



Australian Government

PMC554091 Analyse refractory failures

Release: 1

PMC554091 Analyse refractory failures

Modification History

Release 1. Supersedes and is equivalent to PMC554091B Analyse refractory failures.

Application

This unit of competency covers the skills and knowledge required to analyse refractory failures to determine failure mode.

This unit of competency applies to operators who are required to identify and analyse failure mode, organise simple testwork programs and make recommendations based on evidence.

This unit of competency applies to technician applying specialised theoretical and technical knowledge and well developed skills in situations that require autonomy, discretion and judgement. The person may work alone or as a member of a team or group and will work in liaison with customers, installers, engineers and technical experts, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Technical

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	Establish the suitability of resources	1.1	Check all information conforms with resources
		1.2	Record discrepancies in information
		1.3	Report any inaccuracies in information to the person in

			charge
		1.4	Identify and select materials, components, tools and equipment
2	Analyse failure modes	2.1	Identify spalling modes
		2.2	Identify corrosion mode
		2.3	Identify abrasion modes
		2.4	Identify impact/compression/tensile modes
3	Undertake forensic procedures	3.1	Plan required investigation
		3.2	Specify required testwork/analyses
		3.3	Interpret test results
		3.4	Formulate simple reports

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.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Hazards Hazards must be identified and controlled. Identifying hazards requires consideration of:

- health and safety risks
- sustainability risks
- regulatory risks.

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMC554091B Analyse refractory failures.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=45a7f1d5-61a5-447a-9688-7abbd7e1a5c7>