

## COGPEM37 - SQA Unit Code FP75 04

### Adjust mechanical plant and equipment to meet operational requirements



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#### Overview

This unit is about your competence in adjusting mechanical equipment in line with the manufacturers and organisations parameters. You will be required to identify the equipment to be adjusted, carry out the adjustment and complete the appropriate documentation. You will be following your organisation's safe working practices and working within the work permit procedures.

This unit deals with the following:

- 1 Adjust mechanical plant and equipment to meet operational requirements

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 M3.6 of Process Engineering Maintenance NOS – version February 2004. This unit is a tailored version of an Electrical unit produced by the ECITB from the OSC Eng Engineering Competence Standards (ECS 5.02) which was originally designated MPS Mech 4.

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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 follow the appropriate operating specifications for the equipment being maintained
- P3 carry out adjustments within the limits of your personal authority
- P4 make the required adjustments in the specified sequence and in an agreed time scale
- P5 confirm that the adjusted equipment meets the required operating specification
- P6 report any instances where the equipment fails to meet the required performance after adjustments or where there are identified defects outside the required adjustments
- P7 maintain documentation in accordance with organisational requirements

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### 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 the maintenance schedules and related specifications. This should include where to access operating requirements, and what the specified operating requirements are of specific assets, including internal maintenance schedules
- K4 you must have a working knowledge and understanding of the maintenance methods and procedures. This should include how different types of adjustment should be made, how much time is allowed for different types of adjustment, which tools, materials, and methods should be used for maintenance, and how to minimise disruption to other activities
- K5 you must have a working knowledge and understanding of maintenance records and documentation procedures in line with company and manufacturers' procedures
- K6 you must have a working knowledge and understanding of equipment operating and care and control procedures of the equipment that you use
- K7 you must have a working knowledge and understanding of maintenance authorisation procedures and limits of your responsibility and authority in line with company and manufacturer's procedures
- K8 you must have a working knowledge and understanding of your responsibilities with regard to the reporting lines and procedures in your environment

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### Additional Information

#### Scope/range related to performance criteria

- 1 The level and extent of responsibility extends to the interpretation of a specification, selecting and verifying methods, procedures and materials at his/her discretion to achieve the best possible result in the conditions applying. 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.
  
- 2 The type of equipment to be worked on involve more than one technology and/or involve a significant number of fragile/valued components and/or difficult to access for maintenance. Typical assets could include:
  - 2.1 Prime movers
  - 2.2 Distribution systems
  - 2.3 Transmission system and components

and may include:

  - 2.4 Work within confined spaces
  - 2.5 Working in hazardous areas.
  - 2.6 Working at height/over water.
  
- 3 The type and complexity of adjustments to be made could include:
  - 3.1 Pressure control
  - 3.2 Temperature control
  - 3.3 Speed control
  - 3.4 Humidity control
  - 3.5 Flow control

Examples of complexity include:

  - 3.6 Direct adjustment to system component
  - 3.7 Adjustment via control loop
  - 3.8 Adjustment via external control system.
  
- 4 The quality standards and accuracy to be achieved are as set down in the work specifications.

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#### 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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**Developed by** Cogent

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**Status** Tailored

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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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