



Australian Government

Assessment Requirements for CPPHES4007

Assess thermal performance of existing residential buildings

Release: 2

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Modification History

- Release 2 This version first released with CPP Property Services Training Package Release 14.0.
- Updated reference to reflect correction in Modification History from CPC Property Services 5.0 to CPP Property Services 9.0.
- Release 1 This version first released with CPC Property Services Training Package Release 5.0.
- Supersedes and equivalent to CPPHSA4004A Assess thermal performance of existing residences using non-rating tools and techniques. Updated to meet the Standards for Training Packages.

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by conducting thermal performance assessments and identifying thermal performance improvements for a minimum of two different existing residential buildings.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- Australian climate zones, characteristics and data used in thermal performance assessments:
 - diurnal temperature range
 - humidity
 - irradiance
 - minimum and maximum temperature
 - solar geometry
 - wind speed and direction
- building thermal performance principles:
 - glazing, shading and insulation for controlling temperature
 - orientation impacts
 - thermal mass for storing
 - ventilation
- definition of thermal comfort and its role in thermal performance assessments

- hazards and risks and types of personal protective equipment (PPE) to be used when conducting on-site thermal performance assessments
- impact of building design and materials on thermal performance:
 - condensation
 - constraints on choice of building materials
 - embodied energy and lifecycle properties of building materials
 - thermal performance properties of common building materials
- key requirements of codes, standards, regulations and government incentive programs associated with improving the thermal performance of existing residences
- options for improving thermal performance of existing residences
- passive energy design principles
- physical factors that influence thermal comfort
- relationship between building design, energy consumption and greenhouse gas emissions
- relationship between building thermal performance and thermal comfort
- requirements, documentation and uses of thermal performance ratings
- safe work requirements for on-site thermal performance assessments
- types, advantages and disadvantages of non-rating tools and techniques used to assess thermal performance of residential buildings
- units of measurement for energy and power associated with thermal performance assessments.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- existing residential buildings to allow achievement of the performance evidence
- codes, standards, legislation and government programs relevant to thermal performance of buildings
- required tools and equipment including PPE
- technical reference library and/or (online) access to current technical publications on:
 - building design and materials
 - house energy rating schemes (HERS)
 - building thermal performance for existing buildings
 - Australian climate zones
 - manufacturers' product information on building products and materials.

Links

Companion volumes to this training package are available at the VETNet website -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>