



**Australian Government**

# **PMAOPS204 Select and use utilities and services**

**Release: 1**

# PMAOPS204 Select and use utilities and services

## Modification History

Release 1. Supersedes and is equivalent to PMAOPS204B Use utilities and services

## Application

This unit of competency covers skills and knowledge required to select and use a range of utilities and services in the plant.

This unit of competency applies to operators who are required to select the appropriate utility/service from those provided to the plant and recognise and respond to operational problems.

This unit of competency applies to an individual who may work alone although under routine direction and supervision. They may work as part of a team or group and will work in liaison with other shift team members and the control room operator, as appropriate.

In a typical scenario an operator will be able to identify and select utilities and services used on a day-to-day basis. These will be provided to a process plant and will consist of instrument and plant air, nitrogen, plant water, steam, flushing oil and other utilities/services required for a particular process. The operator uses these utilities/services as required. The correct use and application of these substances is essential to plant and operator safety and the continued performance of the process.

This unit of competency applies to any/all service utilities which form part of the utility system for the plant, typically:

- steam (saturated and superheated)
- air (process, instrument and breathable)
- water (cooling, boiler feed, plant and waste)
- inert atmosphere (nitrogen and carbon dioxide)
- flushing oil.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Operations

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |  |
|---|--|-----|--|
| 1 | <b>Prepare for work</b>                      | 1.1 | Identify work requirements   |
|   |  | 1.2 | Identify and control hazards   |
|   |  | 1.3 | Coordinate with appropriate personnel  |
| 2 | <b>Select and use utilities and services</b> | 2.1 | Identify utilities and services available in the plant   |
|   |  | 2.2 | Identify key properties, applications and limitations of each utility and service  |
|   |  | 2.3 | Select appropriate utility/service for the required duty   |
|   |  | 2.4 | Use selected utility/service to procedures   |
| 3 | <b>Respond to problems</b>                   | 3.1 | Monitor use of utility/service frequently and critically throughout shift using measured/indicated data and smell, sight, sound and feel as appropriate. |
|   |  | 3.2 | Recognise operational problems   |
|   |  | 3.3 | Analyse cause of operational problems within scope of skill level  |
|   |  | 3.4 | Take action to remedy operational problems in accordance with procedures   |

### Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

All operations to which this unit applies are subject to stringent health, safety and environment (HSE) requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

**Service utilities** Service utilities include one or more of the following:

- steam (saturated and superheated)
- air (process, instrument and breathable)
- water (cooling, boiler feed, plant and waste)
- inert atmosphere (nitrogen and carbon dioxide)
- flushing oil

**Routine problems** Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of the following:

- non-supply of products and elements
- variation in product and element feed rates
- variations in temperature, pressure and flow
- blockages or leakage

Known solutions are drawn from one or more of the following:

- procedures
- training

- remembered experience

Non-routine problems must be reported according to according to relevant procedures.

**Operate** Operate is to monitor, adjust/change the plant item/unit/system to meet specifications, by one or more of the following:

- manually in the plant
- using local controller in the plant
- using the process control system in the control room

**Action** Action in accordance with procedures includes the following:

- determining problems needing action
- determining possible fault causes
- rectifying problem using appropriate solution within area of responsibility
- following through items initiated until final resolution has occurred
- reporting problems outside area of responsibility to designated person

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Hazards** Hazards include one or more of the following:

- smoke, darkness and heat
- dust or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards

- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- plant services (steam, condensate and cooling water)
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours or other atmospheric hazards
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

## Unit Mapping Information

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## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>