



Australian Government

Assessment Requirements for MEM23141 Complete a building thermal performance survey

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM23141A Complete a building thermal performance survey.

Performance Evidence

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

- sourcing appropriate drawings, documentation and specifications for buildings
- interpreting building design information for sources of heat gains
- implementing work health and safety (WHS) procedures and practices including the use of risk control measures
- completing a building thermal performance survey including using industry standards and in accordance with organisational procedures
- demonstrating competency within a timeframe typically expected of the discipline, work function and industrial environment
- carrying out a building survey and load estimate for a multiple zone commercial building on at least two occasions
- completing a building thermal performance survey for different buildings on at least two occasions
- communicating technical and procedural requirements to others
- dealing with unexpected situations.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

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:

- WHS requirements
- personnel to consult
- heat gains in buildings
- heat transfer theory
- thermal properties of building materials including materials designed to promote thermal conductivity or insulation
- heat transfer in buildings including effects of:
 - ambient conditions
 - materials and equipment
 - windows and films

- design effects including external design, room and door design, and sun position calculations
- building heat flow, losses and gains including:
 - convection
 - radiation
 - conduction
 - heat paths
- building heat loss and gain calculations
- thermal properties of buildings including losses
- people loads
- cost implications of air conditioning and heating designs
- heat loads calculations including lighting and equipment
- thermal lag
- environmental considerations
- resource and equipment requirements
- relevant legislation and codes of practice
- industry standards
- organisational procedures
- energy efficiency and sustainability.
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Assessment Conditions

- Assessors must:
 - have vocational competency in completing a building thermal performance survey 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 that 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.
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Links

Companion Volume Implementation Guides are available on VETNet -

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