## Carry out planned maintenance procedures on mechanical process plant and equipment



### **Overview**

This unit is about your competence in maintaining mechanical equipment in line with the manufacturer's and organisational practices and procedures. You will be required to complete the maintenance procedures in a timely manner, follow procedures 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:

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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 M2.1 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 5.01.

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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 relevant maintenance schedules to carry out the required work
- P3 carry out the maintenance activities within the limits of your personal authority
- P4 carry out the maintenance activities in the specified sequence and in an agreed time scale
- P5 report any instances where the maintenance activities cannot be fully met or where there are identified defects outside the planned schedule
- P6 complete relevant maintenance records accurately and pass them on to the appropriate person
- P7 dispose of waste materials in accordance with safe working practices and approved procedures

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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 an appreciation of the maintenance schedules and related specifications to which you are expected to work. This could be expected to include: authorisation procedures, product worksheets, tests, internal maintenance schedules, safe working practices, methods statement, records, timescales
- K4 you must have a working knowledge of the maintenance methods and procedures
- K5 you must have an appreciation of maintenance records and documentation procedures
- K6 you must have a working knowledge of your responsibilities for the care and control of equipment that you use
- K7 you must have a working knowledge of maintenance authorisation procedures and limits of responsibility and authority in line with company and manufacturer's procedures
- K8 you must have an appreciation of the appropriate methods and waste disposal procedures in relation to legislation, regulation and procedures for waste segregation
- K9 you must have an appreciation of your responsibilities with regard to the reporting lines and procedures in your working environment

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### **Additional Information**

### Scope/range

- The level and extent of responsibility will involve you being responsible for ensuring the maintenance procedures 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 authorised signatories within the Permit to Work system
- 2 The plant or equipment to be maintained could include:
  - 2.1 Pumps
  - 2.2 Compressors
  - 2.3 Valves
  - 2.4 Process piping systems
- 3 The maintenance procedures and activities to be followed are fully defined within the company maintenance procedures. Typical procedures could include:
  - 3.1 Replenishing/checking levels of consumables
  - 3.2 Tightening of fasteners
  - 3.3 Checking tensions
  - 3.4 Lubricating
  - 3.5 Inspection for damage/wear/corrosion movement
  - 3.6 Replacement of worn/damaged/corroded components
  - 3.7 Cleaning
- The quality standards and accuracy to be achieved are as set down in QA and QC specifications

# 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 "an appreciation" is intended to indicate a level of knowledge and understanding equating to:

- An awareness of the existence, the scope and the background to the content covered by the knowledge and understanding statement
- 2 How and where to find further detail and information that you will need
- 3 Having obtained the information, you will be expected to check your interpretation and then to be able to apply it to your situation

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

- 4 Identify and apply relevant information, procedures and practices to your usual role in your expected working environments needing only occasional recourse to reference materials
- 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
- 6 Interpret and apply the information obtained to your role, your working practice and in your expected working environment

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