



Australian Government

Assessment Requirements for PMAOPS358 Process design fundamentals

Release: 1

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Modification History

Release 1. This version was released with PMA Chemical, Hydrocarbons and Refining Training Package, Release 2.0.

Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit:

- at least 2 times, each in a separate work context.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- all items relating to process design including:
 - principles of process design, including human factors
 - process design items, type, functions and troubleshooting techniques
 - operating parameters and integrity limits, and product specifications and tolerances, including temperature, pressure and flow
 - emergency shutdown procedures
 - control philosophies and strategies
 - interactions between plant items and process design fundamentals
- process-specific physics and chemistry to the level of being able to provide an overview of the science of the process design fundamentals
- management of change process
- document control process
- deviation management process
- process design fundamentals that control abnormal situations and the required action, including but not limited to:
 - variation or loss of supply
 - unstable control of pressure, temperature, level and flows
 - control equipment failure
 - process plant trips
 - change in atmospheric conditions (including rain, temperature, wind, lightning and calm weather)
 - poor quality from test results
 - analyser inaccuracy or malfunction
 - hierarchy of control

- process design fundamental hazards:
 - possible causes
 - potential consequences
 - appropriate risk controls
 - reporting and escalation procedures.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - real industrial equipment located in either a live plant or a realistic simulated industrial environment
 - routine operating procedures.

Abnormal situations must include:

- industry incidents or events relevant to the operation of systems
- actions adhering to workplace policies and procedures.

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

Links

Companion Volume implementation guides are found in VETNet – -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>