



Australian Government

PMBTECH406E Diagnose production equipment problems

Release: 1

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Modification History

Release 1. Unit code. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBTECH406 Diagnose production equipment problems.

Application

This unit covers the skills and knowledge required to assess production equipment output and diagnose the causes of product output variances.

This unit applies to an experienced technician working alone or as part of a team.

The unit principally refers to the competency requirements for formal diagnostic skills and knowledge required by dedicated production process and machine operators or technicians, and those supporting specialist technicians.

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

Technical

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 variance in product and associated production output	1.1 Examine product and associated production output for variance against job and equipment specifications 1.2 Categorise identified variance by type and prioritise it for action
2. Determine most probable possible cause(s) of variance	2.1 Analyse variance to determine possible causes 2.2 Examine possible causes to prioritise more likely ones for further investigation 2.3 Compare hypotheses of variance with available data to support diagnosis 2.4 Identify most probable cause for further action

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
3. Develop and implement solution to rectify variance	3.1 Develop solution for recommendation to rectify variance that considers work health and safety implications and established workplace procedures 3.2 Use appropriate techniques to communicate recommendation and verify understanding 3.3 Seek support from relevant stakeholders for recommendation 3.4 Identify potential hazards and ensure controls are in place 3.5 Implement agreed solution and monitor initial progress to ensure resolution is achieved
4. Check success of variance solution	4.1 Monitor ongoing success of solution to product or production output variance 4.2 Monitor work health and safety and other workplace impacts of solution 4.3 Update workplace records and procedures to reflect solution

Foundation Skills

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

- Numeracy skills to measure and quantify variances and their impacts.
- Reading skills to interpret job and equipment specifications for comparison with product outcomes.
- Writing and oral communication skills to record and report variances and their solutions to stakeholders, and document procedural updates and records.

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

Unit Mapping Information

Supersedes and is equivalent to PMBTECH406 Diagnose production equipment problems.

Links

Companion Volume implementation guides are found in VETNet – -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

Assessment Requirements for PMBTECH406E Diagnose production equipment problems

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit competency, and demonstrated the ability to:

- diagnose and rectify product equipment problems at least once, to meet job specifications, including:
 - examination of products and processes to identify variances using:
 - visual examination
 - examination of product quality or other records
 - examination of inspection records
 - examination of test results
 - specific examination testing undertaken as part of a product improvement activity.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- how the process and equipment functions
- characteristics of materials in relation to process conditions and stages of production
- types of product faults, including variations in:
 - colour
 - surface finish
 - size/shape
 - physical properties
 - chemical properties
- regimes for product and process testing
- techniques for communicating proposals to stakeholders
- typical process and product problems, including early warning signs, possible causes and corrective actions.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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