

COGPEM42 - SQA Unit Code FP7A 04

Read and extract information from mechanical engineering drawings and specifications



Overview

This unit is about your competence in extracting information from technical drawings and publications prior to starting mechanical maintenance work.

This unit deals with the following:

- 1 Read and extract information from mechanical engineering drawings and specifications

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:

This unit is a contextualised version of a unit produced by the OSC Eng Engineering Competence Standards which was Originally Designated ECS 1.13.

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Performance criteria

You must be able to:

- P1 use the approved source to obtain the required drawings and specifications
- P2 correctly interpret the drawings and specifications
- P3 identify, extract and interpret the required information
- P4 use the information obtained to ensure that work output meets the specification
- P5 deal promptly and effectively with any problems within your control and report those which cannot be solved
- P6 report any inaccuracies or discrepancies in drawings and specification

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Knowledge and understanding

You need to know and understand:

- K1 you must have a working knowledge and understanding of the information and documentation systems that relate to the maintenance of plant and equipment
- K2 you must have a working knowledge and understanding of the currently used types of engineering drawing and specifications. This could include: schematic diagrams, as-built drawings, manufacturers' specifications, processing and instrumentation diagrams (P&ID's)
- K3 you must have a working knowledge and understanding of the conventions, symbols and abbreviations used within your company. This could include: British Standard, Codes of Practice, International Standards, company specification
- K4 you must have a working knowledge and understanding of the sources of information available to you.
- K5 you must have a working knowledge and understanding of the identification and selection of data. This should ensure that the data is current and relevant to the location
- K6 you must have a working knowledge and understanding of the document care and control procedures that are specified by the company
- K7 you must have a working knowledge and understanding of your responsibilities with regard to the reporting lines and procedures in your working environment

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Additional Information

Scope/range related to performance criteria

- 1 The level and extent of responsibility you have for ensuring the information is sourced from the latest version on the drawings and specifications.
- 2 The type and complexity of drawings and specifications could be:
 - 2.1 Pneumatic schematics
 - 2.2 Hydraulic Schematics
- 3 The information to be extracted will relate to the maintenance and repair of plant and equipment normally used within the oil and gas, chemicals manufacturing and petroleum industries.

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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Suite Process Engineering Maintenance

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