



Australian Government

MSS015013 Conduct a sustainability related transport audit

Release: 1

MSS015013 Conduct a sustainability related transport audit

Modification History

Release 1. Supersedes and is equivalent to MSS015013A Conduct a sustainability related transport audit.

Application

This unit of competency covers conducting an audit for the specific resource of transport and to develop recommendations to improve the sustainability of transport operations.

This unit applies to organisations and their value chains (e.g. supplier of goods or services or customer) that are seeking to determine their current and desirable future use of transport resources as part of a sustainable strategy. 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 transport audit may be conducted individually or as part of a team. The need for a transport audit may be the result of an organisation's own decisions to increase the sustainability of its operations or be required for regulatory or other purposes. 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 technical measurement of operational performance or measurement of emissions or other environmental impact is not covered by this unit. 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.

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.

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|---|---|-----|---|
| 1 | Identify all transport used | 1.1 | Define boundaries of value chain or part of value chain to be analysed. |
| | | 1.2 | Identify all transport to a site. |
| | | 1.3 | Identify all transport within a site. |
| | | 1.4 | Identify all transport from a site. |
| 2 | Analyse transport requirements | 2.1 | Identify current specifications for required transport. |
| | | 2.2 | Identify transport that is not essential to product or process as defined from the perspective of a customer. |
| | | 2.3 | Identify transport arrangements used which are inefficient. |
| | | 2.4 | Determine transport required to increase utility. |
| 3 | Determine total cost of transport | 3.1 | Calculate direct financial cost of transport. |
| | | 3.2 | Determine emissions from transport. |
| | | 3.3 | Calculate working capital costs of transport. |
| | | 3.4 | Calculate cost impost of transport which does not meet requirements. |
| | | 3.5 | Calculate costs of transport which does not increase utility. |
| 4 | Develop strategies for reducing the use of the resource/material | 4.1 | Rank transport by total costs. |
| | | 4.2 | Rank unnecessary transport by total costs. |
| | | 4.3 | Develop strategies to reduce total transport costs. |
| 5 | Prepare a recommendation for a resource use reduction | 5.1 | Consult with key stakeholders. |
| | | 5.2 | Identify strategies required to meet regulatory or similar requirements. |

strategy

- 5.3 Rank strategies by benefit/cost ratio.
- 5.4 Short-list preferred transport improvement strategies.
- 5.5 Prepare recommendations for improving transport.

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.

- Transport used in a value chain includes one or more of**
- vehicle
 - ship/boat
 - train
 - aeroplane
 - conveyor or other means.

- Financial costs include one or more of**
- purchase
 - lease
 - hire costs
 - maintenance costs.

- Inefficient transport includes one or more of**
- transport which uses more time, fuel or larger capacity of transport than is needed or causes more stock to be held than is necessary
 - not travelling by the most direct route
 - taking more time than necessary
 - not correctly matching load to capacity of transport vehicle
 - not correctly matching delivery and pick up times to production requirements.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS015013A Conduct a sustainability related transport audit.

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 MSS015013 Conduct a sustainability related transport audit

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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, across one or more organisations/value chains, to:

- map transport use to part of value chain to be analysed
- apply concept of utility to transport
- rank transport by cost and utility
- develop transport improvement strategies
- prepare recommendations in line with stakeholder requirements.

Knowledge Evidence

Must provide evidence that demonstrates sufficient knowledge to interact with relevant personnel and be able to conduct a transport audit including knowledge of:

- value chain and transport within the value chain
- modes of transport used within and external to site
- alternative modes of transport which could achieve same outcomes
- requirements of transport to meet required outcomes (transport specifications)
- muda (waste) as used in competitive systems and practices
- utility as a concept and as applied to transport
- transport costs and emissions
- working capital, including inventory costs of transport
- methods of calculation of costs
- strategies for reducing transport and transport costs
- cost-benefit calculation.

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 a sustainability related transport audit is carried out for 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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