
Overview

This standard is about the assembling electrical equipment and systems to requirements in the engineering construction industry.

You will need to be able to assemble electrical equipment and systems safely and effectively to requirements whilst adhering to health, safety and environmental legislation, regulations and safe working practices.

In the context of this standard, your responsibility is to interpret and work within given specifications, selecting methods and techniques to achieve the best possible result. In some cases, you may still be expected to refer to others for final authorisation, even though you remain responsible for identifying and implementing decisions.

Who this standard is for

This standard is for electrical maintenance technicians and those that maintain electrical plant and equipment.

Performance criteria

You must be able to:

1. work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures
2. ensure that the **work environment**, materials, tools and equipment are suitably prepared for the work activities to be undertaken
3. follow all relevant instructions, assembly drawings and specifications
4. ensure that the correct electrical equipment, systems and components are available and meet the specification
5. use the correct tools and techniques to assemble the electrical equipment and systems in their correct positions
6. undertake ingress protection and foreign material exclusion procedures, as appropriate
7. assemble the electrical equipment and systems in accordance with the specification
8. check the securing arrangements of the assembled electrical equipment and systems
9. check the completed assembly to ensure that all instructions have been completed and that it meets the required specification
10. **reinstate the work area**
11. deal promptly and effectively with problems within your control and report those that have been and those that cannot be solved

Knowledge and understanding

You need to know and understand:

1. relevant legislative, regulatory and local requirements or procedures and safe working practices including your responsibilities with regard to reporting lines and procedures
2. preparation and reinstatement requirements in respect of the work area, materials, tools and equipment, and the possible consequences of incorrect actions in these areas
3. relevant instructions, engineering drawings and related specifications
4. what to do if one of the electrical components is discovered to be faulty
5. assembly methods and procedures for electrical equipment and systems:
6. the techniques for ingress protection, foreign material exclusion and the importance of this
7. how to check the assembly, that it is complete and that it meets the required specification
8. the types of defects or damage that may be found when assembling electrical equipment and systems and what to do if found
9. recording and documentation procedures
10. tool and equipment control: the correct use of relevant tools and equipment and your individual responsibility for the use, care and security of those you use

Scope/range

Work environment

This could include:

- engineering construction sites
- controlled operations
- offshore installations
- maintenance sites
- nuclear sites
- repair sites

Work environments may be open or restricted spaces:

- at height
- confined spaces
- control rooms
- controlled operational and offshore installations
- designated work areas
- explosive atmospheres
- existing plants and structures
- fabrication workshops
- in plant rooms
- inside structures, system and plant
- on access structures (scaffold)
- on open structures
- onshore and offshore installations
- shafts
- shipyards

- tunnels

Reinstate the work area

This term could include:

- returning the work area to a safe condition
- removing barriers
- sweeping up
- correctly disposing of waste materials
- storing re-usable materials, consumables and equipment in accordance with appropriate procedures
- completing all necessary documentation

ECIMPSE10

Assemble electrical equipment and systems in engineering construction



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