



Australian Government

MSS404082 Assist in implementing a proactive maintenance strategy

Release: 1

MSS404082 Assist in implementing a proactive maintenance strategy

Modification History

Release 1. Supersedes and is equivalent to MSS404082A Assist in implementing a proactive maintenance strategy

Application

This unit of competency covers the skills and knowledge required by a maintenance person to assist in the implementation of a proactive maintenance strategy in an organisation. This unit includes the interaction between a maintenance worker and operators, as appropriate.

This unit applies to a maintenance person in an organisation that has adopted or is implementing total preventative/productive maintenance (TPM), reliability centred maintenance (RCM) or similar strategies. As part of this, the maintenance person is expected to assist in the implementation by determining appropriate maintenance related schedules and also by providing maintenance related assistance to non-maintenance personnel, such as assisting production personnel to fulfil their role in the TPM/RCM strategy.

This unit requires the application of skills associated with problem solving and initiative and enterprise in order to analyse maintenance requirements. Communication, teamwork and planning and organising skills will be required to implement reliability strategies. This requires aspects of self-management to ensure improvement of own performance and learning.

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 | Develop components of reliability strategy for a work/plant area | 1.1 | Determine manufacturer's recommended inspection, servicing and related schedules for relevant plant. |
| | | 1.2 | Consult with relevant people with regard to appropriate inspections, services and schedules. |
| | | 1.3 | Discuss any conflicts with relevant people and seek resolution of conflicts. |
| | | 1.4 | Develop schedules in liaison with relevant people. |
| | | 1.5 | Identify inspections and servicing which may be done by operations personnel in liaison with relevant stakeholders. |
| | | | |
| 2 | Assess current practice for maintenance implications | 2.1 | Identify the overall equipment effectiveness (OEE) or other organisation targets for equipment/plant. |
| | | 2.2 | Evaluate procedures for plant/equipment reliability implications. |
| | | 2.3 | Discuss current practices with relevant people to determine any plant/equipment reliability implications. |
| | | 2.4 | Recommend changes to improve plant/equipment reliability in accordance with procedures. |
| | | | |
| 3 | Assist in implementing the reliability strategy | 3.1 | Arrange for schedules to be incorporated in relevant work plans. |
| | | 3.2 | Identify training needs in discussion with relevant personnel. |
| | | 3.3 | Assist personnel to develop required skills for inspections/ servicing within scope of authority. |
| | | 3.4 | Collect data/information as required by own work plan. |
| | | 3.5 | Compare data/information with performance indicators. |
| | | 3.6 | Recommend improvements to reliability strategy in accordance with procedures. |

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.

Strategies include one or more of:

- mean time between failure (MTBF) which is one key measure of the effectiveness of a maintenance procedure, and is an indicator as to whether root causes are being found and resolved. If MTBF is reducing, then it is an indicator that the maintenance regime is failing
- failure mode and effects analysis (FMEA) which is a systematic approach that identifies potential failure modes in a system, product or equipment based operations caused by either design or operation/process deficiencies. It also identifies critical or significant design or process characteristics that require special controls to prevent or detect failure modes. FMEA is a tool used

to prevent problems from occurring

- industry sectors have highly adapted forms of FMEA and which may practice traditional FMEA in their routine maintenance while using another technique, such as Hazard and Operability Studies (HAZOP) for design and modification. HAZOP is a form of FMEA which has been practiced by the process industries for over 30 years and examines the implications of changes in process conditions to process stability
- condition monitoring which often involves quite sophisticated monitoring of equipment, including such things as vibration monitoring, instrumental analysis of lubricating oil, and so on, to determine the current state of the equipment, monitor the change in this condition and predict when it needs servicing/maintenance to maintain reliability.

Inspection includes one or more of:

- reading dials, gauges and meters
- observations, including those using sight, hearing, smell and feel
- observations of product quality/faults/rejects.

Servicing includes one or more of:

- cleaning
- lubricating
- topping up
- adjusting.

Procedures (written, verbal, visual, computer based, etc.) include one or more of:

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

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 MSS404082 Assist in implementing a proactive maintenance strategy

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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, for one (1) or more work/plant areas, to:

- source information from manuals and other technical documentation or software
- effectively communicate with users on equipment operational and maintenance history
- develop schedules for maintenance activities, including seeking technical assistance, where appropriate
- 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:

- requirements of the proactive maintenance strategy being implemented
- operating principles and procedures for equipment/plant subject to proactive maintenance strategy
- purpose and processes for data collection in proactive maintenance strategies
- procedures relevant to own job and organisation implementation of proactive maintenance
- methods of making/recommending improvements.

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 in 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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