



Australian Government

MSS404083 Support proactive maintenance

Release: 1

MSS404083 Support proactive maintenance

Modification History

Release 1. Supersedes and is equivalent to MSS404083A Support proactive maintenance

Application

This unit of competency covers the skills and knowledge required to lead a production team/work group or maintenance team in a proactive maintenance environment.

This unit applies in a competitive systems and practices organisation where proactive maintenance strategies, such as total preventative/productive maintenance (TPM) or reliability centred maintenance (RCM) are used. This unit applies to a team leader or other person who as part of their role assists others in implementing and following the proactive maintenance practices.

The unit covers the leading of a team in proactive maintenance activities, such as keeping records, visual checks, analysis of failures and effects on production and housekeeping. The unit does not cover breakdown maintenance, condition monitoring or non-destructive testing (NDT).

This unit requires the application of skills associated with communication, teamwork, problem solving, initiative, enterprise, planning and organising in order to lead a team in the development and implementation of proactive maintenance strategies. This unit has a strong emphasis on developing and resourcing the team to interpret information and monitor equipment and operation.

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 | Lead team in monitoring process and equipment | <div>1.1 Demonstrate to team how to observe the process/equipment continuously and critically using appropriate senses (e.g. sight and hearing) to identify any potential or actual problems.</div> <div>1.2 Identify to team data indicators that must be monitored and recorded.</div> <div>1.3 Ensure team monitors identified data indicators frequently and critically.</div> <div>1.4 Ensure symptoms of operations outside the desired range of conditions and performance are recognised.</div> <div>1.5 Analyse cause of equipment non-standard performance within scope of knowledge and skill.</div> <div>1.6 Ensure team members take timely action to solve problems or to refer problems to appropriate manager or specialist.</div> |
| 2 | Apply proactive maintenance strategy | <div>2.1 Obtain and discuss maintenance strategy with relevant people.</div> <div>2.2 Identify aspects of maintenance strategy which require specific input from team.</div> <div>2.3 Discuss maintenance strategy with team members.</div> <div>2.4 Ensure team members have resources and training to be able to make the required contributions.</div> |
| 3 | Analyse standard procedures and work practices | <div>3.1 Examine team procedures and practices for compatibility with maintenance strategy.</div> <div>3.2 Identify areas where production procedures/practices should be changed to comply with maintenance strategy.</div> <div>3.3 Identify areas where maintenance strategy should change to comply with production procedures and practices.</div> <div>3.4 Identify other activities or areas where changes might increase equipment reliability.</div> |

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|---|--|-----|--|
| | | 3.5 | Take action to have the required changes made. |
| 4 | Facilitate team contribution to proactive maintenance | 4.1 | Monitor team's contribution to proactive maintenance. |
| | | 4.2 | Arrange for competency development of team members, as required. |
| | | 4.3 | Facilitate ongoing examination by the team of process reliability and overall equipment effectiveness (OEE). |
| | | 4.4 | Arrange for follow through and implementation of team originated improvements. |

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.
- Team includes one or more of:**
- work teams from all sections of the organisation including production, maintenance, technical, administration/finance and sales/marketing
 - a formally designated team
 - a group of employees in a common work area.
- Proactive maintenance strategies and associated analyses include one or more of:**
- TPM and RCM
 - root cause analysis (RCA)
 - mean time between failures (MTBF)
 - failure mode and effects analysis (FMEA)
 - condition monitoring.

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>

Assessment Requirements for MSS404083 Support proactive maintenance

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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, in one (1) or more work areas, to:

- communicate effectively with team on the proactive maintenance strategy being adopted and the role expected by the team in its implementation
- identify data required from team and for team for the proactive maintenance strategy
- analyse proactive maintenance strategy and current work practices of the team to identify opportunities for better fit
- differentiate between proactive and traditional maintenance strategies.

Knowledge Evidence

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

- the production process as it applies to the team area of responsibility
- equipment controls and function used in team's work area
- data ranges and indicators for normal team operations
- data and equipment variations and fault indicators able to be identified by team during operations
- range of data required from team for proactive maintenance strategy
- typical analyses used by the proactive maintenance strategy and their implication for work of the team
- responsibilities of the team, maintenance staff and technical experts
- OEE and relationship to team's operational capability.

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:
 - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace

- will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include proactive maintenance practices in own workplace
- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) 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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