



Australian Government

PMASUP432 Coordinate pipeline projects

Release: 1

PMASUP432 Coordinate pipeline projects

Modification History

Release 1. Supersedes and is equivalent to PMASUP432B Coordinate pipeline projects

Application

This unit of competency covers the skills and knowledge required to scope and coordinate pipeline projects. It applies to pipeline projects, such as:

- installation of new plant piping and equipment
- pipeline repairs and modifications (e.g. hot tap and stoppling operations, welding and cutting operations)
- upgrades of existing plant, piping and equipment
- commissioning of pipelines and facilities
- construction and upgrade of pipeline easements.

This unit of competency applies to operators who are required to prepare scoping documents, specifications and/or tenders; coordinate the project through the construction and commissioning phases; prepare reports; liaise with stakeholders; and ensure that the project conforms to all safety requirements.

This unit of competency does not require the operation of a central control panel.

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

Pre-requisite Unit

MSMPER300 Issue work permits

Competency Field

Support

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 project specification documents | 1.1 | Analyse the proposed project to establish contract specifications |
| | | 1.2 | Facilitate a documented hazard and risk assessment on the proposed project, identifying all potential hazards and risks |
| | | 1.3 | Draft specification documents stating the required work activity and health, safety and environmental requirements |
| | | 1.4 | Seek tenders for the specified works, review according to the relevant company procedure and appoint a winning tenderer |
| 2 | Prepare project schedule and documentation | 2.1 | Draft a project schedule to establish project timeframe, work activities and procurement of materials |
| | | 2.2 | Apply the job safety analysis (JSA) process to specific project activities reflecting any health, safety and environmental (HSE) issues identified in the project risk and hazard assessment |
| | | 2.3 | Write procedures and work instructions for project work activities from the outcome of the JSA process |
| 3 | Facilitate induction training for project | 3.1 | Discuss company/site-specific procedures and HSE requirements with contractors/employees carrying out the specified works |
| | | 3.2 | Review all persons who are inducted to ensure they understand the company/site procedures and HSE requirements |
| | | 3.3 | Inspect all equipment and machinery utilised to carry out the works to ensure these comply with company/site requirements |
| 4 | Monitor progress of project | 4.1 | Purchase materials required for fabrication and installation on the project and inspect to ensure all items meet project specifications |
| | | 4.2 | Monitor project works to ensure activities are carried out to project specification and minimal impact occurs on |

		existing operations and environment
	4.3	Issue permits to work where project activities impact on existing pipeline operations
	4.4	Amend and/or modify original specifications and communicate to all parties involved according to the relevant company procedure
	4.5	Produce project reports updating project schedule progress, activities and HSE issues, and discuss with all parties involved.
	4.6	Draft operations manuals and compile vendor data manuals to assist in the operation of the equipment/facility after project completion
5	Complete and commission project	
	5.1	Commission the project to ensure all work carried out meets project specifications and operational requirements
	5.2	Restore the project site to meet environmental, heritage and operational requirements
	5.3	Cancel permits to work and sign-off at completion of works
	5.4	Check all documentation, records and drawings pertaining to the project, verify for accuracy and hand over to the relevant operational department

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:

- *AS 2885 (Set) Pipelines - Gas and liquid petroleum*
- *AS 4041-2006 Pressure piping*
- *AS/NZS 3000:2007 Electrical installations (known as the Australian/New Zealand Wiring Rules)*
- 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
- requirements set by authorities, such as:
 - Environmental Protection Authority (EPA)
 - Department of Primary Industry and Energy (DOPIE)
 - Departments of Minerals and Energy State and Territory
 - Worksafe Australia.

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)
- limited head spaces or overhangs
- 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

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

Sources of information Sources of information include, as appropriate to the project:

- regulatory framework
- procedures
- internal stakeholders
- pipeline alignment drawings
- process and instrument drawings
- workshop fabrication drawings

Inspection and testing Inspection and testing techniques include, as appropriate to the project:

- hydrostatic testing
- magnetic particle inspection
- radiography
- ultrasonic inspection
- dye penetrant inspection

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>

Assessment Requirements for PMASUP432 Coordinate pipeline projects

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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 include the ability to:

- interpret information from a range of sources to determine project specifications, including scope of health, safety and environmental (HSE) requirements, schedules and resource requirements
- coordinate and monitor project activities
- identify hazards and risks and apply risk control procedures
- convey information relevant to the operation clearly and effectively to contractors, employees and other stakeholders
- complete written and/or electronic documentation for the project, including:
 - budget updates
 - project schedule progress report
 - materials and spares listings
 - safety statistics report
 - hazard and incident reports
 - procedures/work instructions
- interpret plans and drawings.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- architecture of pipeline systems and facilities
- pipeline operations knowledge
- pipeline system operating parameters
- quality assurance systems and plans
- emergency response plans and procedures
- preparation and submission of safety cases
- pipeline licenses
- environmental statutes and standards
- project contract and budget management techniques
- regulatory framework
- organisation procedures, including those covering:
 - safety, emergency and hazard control

- policy/procedure development
- permit system
- procurement
- project management
- duty of care obligations
- hierarchy of control.

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 is best done from a report and/or folio of evidence drawn from:
 - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
 - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace. Where this is not possible or practical, assessment must occur using 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.
- Knowledge evidence may be collected concurrently with performance evidence 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.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- 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 must demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they must 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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