



Australian Government

**Assessment Requirements for PMAOPS310
Operate and troubleshoot distillation
system**

Release: 1

Assessment Requirements for PMAOPS310 Operate and troubleshoot distillation system

Modification History

Release 1. Unit code and title changed. Application and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMAOPS301 Operate a distillation unit.

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:

- distillation principles, including stripping and rectification
- all items on a schematic of the distillation system, including:
 - type of distillation unit, the component plant items and their functions, including column, tray/packing, condenser and reboiler operations
 - interactions between plant items and processes
 - operating parameters and integrity limits, including temperature, pressure and flow
 - procedures for starting, stopping, operating, controlling and isolating the system
 - methods of changing production rate, product specifications and process variables
 - impact of external factors (including variations in weather)
- physics and chemistry to the level of being able to provide an overview of the science of the distillation process
- distillation system abnormal situations and required actions, including but not limited to:
 - process-feed variations
 - instrument failure/wrong reading
 - electrical failure
 - mechanical failure
 - operational problem
 - flooding
 - channelling (packed column)
 - dumping
 - entrainment
 - loss of control of critical variables and outputs
 - variations in feed rates

- variations in quality
- hierarchy of control
- distillation 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:
 - distillation system
 - operating procedures
- abnormal situations must be relevant to distillation systems.

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>