PMAOPS330 Communicate and monitor pipeline activities

Release: 1

PMAOPS330 Communicate and monitor pipeline activities

Modification History

Release 1. Supersedes and is equivalent to PMAOPS330B Communicate and monitor pipeline activities

Application

This unit of competency covers the skills and knowledge required to gather and relay information about pipeline activities from the pipeline control centre.

This unit of competency includes all such items of equipment and unit operations which form part of the pipeline control system, including as appropriate to the facility:

- radio communications equipment, email, fax and telephones
- heaters, furnaces and exchangers
- station instrumentation/metering equipment
- condition monitoring equipment
- process control equipment
- gas quality and analysis equipment
- valves, actuators and flanges
- piping systems
- pressure vessels/filtration equipment
- compressors and prime movers
- cathodic protection systems.

This unit of competency applies to operations technicians who are required to demonstrate a significant understanding of pipeline operations in order to monitor flows, pressures and temperatures in the field; direct field operators to check and maintain pipeline operations; and communicate with field personnel, suppliers and customers to maintain the safe and efficient operation of the pipeline.

This unit of competency applies to an individual operating independently in a plant with local control or in liaison with the control room operator in a plant with a centralised control panel, such as distributed control system (DCS) type controls. In the case of large complex plant, the operations technician would be part of a team during start-up and shutdown procedures.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate They may also be communicating with customers.

This unit of competency reflects relevant aspects of the Australian Standard *AS 2885.3-2012 Pipelines - Gas and liquid petroleum - Operation and maintenance*.

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	**Gather information about pipeline operation needs**	1.1 Respond to and record messages and information received from field operations and pipeline system stations
		1.2 Interpret and acknowledge alarm codes correctly to ensure the correct response strategy is selected and applied to the situation
		1.3 Clarify additional information needs and select an appropriate communication medium to deliver the information required
		1.4 Improve operational efficiency through adequate and timely application of information provided
		1.5 Interpret and action customer/shipper gas forecasts to ensure correct gas flow rates into the pipeline system are achieved
2	**Communicate pipeline information**	2.1 Monitor activities of pipeline personnel in the field and data from the control centre
		2.2 Evaluate internal messages and response communications concerning system alarms/incidents to establish the scope and severity of the alarm/ incident
		2.3 Convey pipeline system operation information to relevant personnel in other work areas to ensure safe and efficient operation of the pipeline system
		2.4 Relay information to technicians and other services/parties so that fault-finding or safety checks can

		be conducted to identify risks to product supply, pipeline equipment, environment and personnel
	2.5	Authorise, record and monitor permits to work to allow operational activities to be undertaken or cancelled
3	**Coordinate pipeline systems operations**	3.1	Monitor field and pipeline station operations data

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		3.2	Monitor and observe equipment operating conditions, pressures and temperatures, and maintain correct equipment operating parameters
		3.3	Identify faults and initiate the required repair or reporting of the fault
		3.4	Isolate identified faults in the pipeline as appropriate
		3.5	Respond to system alarms and emergencies
		3.6	Determine the required course of action or emergency response to the identified system condition/ emergency
		3.7	Complete and document pre-shutdown checks
		3.8	Shut down the pipeline system under either normal or emergency conditions in accordance with operating procedures
		3.9	Confirm all identified maintenance is in compliance with the permit to work system and administer to ensure that all work complies with all issued permits
4	**Record and report**	4.1	Record and monitor field personnel movements to ensure the safety of all personnel in the field
		4.2	Report safety and environmental risks or faulty equipment to designated personnel for further action or advice concerning the selection of the appropriate response or course of action
		4.3	Interpret and maintain field inspection records and reports
		4.4	Complete operations and production reports
		4.5	Perform shift handover procedures

5	**Control hazards**	5.1	Identify hazards in work area
		5.2	Assess the risks arising from those hazards
		5.3	Implement measures to control those risks in line with procedures and duty of care

6	**Resolve problems**	6.1	Identify possible problems in equipment or process
		6.2	Determine problems needing action
		6.3	Determine possible fault causes
		6.4	Rectify problem using appropriate solution within area of responsibility
		6.5	Follow up items initiated until final resolution has occurred
		6.6	Report problems outside area of responsibility to designated person

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.

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)
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- 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 are predictable, will have solutions in the procedures and include one or more of:

- communications disruptions
- corrosion/hydrate formation
- variations in flow temperature and/or pressure
- failures of piping, valves or flanges
- pipeline leakages

Non-routine   Non-routine problems are unexpected problems, or variations of previous

problems   problems and must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts, to:

- determine problems needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution
- follow through items initiated until final resolution has occurred
- report problems outside area of responsibility to designated person

Operational knowledge includes one or more of the following:

- procedures
- training
- technical information such as journals, engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people

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

Procedures are written, verbal, visual, computer-based or in some other form, 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

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

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