



Australian Government

MSS402080 Undertake root cause analysis

Release: 1

MSS402080 Undertake root cause analysis

Modification History

Release 1. Supersedes and is equivalent to MSS402080A Undertake root cause analysis

Application

This unit of competency covers the skills and knowledge required to undertake root cause analysis (RCA). This unit also covers the competencies needed by operators to contribute to an advanced maintenance strategy using RCA coupled with diagrams and charts.

This unit applies to individuals working in an organisation that is applying competitive systems and practices strategies. The unit applies to the formal problem solving to root cause that the individual must undertake in their own work area or where the individual contributes to problem solving to root cause as part of a team.

This unit requires an ability to seek and apply information from a variety of sources in order to inform RCAs. Initiative and enterprise is also required to identify quick fix and permanent solutions to problems.

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

Pre-requisite Unit

Nil

Competency Field

Competitive systems and practices

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 Recognise problems | 1.1 Identify features or occurrences indicative of a problem. |
| | 1.2 Use appropriate tools, techniques and charts to define the problem. |

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| 2 | Implement quick fix | 2.1 | Recommend a quick fix within the scope of competency and authority. |
| | | 2.2 | Use technology or processes relevant to the problem to implement quick fix. |
| | | | |
| 3 | Determine root cause | 3.1 | Identify a range of possible causes. |
| | | 3.2 | Gather data and other information to eliminate or confirm possible causes. |
| | | 3.3 | Use available data and information to link causes and effects. |
| | | 3.4 | Seek assistance to obtain additional information if problem is beyond own competency/authority. |
| | | 3.5 | Identify root cause. |
| | | | |
| 4 | Develop permanent solution | 4.1 | Identify a range of methods to eliminate the root cause or break the cause tree. |
| | | 4.2 | Select the most appropriate solution. |
| | | 4.3 | Liaise with relevant people. |
| | | 4.4 | Recommend or implement solution within the limits of competency and authority. |
| | | 4.5 | Monitor impact of solution and make further recommendations, as required. |

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.

Competitive systems and practices include one or more of:

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

Problems include one or more of:

- variation to normal plant or equipment operation
- unplanned or non-conforming process or operations outcomes
- out of specification products
- excess scrap
- accidents and emergencies
- regulatory breaches
- customer returns and complaints
- reduction or loss of sales.

Techniques/charts include one or more of:

- control charts
- Pareto charts
- run charts
- flow charts
- cause and effect diagrams
- tree diagrams
- 5 Whys analysis
- organisation specified/mandated methods.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>