



Australian Government

PMAOPS230 Monitor, operate and maintain pipeline stations and equipment

Release: 1

PMAOPS230 Monitor, operate and maintain pipeline stations and equipment

Modification History

Release 1. Supersedes and is equivalent to PMAOPS230B Monitor, operate and maintain pipeline stations and equipment

Application

This unit of competency covers the skills and knowledge required to operate and maintain pipeline stations and equipment where the pipeline is covered by the *AS 2885 Pipelines - Gas and liquid petroleum* suite of standards. *AS 2885 Pipelines - Gas and liquid petroleum* (and its related standards) should be consulted for detail.

This unit of competency applies to operators who are required to start up and shut down the equipment, monitor its performance and the need for maintenance, identify problems and take appropriate action, and maintain records.

The unit of competency applies to pipeline stations, such as:

- maintenance bases
- compressor stations
- scraper stations
- inlet and delivery stations
- mainline block valve sites.

This unit of competency applies to an individual who may work alone although under the routine direction and supervision of a person who is competent to undertake the complete operation of the plant/plant area. 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.

This unit of competency does not require the operation of a central control panel but may be applied to a pipeline control centre.

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 | Prepare for work | 1.1 | Receive and give shift handover |
| | | 1.2 | Identify work requirements |
| | | 1.3 | Identify and control hazards |
| | | 1.4 | Coordinate with appropriate personnel |
| | | 1.5 | Check for recent work undertaken on pipeline |
| | | 1.6 | Note any outstanding/incomplete work |
| | | 1.7 | Check operational status of pipeline and its components |
| | | | |
| 2 | Plan and organise for activities | 2.1 | Obtain tools, equipment and testing devices needed to carry out the work and check for correct operation and safety |
| | | 2.2 | Check operational area to ensure that hazards are controlled |
| | | 2.3 | Conduct required safety checks and pre-start checks of the equipment |
| | | 2.4 | Determine status of the system through communication with relevant personnel prior to commencing start-up |
| | | | |
| 3 | Start up/shut down the system | 3.1 | Start up the system in accordance with procedures |
| | | 3.2 | Shut down in accordance with procedures and conditions |
| | | 3.3 | Apply emergency shutdown procedures when appropriate |
| | | 3.4 | Maintain records/reports to procedures |
| | | | |
| 4 | Monitor the | 4.1 | Monitor operating conditions of equipment through |

	system	condition monitoring systems, gauge levels, temperatures and flow indicators in order to determine performance of equipment and system
		4.2 Adjust systems for the most efficient operation
		4.3 Identify equipment faults through inspection and testing of the operational equipment
		4.4 Take appropriate action
		4.5 Communicate pipeline system information to relevant personnel
		4.6 Select and apply emergency response when required
5	Isolate and de-isolate pipeline or components	5.1 Isolate pipeline and components
		5.2 Make safe for required work
		5.3 Check pipeline/component is ready to be returned to service
		5.4 De-isolate pipeline/component
		5.5 Prepare plant for return to service
6	Record and report results	6.1 Document and record maintenance results to procedures
		6.2 Notify work completion to procedures
		6.3 Cancel where appropriate permit to work and sign-off at completion of repair

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

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:

- 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, smoke, dusts, 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

Routine problems

Routine problems must be resolved by applying known solutions.

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

- gas/product leaks
- incorrect valve positions
- electrical problems
- compressor or pump failure
- out of current inspection status
- gauge failure or hose rupture, leaks
- instruments out of calibration
- instruments and equipment requiring cleaning

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.

Appropriate action

Appropriate action 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

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

Start up/shut down as required Start up/shut down as required includes the following:

- start up and shut down to/from normal operating conditions
- start up and shut down to/from isolated, cold or empty
- start up and shut down to/from other conditions/situations experienced on the pipeline

Pipeline station and equipment This unit of competency includes all items of equipment and unit operations which form part of the pipeline system, including, as relevant to a particular pipeline, one or more of the following:

- compressor systems and equipment, including monitoring systems, anti surge systems, safety systems and compressor control systems
- prime movers, including turbine engines, reciprocating engines and electric motors
- instrument and control systems
- valve systems

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMAOPS230B Monitor, operate and maintain pipeline stations and equipment

Links

Companion Volume implementation guides are found in VETNet -

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