Modification history

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| Release | Comments |
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 4.0. |

| UNIT CODE | FWPTMM5XXX Verify compliance and conformance of prefabricated timber building systems during off-site manufacture |
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| Application | This unit of competency describes the skills and knowledge required to verify physical performance and compliance liability of panelised or modular prefabricated timber building systems and components during off-site manufacturing to ensure that delivered product matches the design specifications and regulatory obligations. The unit applies to individuals who work as compliance officers, supervisors or managers in a prefabricated timber building systems manufacturing plant. Such individuals demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace. No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.  |
| Prerequisite Unit | Nil  |
| Unit Sector | Timber Manufactured Products |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare to verify prefabricated timber building systems and components | 1.1 Obtain and confirm production schedule, design documentation, plans, requirements and established procedures relevant to the off-site manufacturing order, including workplace health and safety requirements1.2 Identify testing, certification and compliance requirements for prefabricated timber building system, components, materials and/or in-built services from design specifications or appropriate codes and standards1.3 Identify tolerances for material quality, physical dimensions and service connections from design specifications1.4 Prioritise and sequence verification work according to production schedules for completion within established timeframes 1.5 Consult appropriate personnel, testers and certifiers to coordinate verification work efficiently  |
| 2. Conduct verification for compliance and conformance | 2.1 Verify that connections, structural components and physical dimensions of timber framing structure are tested appropriately for strength, thickness, tolerances and choice of materials in line with minimum specified design requirements before services installation2.2 Verify hydraulics, electrical and heating, ventilation, and air conditioning (HVAC) mechanical services for compliance with standards, codes and certifications relevant to local jurisdiction in which the prefabricated timber building system will be installed 2.3 Ensure that partition/walls or floor elements are tested and certified for thermal, acoustic and fire performance in line with design specifications, local codes and standards for minimising or eliminating continuity issues in the final, installed prefabricated timber building system 2.4 Verify regulated components including fire-rated walls or fire protection systems for conformance with performance requirements of relevant codes, standards and design specifications and ensure that damage is minimised within the manufacturing environment 2.5 Ensure that any variations of material properties or system component decided during the off-site manufacture are tested for performance and meet design specification, relevant codes and standards2.6 Ensure that off-site installation of services are tested to the appropriate local standards and approved before delivery to the construction site 2.7 Verify completed prefabricated timber building system to ensure that delivered product is safe for manual handling and meets design specifications and regulatory requirements |
| 3. Report verification findings | 3.1 Identify and report non-compliance and non-conformance issues according to established procedures3.2 Make recommendations for rectifying compliance and conformance issues according to established procedures3.3 Document completion of verification work according to established procedures |

| Foundation SkillsThis section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. |
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| Skill | Description |
| Reading | * read workplace documents which range in complexity
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| Navigate the world of work | * apply knowledge of regulations, codes and standards relevant to compliance of prefabricated timber building systems
* monitors adherence to legal and industry standards and responsibilities
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| Interact with others | * understand what to communicate, with whom and how in routine work situations
* provide relevant information to others as required
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| Get the work done | * take responsibility for planning and organising own workload
* consider how to link own work with the work of others
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| Unit Mapping Information |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FWPTMM5XXX Verify compliance and conformance of prefabricated timber building systems during off-site manufacture | Not applicable | New unit | Not applicable |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet: <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47> |

| TITLE | Assessment requirements for FWPTMM5XXX Verify compliance and conformance of prefabricated timber building systems during off-site manufacture |
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| Performance Evidence |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that, on at least three occasions, the individual has completed the following activities for one or more panelised or modular prefabricated timber building system types including:* cross laminated timber floor and wall systems
* post and beam systems (Glulam, laminated veneer lumber)
* panelised floor cassette systems
* panelised wall systems (including cladding, insulation, windows or doors)
* panelised and pre-finished wall system (inclining above, electrical, plumbing, mechanical or lining)
* pre-finished and fully finished timber-based modules
* implemented workplace health and safety procedures and practices during the compliance and conformance verification operation
* prioritised verification work according to production schedules
* verified relevant documentation and conducted audits correctly and efficiently against design specifications, local codes and standards for any of the following:
* connections, structural components and physical dimensions of timber framing structure regarding strength, thickness, tolerances and choice of materials
* services equipment including hydraulic, electrical and HVAC mechanical
* partition/walls or floor elements of the structure
* fire-rated walls or fire protection systems
* variations of material properties or system component from design specifications
* off-site installation of services
* completed timber building system
* identified non-conformant or non-compliant components or timber building systems
* recommended appropriate corrective actions
* reported legibly and accurately.
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| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:* workplace health and safety procedures and practices related to the work activity
* compliance standards for hydraulics, electrical and HVAC mechanical services
* verification procedures for product compliance and conformance in the manufacture of prefabricated timber building systems
* elements of valid and effective manufacturing inspections, verifications and certification processes as outlined in national and international standards
* methods of verifying product quality (actual versus claimed quality) and compliance with the National Construction Code (NCC) in regards to Performance Requirements
* testing techniques for measuring thermal, acoustic and fire performance of partition and floor elements
* fire rating testing techniques
* testing techniques for hydraulics, electrical and HVAC mechanical services in line with standards and manufacturer requirements including:
* pressure testing of pipework and ductwork
* operational checks of fans, HVAC equipment and controls systems
* performance testing of all air and water flow rates as far as practical
* visual inspection of wiring for faults (both prior to and following transportation of systems)
* hazards and risks associated with manual handling of prefabricated timber building systems that generally arise from off-site manufacture including:
* cut metal edges
* exposed screw tips and nails
* abrasion of insulation materials resting on metal edges
* pinch points in connections
* surfaces which can retain rainwater
* inspection and test plans, inspection and test records and sign off procedures as accepted by the industry or established within the workplace.
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| Assessment Conditions |
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| Assessment of skills must take place under the following conditions: * physical conditions:
* skills must be demonstrated in a workplace or an environment that accurately represents workplace conditions
* resources, equipment and materials:
* computers, keyboards, printers and software used to produce and maintain compliance system records and reports
* specifications:
* access to industry-specific compliance standards and design documentation
* access to production schedules
* access to comprehensive real or simulated certificates, test documentation and product/manufacturer specifications
* access to template inspection and test plans and inspection and test records
* access to workplace policies and procedures for documenting and signing off inspections of product compliance and conformance
* relationships:
* production personnel with whom the individual can interact.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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