



**Australian Government**

**Assessment Requirements for MEM13007  
Maintain water treatment systems for  
cooling towers**

**Release: 1**

# Assessment Requirements for MEM13007 Maintain water treatment systems for cooling towers

## Modification History

Release 1. Supersedes and is equivalent to MEM13007B Maintain water treatment systems for cooling towers

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting specifications, charts and other applicable reference documents in maintaining water treatment systems for cooling towers
- assessing relevant water conditions against specifications
- testing the condition of the water in the cooling tower/treatment system and determining appropriate action
- testing dosing components for correct operation/performance
- testing water properties using appropriate techniques and equipment and checking for compliance to specifications
- determining and recording test results and adjusting dosing flow in the system to specification
- reporting system faults to appropriate personnel.

## Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- causes of corrosion, scale and algae
- methods of treating/preventing occurrence of corrosion, scale and/or algae in water cooling towers and treatment systems
- air flow patterns of cooling towers
- testing requirements of AS/NZS 3666:2011 Air-handling and water systems of buildings, and/or other relevant regulations relating to water cooling towers
- precautions for preventing contamination of systems by Legionella bacteria
- procedures for testing the condition of the water in the cooling tower
- specifications of the water condition
- variations of the test results from specification and procedures to be followed when water condition varies from specification

- correct operation/performance of the following system components: regulators, filters, conditioners and pumps related to treatment systems
- performance tests for treatment system components
- water properties to be tested and procedures for testing water properties
- test equipment and techniques
- water temperature specifications
- procedures for reporting system faults
- codes and regulations relevant to maintaining water treatment systems.

## Assessment Conditions

- Assessors must:
  - have vocational competency in maintaining water treatment systems for cooling towers at least to the level being assessed with relevant industry knowledge and experience
  - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>