Australian Government

MSS014005 Apply proactive maintenance strategies to sustainability

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

MSS014005 Apply proactive maintenance strategies to sustainability

Modification History

Release 1. Supersedes and is equivalent to MSS014005A Apply proactive maintenance strategies to sustainability.

Application

This unit of competency covers using a proactive maintenance strategy to improve the sustainability outcomes of equipment, plant or process. This unit includes the interaction between maintenance worker and operator as appropriate.

This unit applies where an organisation has decided to adopt or is implementing total preventative maintenance/total productive maintenance (TPM), reliability centred maintenance (RCM) or similar strategies (jointly referred to as 'proactive maintenance' in this unit) to improve their sustainability outcomes as well as their maintenance outcomes.

The unit applies to individuals who have maintenance related responsibilities, including but not limited to, mechanical, electrical, fabrication and other tradespersons, technicians and operators with maintenance related responsibilities.

The unit scope includes processes and operations, products made, internal and external support services and the services offered, and use of sites by another organisation, such as a contractor or value chain member organisation.

Environmental sensitivities referred to in this unit are at the issue level. The technical measurement of operational performance or measurement of emissions or other environmental impact is not covered by this unit.

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.	
1	**Define sustainability issues for work area**	1.1	Identify sustainability goals of enterprise as they relate to work area.
		1.2	Identify actual or possible sustainability issues in work area.
		1.3	Determine current maintenance strategy for work area.
		1.4	Identify changes to maintenance strategy which may improve sustainability outcomes.
		1.5	Consult with stakeholders with regard to sustainability issues and possible maintenance changes.
2	**Assess current maintenance practice for sustainability implications**	2.1	Evaluate current maintenance procedures for plant/equipment sustainability implications.
		2.2	Discuss current maintenance practices with relevant stakeholders to determine any plant/equipment sustainability issues.
		2.3	Recommend changes to improve plant/equipment sustainability impact in accordance with procedures.
3	**Implement the sustainable maintenance strategy and practices for the work area**	3.1	Arrange for changes to be incorporated into procedures and work plans.
		3.2	Identify training needs in liaison with relevant personnel.
		3.3	Assist personnel to develop required competencies within scope of authority.
		3.4	Collect data as required by own work plan.
		3.5	Develop required information and compare with

performance indicators.

3.6 Recommend sustainability improvements in accordance with procedures.

3.7 Monitor implementation of improvements and recommend any further required changes.

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.

Interactions with the environment include one or more of	• drawing physical resources from the environment • releasing materials to the environment (e.g. emissions) • drawing energy from/releasing energy to the environment.
Environmental sensitivities include one or more of	• fragile areas and rare or threatened species • heritage or culturally sensitive issues • hazardous emissions • real or perceived overuse of scarce resources • regulated emissions or other regulatory issues • noise • community perceptions or other issues.
Sustainability issues need to reduce the carbon footprint of product and process through reduction in use of one or more of	• energy • water • raw materials • emissions • embedded carbon in transport, storage, rework and errors, and inefficient processes and design.
Sustainability related issues include one or more of	• current and future availability of raw materials • current and future availability of energy • extent and type of waste generation and disposal • efficiency of process in terms of consumption of materials and energy regarded as in short supply or which are regarded as environmentally sensitive • the extent to which the production process, product and waste affects the environment • relationship with the local and broader community, (e.g. effect of operations on aesthetic appearance, preservation of heritage, and proximity to schools and religious facilities) • extent of regulatory oversight and extent and cost of compliance.
Procedures (written, verbal, visual, computer based,	• work instructions • standard operating procedures • safe work method statements

etc.) include one or any combination of	• formulas/recipes • batch sheets • temporary instructions • any similar instructions provided for the smooth running of the plant.
Overall equipment effectiveness (OEE) includes one or more factors where	• availability takes into account losses due to breakdown, set-up and adjustments • performance takes into account losses due to minor stoppages, reduced speed and idling • quality rate takes into account the losses due to rejects, reworks and start-up waste.
Maintenance practices that impact sustainability include one or more of	• increased inspection frequency of equipment above minimum requirements • lubrication and filter changeovers above minimum requirements in order to achieve higher environmental performance • replacement at set intervals to eliminate/reduce breakdowns • duplicate circuits • remote monitoring • increased training of operators in equipment monitoring and minor maintenance.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS014005A Apply proactive maintenance strategies to sustainability.

Links

MSA Training Package Implementation Guides - http://mskills.org.au/training-packages/info/