



Australian Government

MSS014002 Evaluate sustainability impact of a work or process area

Release: 1

MSS014002 Evaluate sustainability impact of a work or process area

Modification History

Release 1. Supersedes and is equivalent to MSS014002A Evaluate sustainability impact of a work or process area.

Application

This unit of competency covers evaluating the impact on sustainability of a work or process area or a stage of production or logistics. This may be undertaken as a stand-alone evaluation or as part of an overall evaluation of an entire process or a value chain.

This unit applies inside organisations and their value chains. It typically applies to only a portion of a value chain. The unit 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 processes in non-manufacturing parts of organisations and other types of organisations.

This unit applies to establishing the overall or broad sustainability impact of processes undertaken in a work area and making recommendations for mitigating negative sustainability impacts. The unit scope includes evaluating the impact on products made, services offered, and use of sites by an organisation or manufacturing value chain member, such as a contractor. This unit covers only that portion of the value chain which is totally within the boundaries of the selected work area.

This unit applies to individuals with work area responsibilities, such as team leaders, maintenance staff, technicians and others who have some sustainability responsibility as part of their job.

Environmental sensitivities referred to in this unit are at the issue level. The technical measurement of operational performance or measurement of emissions or other environmental impact is not covered by this unit.

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

Pre-requisite Unit

Nil

Competency Field

Sustainable operations

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Evaluate the work or process area	1.1	Identify the boundaries of the process or work area to be evaluated.
		1.2	Identify all process steps within this area.
		1.3	Identify the change which occurs at each step.
		1.4	Define sustainability interactions at each step.
2	Determine sustainability issues for the work or process area	2.1	Identify sustainability goals of enterprise as they relate to the process or work area.
		2.2	Identify environmental sensitivities at each step in the process or work area.
		2.3	Identify other sustainability issues at each step in the selected portion of the value chain.
		2.4	Short-list high priority sustainability issues.
3	Analyse sustainability issues for the work or process area	3.1	Determine root cause of each short-listed sustainability issue.
		3.2	Determine possible solutions to root causes.
		3.3	Estimate resources required for solutions and alternative mitigation strategies.
		3.4	Rank possible solutions strategies by desirability.
		3.5	Recommend preferred solutions in accordance with organisational procedures and protocols.

Foundation Skills

This section describes those required skills (language, literacy and numeracy) 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.

Interactions with the environment include one or more of	• drawing physical resources from the environment • releasing materials to the environment (e.g. emissions) • drawing energy from/releasing energy to the environment.
Environmental sensitivities include one or more of	• fragile areas, rare or threatened species • heritage or cultural sensitivity issues • hazardous emissions • regulated emissions or other regulatory issues • community perceptions or other issues • other issues, such as those identified in AS/NZS ISO 14001 Environmental Management Standards (or its authorised replacement or other relevant standard).
Priority rankings include one or more of	• issues of high impact and high probability of occurrence • issues aligned to organisations strategic direction • issues related to regulatory requirements.
Determine includes one or more of	• developing solutions within the scope of skill • discussing issues with relevant experts to develop a solution • undertaking research (literature or physical) within the scope of skill to develop a solution.
Sustainability improvements include reduction in use of one or more of	• energy • water • raw materials • emissions • embedded carbon in transport, storage, rework and errors, inefficient processes and design, and general facility efficiencies.
Sustainability related issues	• current and future availability of raw materials • current and future availability of energy

- include one or more of**
- extent and type of waste generation and disposal
 - efficiency of process in terms of consumption of materials and energy regarded as in short supply or which are regarded as environmentally sensitive
 - the extent to which the production process, product and waste affects the environment
 - relationship with the local and broader community (e.g. effect of operations on aesthetic appearance, preservation of heritage, proximity to schools, religious facilities, and impact on local residents and infrastructure)
 - extent of regulatory oversight and extent and cost of compliance
 - AS/NZS ISO 14001 Environmental Management Standards (or its authorised replacement or other relevant standard)
 - consumer demand for more sustainable products and processes
 - ethical supply chain.

- Desirability ranking includes one or more of**
- direct dollar benefit/cost
 - customer benefit
 - stakeholder perception:
 - shareholders
 - employees
 - community
 - financial community
 - life cycle improvements
 - compliance with regulations
 - company sustainability strategy and strategic plans
 - company commitment to covenants and initiatives
 - availability of incentives.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS014002A Evaluate sustainability impact of a work or process area.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS014002 Evaluate sustainability impact of a work or process area

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Performance Evidence

relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one or more work or process areas, to:

- identify steps in the process and portion of manufacturing value chain
- determine ecological and sustainability impacts of processes
- determine root causes of impacts
- evaluate solution and mitigation strategies.

Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- process mapping with regard to sustainability
- process and changes which occur within the process
- environmental impacts of materials and energy used/emitted
- environmental sensitivities of all areas impacted by the work/process area (and related areas where impact spreads beyond immediate area, e.g. by loss of containment)
- root cause analysis and problem solving
- mitigation strategies as relevant to work/process area
- simple benefit/cost analyses techniques
- sustainability issues relevant to the work/process area
- standards and regulations relevant to work/process area.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be 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 where the overall sustainability impact of processes undertaken in a work area is established and recommendations for mitigating negative sustainability impacts are made in an operational workplace.
- 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.
- 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.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

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