



Australian Government

MSS015010 Conduct a sustainable water use audit

Release: 1

MSS015010 Conduct a sustainable water use audit

Modification History

Release 1. Supersedes and is equivalent to MSS015010A Conduct a sustainable water use audit.

Application

This unit of competency covers conducting an audit for the specific resource of water in a manufacturing organisation, or part or all of a value chain.

This unit applies inside organisations and their value chains. 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 water use audit may be conducted to assist in regulatory compliance or as part of a strategy to improve the sustainability of operations. The emphasis in the unit is on informing decision making in regards to water use.

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. The manager or technical specialist may undertake this alone or as part of a team.

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.
<p>1 Identify all sources and uses of water in process</p>	<p>1.1 Identify and categorise by quality all sources of water external to the site.</p> <p>1.2 Identify and categorise by quality all sources of water within the site.</p> <p>1.3 Identify all uses of water by process and category.</p> <p>1.4 Identify water quality required by each process unit.</p>
<p>2 Calculate theoretical use of water</p>	<p>2.1 Calculate theoretical net use of water for each process unit.</p> <p>2.2 Calculate overall water balance for process/site.</p> <p>2.3 Evaluate the need for water consumption and water quality by process and units within the process compared to alternative processes/units.</p>
<p>3 Measure actual use of water</p>	<p>3.1 Determine actual net water use for overall process/site.</p> <p>3.2 Determine actual net water use for each process unit.</p> <p>3.3 Calculate difference between theoretical and actual water use by unit and overall.</p> <p>3.4 Identify actual water quality used by each process unit.</p>
<p>4 Develop strategies for reducing the use of water</p>	<p>4.1 Rank units by difference between theoretical and actual water use.</p> <p>4.2 Rank units by actual water use.</p> <p>4.3 Identify units using higher quality water than required.</p> <p>4.4 Develop strategies to reduce water consumption and/or use lower quality water.</p>

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| 5 | Prepare a recommendation for a water use reduction strategy | 5.1 | Consult with key stakeholders. |
| | | 5.2 | Identify strategies required to meet regulatory or similar requirements. |
| | | 5.3 | Rank strategies by benefit/cost ratio. |
| | | 5.4 | Short-list preferred water reduction strategies. |
| | | 5.5 | Prepare recommendation for improving water usage. |

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.

Sources within the site include one or more of

- water generated by process
- rain water
- other natural water sources.

Water quality categorisation includes one or more of

- deionised/highly treated (e.g. high pressure boiler feed)
- potable water
- groundwater
- waterway/reservoir
- recycled water
- grey water
- black water
- wastewater.

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>