

# COGPEM53 - SQA Unit Code FP4M 04

## Prepare materials for the maintenance of electrical plant and equipment



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### Overview

This unit is about your competence in preparing the materials in order to carry out the maintenance of electrical plant and equipment. You will be required to check the quality and quantity of the materials, determine how the materials should be prepared and report on completion. You will be following your organisation's safe working practices and working within the work permit procedures.

This unit deals with the following:

1. Prepare materials for the maintenance of electrical plant and equipment

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

### Previous Version:

Adapted from Unit E3.5 of Process Engineering Maintenance NOS – version February 2004. This unit is a contextualised version of a unit produced by the OSC Eng Engineering Competence Standards which was originally designated ECS 2. 12 which was originally designated MPS Elec 13

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#### **Performance criteria**

- You must be able to:*
- P1 work safely at all times, complying with health and safety and other relevant regulations and guidelines
  - P2 obtain the required materials and check them for quantity and quality
  - P3 determine how the materials need to be prepared
  - P4 carry out the preparations using suitable equipment
  - P5 report completion of preparations in line with organisational procedures
  - P6 deal promptly and effectively with problems within your control and report those that cannot be solved

### Knowledge and understanding

*You need to know and understand:*

- K1 you must have a working knowledge and understanding of what your responsibilities are in respect of Health, Safety and Environment. This should include the limits of your personal responsibility, your legal responsibility for your own health and safety and the health and safety of others
- K2 you must have a working knowledge of the relevant regulations and the safe working practices and procedures required within your work area
- K3 you must have a working knowledge and understanding of how to identify the materials you are to use and recognise defects in the quality of them
- K4 you must have a working knowledge and understanding of the types of handling and preparation methods and techniques needed for different materials
- K5 you must have a working knowledge and understanding of what your responsibilities are for ensuring the security of the tools and equipment and their control procedures that you use. This could be expected to include: ingress protection ratings, portable appliance testing, explosion protection rating equipment, heating and ventilation, corrosion, Permit Systems
- K6 you must have a working knowledge and understanding of your responsibilities with regard to the reporting lines and procedures in your working environment

### Additional Information

#### Scope/range related to performance criteria

- 1 The level and extent of responsibility will involve you being responsible for ensuring the preparations are carried out safely by following company defined procedures. You will be accountable for the integrity of the work and ensuring the work is recorded in a formal manner. Authorisation for proceeding with the work will be given by authorized signatories within the PTW system
  
- 2 The type and complexity of material preparations involve standard treatments and/or require taking instrument readings for analysis. Typical preparation could include:
  - 2.1 Identification
  - 2.2 Storage
  - 2.3 Confirming alignment
  - 2.4 Setting Out
  - 2.5 Cleaning
  - 2.6 Protecting/preserving
  - 2.7 Security
  - 2.8 Precision measuring
  - 2.9 Checking quality and quantity
  - 2.10 Asset/product orientation
  
- 3 The types of materials could include materials and/or components used in the engineering activity, including:
  - 3.1 Conductors
  - 3.2 Sub Components
  - 3.3 Test Equipment
  - 3.4 Spare Parts

#### Scope/range related to knowledge and understanding

The Knowledge and Understanding levels expressed indicate the minimum level of knowledge and understanding sufficient to perform your role in a manner that would normally be associated with the minimum acceptable performance of a competent person undertaking your role.

The expression "working knowledge and understanding" indicates you are able to:

- 1 Identify and apply relevant information, procedures and practices to your usual role in your expected working environments needing only occasional recourse to reference materials
- 2 Describe, in your own words, the principles underlying your working methods. This does not mean the ability to quote "Chapter and verse". Rather you must know what supporting information is

- available, how and where to find it and from whom to seek further guidance and information confirm any additional required detail
- 3 Interpret and apply the information obtained to your role, your working practice and in your expected working environment

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**Relevant occupations** Engineering Professionals; Engineering and manufacturing technologies; Manufacturing technologies

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**Suite** Process Engineering Maintenance

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**Key words** prepare, materials, maintenance, electrical, plant, equipment