



**Australian Government**

# **MSS50112 Diploma of Sustainable Operations**

**Release 2**

## **MSS50112 Diploma of Sustainable Operations**

### **Modification History**

Release 2 - Inclusion of 1 new elective in Group B and 1 new elective in Group C

## Description

This qualification provides the skills and knowledge required to work in a technical, supervisory or operational role in sustainability in an organisation and/or its value chain (e.g. suppliers of goods or services, or customers). The qualification has been developed with manufacturing operations as a focus. However, because of the range of organisations in a typical manufacturing value chain it may also be applied to other types of organisations. The qualification packaging has been developed on an assumption that competency will be developed through a combination of on and off-the-job learning strategies.

### Job roles/employment outcomes

The MSS50112 Diploma of Sustainability specifies the competencies required for employment in job roles related to assisting organisations to improve sustainability and to meet their obligations under sustainability related regulatory arrangements, government or similar incentives, or other initiatives that apply to their operations.

Employment outcomes related to this qualification may include specialist roles, such as a sustainability manager, or the qualification can provide specialist sustainability competencies to technical, supervisory or operational employees.

### Application

This qualification provides sustainability skills that can be applied inside an organisation and its value chain. Examples include:

- manufacturing enterprises
- organisations in a value chain, such as:
  - suppliers
  - customers
  - distributors, warehouses, transport suppliers and other logistics support organisations
  - professional service suppliers to manufacturing, for example, legal, engineering, accounting and auditing suppliers
- sustainability consulting enterprises.
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## Pathways Information

### Pathways into the qualification

This qualification has no formal entry requirement due to the wide variety of sustainability applications in industry. However, most enterprises will expect technical skills relevant to their operations or equivalent vocational experience and for this reason the qualification is unlikely to be suitable for direct entry from school.

### Pathways from the qualification

Further training pathways from this qualification include the MSS70111 Vocational Graduate Certificate in Sustainable Operations.

### Additional qualification advice

This qualification provides the skills needed to measure current sustainability performance and to establish processes for improved sustainability performance within organisations. It complements but does not duplicate qualifications supplying technical skills related to engineering, chemical, environmental and other technical analyses that may be needed for improving sustainability. Where these skills are required appropriate qualifications from other Training Packages, such as the MEM05 Metal and Engineering, PMA08 Chemical, Hydrocarbons and Refining and MSA07 Manufacturing Training Packages, should be considered.

## **Licensing/Regulatory Information**

There are no specific licences that relate to this qualification.

## **Entry Requirements**

Not applicable.

## Employability Skills Summary

The following table contains a summary of the employability skills as identified by industry for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that reflect skill requirements for this level.

| Employability Skill    | Industry/enterprise requirements for this qualification include:   |
|------------------------|--|
| <b>Communication</b>   | <ul style="list-style-type: none"> <li>• Manage implementation sustainability improvement procedures and develop and distribute related information</li> <li>• Develop standardised documentation on behalf of an area or group of work teams</li> <li>• Share and discuss information with others about enterprise activities</li> <li>• Develop and communicate workplace procedures</li> <li>• Provide information and clarifications to team leaders and other employees on workplace procedures in relation to sustainability</li> <li>• Provide and interpret instructions, specifications, standard operating procedures and other work-related documents</li> <li>• Provide assistance or information to relevant personnel</li> <li>• Debrief on workplace changes with relevant stakeholders</li> <li>• Record production, emissions and other work-related information</li> <li>• Access and use workplace communication tools and equipment</li> <li>• Apply numeracy skills to work procedures</li> <li>• Provide information about team activities to managers, supervisors and customers</li> </ul> |
| <b>Teamwork</b>        | <ul style="list-style-type: none"> <li>• Identify roles of work teams where teamwork is used as the form of work organisation</li> <li>• Supervise and lead others in a production environment</li> <li>• Share work-related information with peers, including team members, supervisors and management</li> <li>• Identify hazards to employees and visitors</li> <li>• Identify the value chain and advise other employees as to how they can contribute to the final quality of the product</li> <li>• Review changes to work practices and work relationships with team leaders and other employees</li> <li>• Provide assistance with planning work operations as required</li> <li>• Seek assistance with work operations from specialists and other employees as required</li> <li>• Participate in multidisciplinary teams as required</li> </ul>  |
| <b>Problem solving</b> | <ul style="list-style-type: none"> <li>• Monitor production and maintenance activities</li> <li>• Analyse inconsistencies, non-compliances, faults or hazards</li> <li>• Identify factors within work area that are a constraint to work</li> </ul>  |

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|                                  | <p>efficiency or reaching of production outcomes</p> <ul style="list-style-type: none"> <li>• Identify essential and non-essential practices</li> <li>• Implement methods of increasing features/benefits of products or processes</li> <li>• Monitor responsibilities of teams and make improvements to work organisation</li> <li>• Identify process steps which cause a problem and implement improvement processes</li> <li>• Monitor sustainability performance and implement improvement processes</li> <li>• Compare shift or area required performance with actual performance</li> <li>• Identify situations where compliance to specifications or safety standards is unlikely</li> <li>• Identify, recommend and implement improvements</li> <li>• Identify causes of identified faults and take appropriate action</li> <li>• Investigate causes of deviations from targets and standards in relation to sustainability</li> <li>• Undertake root cause analysis</li> </ul> |
| <b>Initiative and enterprise</b> | <ul style="list-style-type: none"> <li>• Manage procedures and systems for optimum outcomes</li> <li>• Analyse feedback on procedures and systems</li> <li>• Analyse problems, implications or suggestions for improvements</li> <li>• Adjust work activities according to changes in customer requirements</li> <li>• Identify methods of increasing contribution of work teams to sustainability</li> <li>• Identify and implement changes and improvements</li> <li>• Monitor processes and equipment to ensure cost efficiency</li> <li>• Implement and monitor work practices to reduce waste</li> <li>• Participate in multidisciplinary teams to develop new products or processes</li> </ul>  |
| <b>Planning and organising</b>   | <ul style="list-style-type: none"> <li>• Ensure work areas comply with sustainability obligations and requirements</li> <li>• Identify and manage processes, tools and materials</li> <li>• Implement improvements in accordance with procedures</li> <li>• Distinguish between essential and non-essential practices</li> <li>• Implement use of planning tools within work of teams</li> <li>• Determine and prioritise required actions</li> <li>• Collect, organise and analyse information from work activities</li> <li>• Monitor work activities according to safety and workplace standards</li> <li>• Set production targets and outcomes</li> <li>• Interpret data and information as required by own job</li> </ul>  |

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|------------------------|--|
|                        | <ul style="list-style-type: none"> <li>• Ask questions to ensure there is understanding of work requirements in teams and among other employees</li> </ul>   |
| <b>Self-management</b> | <ul style="list-style-type: none"> <li>• Recommend methods of increasing own contribution to the value chain</li> <li>• Adjust work processes according to procedures and customer requirements</li> <li>• Identify and manage impact of change in own work</li> <li>• Minimise waste in own work activity</li> <li>• Assess own work performance</li> <li>• Set personal objectives for work performance</li> <li>• Manage own time</li> </ul>  |
| <b>Learning</b>        | <ul style="list-style-type: none"> <li>• Identify skill requirements of self and team members</li> <li>• Arrange skill development training for self and others</li> <li>• Adapt to changing work requirements</li> <li>• Ask questions to aid learning of others</li> <li>• Identify personal skill gaps and additional skill needs</li> <li>• Ask questions to ensure understanding of own work requirements</li> <li>• Monitor own work and identify areas for improvement</li> <li>• Seek feedback on work performance</li> <li>• Provide feedback on work performance to team leaders and team members</li> </ul>   |
| <b>Technology</b>      | <ul style="list-style-type: none"> <li>• Monitor technology to ensure sustainability according to legislative requirements and workplace standards</li> <li>• Identify equipment and processes appropriate for jobs and skill levels of employees</li> <li>• Provide appropriate equipment to ensure safety and efficiency according to skill levels of employees</li> <li>• Assess operational efficiency of technology within own skill level and that of team members</li> <li>• Analyse data and other information from equipment reports</li> <li>• Use information technology appropriate for job</li> <li>• Manage maintenance procedures appropriate to job and processes according to skill levels of team members</li> </ul> |

## Packaging Rules

To be awarded the MSS50112 Diploma of Sustainable Operations, competency must be achieved in **twenty (20)** units of competency.

- **Five (5)** core units of competency
- **Fifteen (15)** elective units of competency, as specified below.

Note: Units with prerequisites are marked with an asterisk. Refer to the unit for details.

### Core units of competency

- Complete the following **five (5)** units of competency.

| Unit code  | Unit title   |
|------------|--|
| MSS015001A | Measure and report carbon footprint                      |
| MSS015002A | Develop strategies for more sustainable use of resources |
| MSS015007A | Develop a business case for sustainability improvements  |
| MSS015008A | Develop strategic sustainability plans                   |
| MSS015009A | Implement sustainability plans                           |

### Elective units of competency

- Complete **fifteen (15)** units of competency, made up of:
  - a minimum of **seven (7)** units from Group A
  - a minimum of **three (3)** units from Group B
  - the balance of units, to a maximum of **five (5)**, may be selected from:
    - Group A or B units, not previously selected
    - Group C elective units, listed below.

| Unit code  | Unit title  | Prerequisites |
|------------|---|---------------|
| MSS014001A | Improve sustainability through readily implementable change |               |
| MSS015003A | Analyse product lifecycle for sustainability                |               |
| MSS015004A | Design sustainable product or process                       |               |
| MSS015005A | Develop required sustainability reports                     |               |
| MSS015006A | Report to Global Reporting Initiative guidelines            |               |
| MSS015010A | Conduct a sustainability water audit                        |               |



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|------------|--|--|
| MSS015011A | Conduct a sustainability energy audit  |  |
| MSS015012A | Conduct an emissions audit   |  |
| MSS015013A | Conduct a sustainability related transport audit                                       |  |
| MSS015014A | Develop response to sustainability related regulation                                  |  |
| MSS015015A | Evaluate sustainability impact of a process  |  |
| MSS015016A | Implement and monitor reengineering for sustainability                                 |  |
| MSS015017A | Develop regulated sustainability reports   |  |
| MSS015018A | Inform and educate organisation and community representatives on sustainability issues |  |
| MSS405070A | Develop and manage sustainable energy practices  |  |
| PMASUP520B | Review procedures to minimise environmental impact of process                          |  |
| PMASUP620B | Manage environmental management system   |  |

### Group B: Elective units

| Unit code  | Unit title   | Prerequisites |
|------------|--|---------------|
| MSS015019A | Establish metrics for social sustainability                              |               |
| MSS025001A | Assist with assessing site environmental indicators                      | *             |
| MSS025002A | Assess the environmental risk or impact of a project activity or process | *             |
| MSS405010A | Manage relationships with non-customer external organisations            |               |
| MSS405011A | Manage people relationships  |               |
| MSS405012A | Manage workplace learning  |               |

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|------------|--|---|
| MSS405013A | Facilitate holistic culture improvement in an organisation                               |   |
| MSS405014A | Develop a communications strategy to support operations                                  |   |
| MSS405001A | Develop competitive systems and practices for an organisation                            |   |
| MSS405002A | Analyse and map a value chain  |   |
| MSS405003A | Manage a value chain   |   |
| MSS405004A | Develop business plans in an organisation implementing competitive systems and practices |   |
| MSS404052A | Apply statistics to operational processes  |   |
| MSS405020A | Develop quick changeover procedures  |   |
| MSS405021A | Develop a Just in Time system  |   |
| MSS405031A | Undertake value analysis of a product or process costs in terms of customer requirements |   |
| MSS405032A | Analyse cost implications of maintenance strategy  |   |
| MSS405040A | Manage 5S system in an organisation  |   |
| MSS405041A | Implement improvement systems in an organisation   |   |
| MSS405050A | Determine and improve process capability   | * |
| MSS405060A | Develop the application of enterprise control systems in an organisation                 |   |
| MSS405061A | Determine and establish information collection requirements and processes                |   |
| MSS405062A | Develop a documentation control strategy for an organisation                             |   |
| MSS405075A | Facilitate the development of a new product  | * |
| MSS405081A | Develop a proactive maintenance strategy   |   |

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| MSAENV672B   | Develop workplace policy and procedures for sustainability |  |
| MSAPMOHS510A | Manage risk  |  |

### Group C: Elective units

| Unit code   | Unit title  | Prerequisites |
|---|---|---------------|
| MSS014007A  | Implement social sustainability in work practices                                   |               |
| MSS024003A  | Apply an understanding of environmental principles to a site                        |               |
| MSS403010A  | Facilitate change in an organisation implementing competitive systems and practices |               |
| MSS403001A  | Implement competitive systems and practices   |               |
| MSS402030A  | Apply cost factors to work practices  |               |
| MSS402060A  | Use planning software systems in manufacturing                                      |               |
| MSS402061A  | Use SCADA systems in operations   |               |
| MSS402080A  | Undertake root cause analysis   |               |
| MSS403023A  | Monitor a levelled pull system of operations  |               |
| MSS403051A  | Mistake proof an operational process  |               |
| MSS404053A  | Use six sigma techniques  | *             |
| MSS404060A  | Facilitate the use of planning software systems in a work area or team              |               |
| MSS404081A  | Undertake proactive maintenance analyses  |               |
| MSAPMSUP390A  | Use structured problem solving tools  |               |
| A maximum of <b>four (4)</b> elective units may be selected from this Training Package, other |   |               |

endorsed Training Packages and accredited courses, where those units are available at Diploma level. Units chosen should be relevant to the workplace and would normally be drawn from the appropriate sector Training Package, or possibly the Business Services Training Package.

## **Custom Content Section**

Not applicable.