cable and wiring systems

Relevant people

- customers/clients
- client representatives
- supervisors
- site/contract manager
- other contractors/trades
- members of the public
- work colleagues

Glossary

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