MSS015002 Develop strategies for more sustainable use of resources

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSS015002A Develop strategies for more sustainable use of resources.

Application

This unit of competency covers identifying strategies for more sustainable uses of resources. The unit includes the identification of waste (muda) as part of a strategy for achieving better sustainability outcomes in a process as well as quantifying theoretical and actual resource (including energy) consumption.

This unit applies inside organisations and their value chains and specifically applies to the use of resources as part of an overall response to improving sustainability. 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 other types of organisations.

The unit assumes that a decision to attempt to achieve more sustainable use of resources has already been made. The unit covers the skills needed for developing a strategic approach to resource use at the organisation or value chain level.

The unit does not cover the technical skills required to implement specific initiatives that may be identified as part of the strategic plan. However, there is a requirement to present and organise data. The complexity of this requirement will vary according to the type and scale of the organisation's processes.

Where the carbon footprint (or water footprint or similar) of an enterprise or value chain is known, the unit can be applied to developing strategies for the reduction of that footprint. A manager or technical specialist who has a major responsibility for sustainability as part of a broader work role would typically undertake this, or sustainability may be their primary work responsibility.

For specific techniques covering the auditing of water, energy, emissions and transport, refer to relevant sustainability audit units.

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	**Quantify resource consumption**	1.1	Identify all significant resources used by process.
		1.2	Identify consumption measurements available for each resource.
		1.3	Determine consumption for each resource.
2	**Quantify resource loss**	2.1	Determine theoretical consumption of each resource.
		2.2	Compare theoretical consumption with actual consumption.
		2.3	Determine loss (emission) for each resource.
3	**Recommend strategies for reducing muda (waste)**	3.1	Short-list high emission process steps.
		3.2	Analyse process to identify emission steps or locations.
		3.3	Determine root cause of emission.
		3.4	Investigate methods for reducing emission.
		3.5	Develop strategies and recommendations for improvement.
4	**Prepare resources use audit report**	4.1	Identify purpose of report and key stakeholders.
		4.2	Compile data, implications and recommendations.
		4.3	Consult with stakeholders as appropriate.
		4.4	Draft and present report.

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.

Muda (waste) includes all of	- excess production and early production - delays - movement and transport - poor process design - inventory - inefficient performance of a process - making defective items - activities which do not yield any benefit to the organisation or any benefit to the organisation's customers.
Emissions include one or more of	- known or able to be physically measured emissions of gases, vapours, fumes, liquids or solids - assumed emissions through material balancing - assumed emissions through energy loss, including heat, friction and other energy conversion yield losses.
Significant resources are deemed to be significant because they include one or more of	- high volume - high value - high environmental significance - important to the product or process - covered by legislation or regulation - important to the enterprise.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS015002A Develop strategies for more sustainable use of resources.

Links

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

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