



Australian Government

PMASUP520 Review procedures to minimise environmental impact of process

Release: 1

PMASUP520 Review procedures to minimise environmental impact of process

Modification History

Release 1. Supersedes and is equivalent to PMASUP520B Review procedures to minimise environmental impact of process

Application

This unit of competency covers the skills and knowledge required to establish and review procedures to minimise the environmental impact of a process and/or plant using a proactive environmental management approach. Proactive environmental management goes beyond complying with environmental requirements and integrates environmental goals with core business objectives.

This unit of competency applies to senior technicians, paraprofessionals or those in similar roles who are required to apply in-depth knowledge of process and plant in order to develop, implement and review procedures that will conserve resources and minimise pollution and waste, and ensure that the procedures are supported by appropriate training and record keeping.

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

Pre-requisite Unit

Nil

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.

1 **Develop procedures for environmental management**

1.1 Develop workplace procedures of proactive environmental management which include resource conservation, pollution and waste minimisation

1.2 Determine primary source of respective aspects

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| | | 1.3 | Determine the negative impact of these aspects on the environment and the society if they are mismanaged |
| | | 1.4 | Prioritise management options according to the greatest benefit to environment and the society |
| | | 1.5 | Develop management procedures |
| | | 1.6 | Complete required documentation to implement change |
| 2 | Review procedures for environmental management | 2.1 | Review the procedures on a regular basis by consulting relevant work groups for feedback |
| | | 2.2 | Incorporate relevant feedback into the revised procedures in consultation with the relevant personnel |
| | | 2.3 | Inform relevant work groups of any changes and implement changes in the procedures |
| 3 | Implement and review an environmental management training program | 3.1 | Identify the workplace environmental management training program |
| | | 3.2 | Review the program on a regular basis by consulting relevant work groups for feedback |
| | | 3.3 | Incorporate relevant feedback into the revised program in consultation with the relevant personnel |
| | | 3.4 | Inform relevant work groups of any changes and implement changes in the training program |
| 4 | Implement and review environmental management recording system | 4.1 | Identify the workplace environmental management recording system |
| | | 4.2 | Review the system on a regular basis by consulting relevant work groups for feedback |
| | | 4.3 | Incorporate relevant feedback into the revised system in consultation with the relevant personnel |
| | | 4.4 | Inform relevant work groups of any changes and implement changes in the management of environmental records |

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, 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

Stakeholders Stakeholders include one or more of the following:

- organisation management and operational staff
- suppliers
- contractors
- others acting on the organisation's behalf
- customers

Sources of information Sources of information include one or more of the following:

- organisation goals, commitments and procedures (e.g. business/strategic plans, voluntary environmental agreements entered into with external organisations/authorities, and organisation policies and procedures)
- regulatory framework
- consultation with internal stakeholders
- own knowledge and experience of plant/process
- technical/operational documentation
- schematic (e.g. piping and instrumentation diagrams (P&IDs and process flow diagrams (PFDs))

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMASUP520B Review procedures to minimise environmental impact of process

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 PMASUP520 Review procedures to minimise environmental impact of process

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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:

- analyse information from a range of sources to determine environmental aspects/interactions of plant and/or processes and potential impacts
- develop, evaluate and prioritise options for minimising impact
- develop and document procedures to implement priority options
- communicate and consult effectively with stakeholders
- review and revise relevant procedures, record keeping system and training programs to reflect amendments and feedback from stakeholders.

Knowledge Evidence

Evidence must be provided that demonstrates sufficient knowledge to interact with relevant personnel and be able to establish and review procedures to minimise the environmental impact of a process, including knowledge of:

- aspects of interaction of plant/processes with the environment and society
- the effects on the environment and society of the organisation's:
 - liquid waste
 - solid waste
 - gas/fume/vapour/smoke emissions, including fugitive emissions
 - hazardous materials
 - energy and water use
 - noise
- management strategies and workplace practices that can be used to minimise or prevent these effects, including:
 - recycling and reusing
 - reducing amount of non-renewable resources used
 - reducing volume and/or concentration/intensity of pollutants made
 - reducing emissions
 - improving housekeeping (e.g. using a broom instead of a hose, and using old rags for cleaning instead of toxic cleaners or water)

- substituting materials (e.g. replacing toxic solvent-based coatings with water-based ones)
- changing processes (e.g. mechanical cleaning, and re-design of products/procedures so that materials are used more efficiently)
- tenders for the provision of goods and services that specify environmentally preferred selection criteria
- nature and severity of the effect the pollutants and waste materials can have on the environment and society
- types of local conditions that can make environmental threats more ‘sensitive’
- pathways of entry to the environment from the plant
- systems operating parameters
- system integrity limits
- process control philosophies and strategies
- product specifications and tolerances
- principles of operation of plant/equipment
- science (e.g. physics, chemistry and biochemistry) relevant to process and materials
- organisation procedures, including those covering:
 - environmental management
 - safety, emergency and hazard control
 - procurement
- 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.
- It is not necessary for the recommended improvements in utility/efficiency to be complete for the purposes of this unit.
- 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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