Australian Government

MSS405032 Analyse cost implications of maintenance strategy

Release: 1

MSS405032 Analyse cost implications of maintenance strategy

Modification History

Release 1. Supersedes and is equivalent to MSS405032A Analyse cost implications of maintenance strategy

Application

This unit of competency covers the skills and knowledge required to analyse the cost implications of different maintenance strategies and to adjust or adopt a strategy to minimise or eliminate unnecessary costs. This unit applies to an individual in an organisation who is selecting or reviewing its proactive maintenance strategy. While technical factors are significant in the choice of maintenance strategy and tools, cost factors will also impact on the selection of a maintenance strategy. This unit covers the cost analysis of maintenance strategies and complements the technical analysis covered in MSS405081 Develop a proactive maintenance strategy. The technical analysis may be performed by the same or a different person to the person undertaking the cost analysis.

This unit primarily requires the application of skills associated with communication in gathering, analysing and applying costing information and consulting with maintenance personnel. Problem solving, initiative and enterprise, and planning and organising are required to analyse and estimate the cost of maintenance strategies.

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.	
1	**Analyse cost components of**	1.1	Determine cost of failure of plant/equipment.
		1.2	Determine cost of a planned maintenance shutdown

	maintenance		activity, including costs of re-start.
		1.3	Determine cost of maintenance for a planned activity.
		1.4	Determine cost of maintenance for an unplanned activity.
		1.5	Determine costs of condition monitoring.
		1.6	Identify cost implications of different maintenance strategies.
2	**Estimate life cycle costs of plant/ equipment**	2.1	Determine initial capital cost.
		2.2	Estimate servicing, maintenance and repair costs.
		2.3	Estimate production (e.g. loss of) and other costs associated with service, maintenance and repair.
		2.4	Determine depreciation and other applicable allowances.
		2.5	Estimate ancillary costs, such as training, commissioning and productivity loss.
		2.6	Estimate technological life and costs of changing to current technology/costs of retaining obsolete equipment.
		2.7	Estimate annualised costs in present value terms.
		2.8	Identify life cycle cost implications for strategy.
3	**Liaise with proactive maintenance strategy developer**	3.1	Identify cost implications for different strategies.
		3.2	Negotiate a strategy which minimises total costs.
		3.3	Monitor the implementation of the strategy to ensure the costs are minimised.
		3.4	Make required adjustments to strategy.

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.
Maintenance strategies and techniques include one or more of:	• total productive maintenance (TPM) • reliability centred maintenance (RCM) • root cause analysis (RCA) • mean time between failures (MBTF) • failure mode and effects analysis (FMEA) • condition monitoring • related proactive maintenance strategies.
Cost components of	• direct costs, such as labour and materials

maintenance include all of:	• indirect costs, such as management overhead • comparison with cost of equipment replacement • re-engineering • breakdown repair • cost of lost production under different maintenance strategies • cost of inefficient equipment/plant operation due to poor maintenance.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS405032A Analyse cost implications of maintenance strategy

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998