



Australian Government

PMAOPS236 Monitor continuous process plant

Release: 1

PMAOPS236 Monitor continuous process plant

Modification History

Release 1. New unit

Application

This unit of competency covers the skills and knowledge required to monitor continuous process plant as part of an operational team.

The operator will be required to identify requirements for the shift, monitor a plant/plant area, log and interpret readings and observations, take specified actions under identified circumstances, and complete documentation.

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.

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.

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| 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 plant item |

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| | | 1.6 | Note any outstanding/incomplete work |
| | | 1.7 | Check operational status of plant and equipment in work area |
| 2 | Monitor plant in work area | 2.1 | Identify the type and duty of plant item |
| | | 2.2 | Complete routine checks |
| | | 2.3 | Monitor plant item and plant area frequently and critically throughout shift using measured/indicated data and senses as appropriate |
| | | 2.4 | Complete logs and paperwork |
| | | 2.5 | Identify impacts on the plant of any changes upstream and downstream of the plant |
| | | 2.6 | Identify upstream and downstream impacts of any changes on the plant |
| 3 | Take action in accordance with procedures | 3.1 | Communicate observations |
| | | 3.2 | Recognise situations which may require action |
| | | 3.3 | Make required adjustments to plant/process appropriate to the type of plant and its duty |
| | | 3.4 | Resolve routine problems |
| | | 3.5 | Take appropriate actions on other abnormal situations to make safe and have the situation resolved |

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:

- organisation procedures relevant to data systems, data security, record keeping, privacy, internet usage and intellectual property (IP)
- manufacturers' manuals
- 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 organisation

Identifying hazards Hazards include one or more of the following:

- plant services (steam, condensate and cooling water)

- slip/trip hazards
- PPE is unavailable and/or not functional
- electricity
- gas
- gases and liquids under pressure
- unsafe equipment and hazard controls not functional
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- limited head spaces or overhangs
- fire and explosion
- flammability and explosivity
- hazardous products and materials
- 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:

- readings being out of range
- unusual observation on plant
- change in weather
- process upset

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

- procedures
- training
- remembered experience

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

Unit Mapping Information

Release 1. New unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for PMAOPS236 Monitor continuous process plant

Modification History

Release 1. New unit

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and demonstrate the ability to:

- give and receive an appropriate shift handover each shift
- complete checks and logs at the frequency required for the plant
- monitor the plant and process in the work area
- communicate plant/process information when required
- respond in a timely fashion to the changing needs of the plant/plant area.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- hazards and hazard controls specific to the plant and work area
- principles of operation of plant items within the work area:
 - science (physics/chemistry/biology) relevant to plant/ process
 - function of plant major components
 - types and duties of plant
 - process parameters and limits (e.g. temperature, pressure, flow and pH)
 - effects of variations in process conditions and materials
- relevant alarms and actions
- types and causes of known problems for the plant area and its components
- corrective action appropriate to the identified problem cause.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
 - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant
 - will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency

- must use an appropriate industrial item of equipment requiring demonstration of monitoring and responding to problems
- may use industry-based simulation for **part only** of the unit (typically problem solving) where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
 - walk-throughs
 - pilot plant operation
 - demonstration of skills
 - industry-based case studies/scenarios and/or 'what ifs'.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition the assessor or anyone acting in subject matter expert role in assessment shall demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they shall assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
 - relevant VET or other qualification/Statement of Attainment
 - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
 - appropriate workplace experience supervising/ evaluating the type of work being assessed under routine and non-routine conditions
- Currency can be demonstrated through one or more of:
 - being currently employed undertaking the type of work being assessed

- being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation's policies and procedures
- having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
- conducting on-the-job training/assessments of the type of work being assessed
- being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work.

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