



Australian Government

Assessment Requirements for MEM234026

Develop and coordinate engineering-related contingency plans

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM234026A Develop and coordinate engineering-related contingency plans.

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:

- identifying and establishing contingency risks and significance including relevant engineering, production and financial calculations and analysis for the project or operation
- establishing resources required including labour, materials, and equipment within budgets and procedures
- evaluating solutions for feasibility against engineering design or specification criteria including relevant engineering calculations and analysis
- using and validating performance analysis, modelling and simulation software for contingency-related analysis
- establishing support team and responsibilities on at least two occasions
- overcoming constraints to achievement of schedules and budgets as contained in contingency plan on at least two occasions
- communicating, negotiating and reviewing with stakeholders and client throughout process to obtain agreement on proposal and sign-off on plan
- generating standard procedures to ensure plan is maintained and updated.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- context of operations or project including competitive pressures or markets, customer-supplier relationships, regulatory and industrial environment, resourcing and labour issues
- major incidents or non-conformances
- engineering-related modelling and simulation software including underpinning program and software validation techniques
- action plan resources
- budget and control measures for project or operations management from the financial business plan

- physical resources for project or operations
- human resources and requirements for engineering-related projects
- recording and implementation requirements for engineering projects or operations including schedules, budgets, personnel and resource allocations, and standard operating and maintenance procedures
- tendering and contracts requirements and processes including agreement on engineering design and technical specification, negotiations and optimisations, provisions for variations, delays and penalties
- requirements for, and functions of, technical documentation, graphics and specifications, and records of meetings, communications, negotiations, decisions and agreements with stakeholders
- systems thinking, contingency and constraint management
- typical management accounting processes which can relate to an engineering project or operation including:
 - cash flow and liquidity
 - assets and liabilities
 - costing and break-even analysis
 - financial record keeping procedures for expenditures
- typical legal requirements for engineering-related projects or operations
- work health and safety (WHS) requirements, codes of practice, regulations, standards, regulatory requirements for project or operations, current safe work method statements (SWMS), safety data sheets (SDS) and work permits
- work organisation and management theory
- conflict resolution, problem-solving and decision-making.

Assessment Conditions

- Assessors must:
 - have vocational competency in developing and coordinating engineering-related contingency plans at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015 or its replacement* and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible assessment must 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 that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.

- 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.
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Links

Companion Volume Implementation Guides are available on VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>