Australian Government

PMASUP350 Control corrosion

Release: 1

PMASUP350 Control corrosion

Modification History

Release 1. Unit Code and Application changed. Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMASUP346 Control corrosion.

Application

This unit describes the skills and knowledge required to control corrosion in a plant, its equipment and/or plant pipelines using chemical or biological controls. This unit includes all equipment and operations that form part of the corrosion control system. Corrosion typically refers to any electrochemical process leading to the decay of metal. This unit may also be contextualised and applied to decay processes in non-metals.

This unit applies to autonomous operators who are required to demonstrate a significant understanding of the process and the equipment operation in a plant with local control, or in liaison with the control-room operator in a plant with a centralised control panel.

This unit applies to an individual working alone or as part of a team or group, and working in liaison with other shift team members and the control-room operator.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Support

Elements and Performance Criteria

Elements	**Performance Criteria**
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Identify corrosion controls in use	1.1 Identify sites susceptible to corrosion on work area 1.2 Identify the causes and effects of corrosion at these sites 1.3 Identify the corrosion inhibitors used in work area 1.4 Identify and control hazards associated with corrosion and corrosion control

Elements	**Performance Criteria**
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
	1.5 Communicate with personnel to identify and coordinate work requirements
2. Dose corrosion inhibitor in accordance with procedures	2.1 Monitor indicators of rate of corrosion 2.2 Monitor inhibitor-dosing equipment according to operating procedures 2.3 Adjust rate of dosing according to operating procedures 2.4 Monitor inhibitor stocks according to operating procedures 2.5 Identify actual and developing situations that may require action 2.6 Take action to remedy abnormal situations according to operating procedures
3. Test plant for corrosion in accordance with procedures	3.1 Obtain permit clearance before commencing work activity 3.2 Complete testing activities as required by procedures 3.3 Examine test results and take action
4. Shut down and prepare dosing plant for maintenance	4.1 Check and verify safety systems to ensure that the unit has been made safe 4.2 Complete pre-shutdown checks according to operating procedures 4.3 Shut down dosing plant according to operating procedures 4.4 Identify, control and report shutdown hazards 4.5 Monitor shutdown and identify abnormal situations that may require action 4.6 Take action to remedy abnormal situations according to operating procedures 4.7 Shut down and changeover duty and standby equipment according to operating procedures 4.8 Ensure isolation of all required energy sources and immobilisation of potential energy sources 4.9 Place locks and tags on isolation devices in accordance with the type of permit procedure
5. Prepare and start up dosing plant	5.1 Resolve coordination requirements with others at the site prior to commencing and during de-isolation activities 5.2 Remove locks and tags from isolation devices 5.3 Restore energy sources according to procedures

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
	5.4 Identify, control and report startup hazards 5.5 Identify, correct and report situations that may endanger individuals or workers 5.6 Take action to remedy abnormal situations according to operating procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Learning skills to follow instructions, monitor process and select appropriate procedure.
- Writing skills to complete workplace documentation.
- Reading skills to follow written procedures and documentation.
- Oral communication skills to liaise and coordinate with team members and the control-room operator.
- Numeracy skills to monitor dosing, stock, tests and process parameters.

Other foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMASUP346 Control corrosion.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875