CPCCST4003 Undertake preparations for refractory work

Application

This unit of competency specifies the skills and knowledge required to prepare for the commencement of work using refractory bricks and materials. It includes preparing for the construction or repair of various fire resistant structures, including boilers, kilns and industry furnaces.

It applies to specialist and advanced tradespeople working in refractory bricklaying using quality materials as specified by engineers.

This unit is suitable for people operating with autonomy. A person working at this level would be expected to take responsibility for the preparation of refractory work.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Prerequisite Unit

Nil.

Unit Sector

Construction.

Elements and Performance Criteria

1. Plan the work.	1.1 Read, interpret and apply refractory construction requirements from current plans, specifications, standards and codes. 1.2 Obtain, interpret and follow relevant information from work health and safety (WHS), workplace procedures and environmental documentation. 1.3 Use measurements and apply formulas to calculate material quantities from plans and specifications. 1.4 Determine job priorities and sequence job tasks in consultation with others on site. 1.5 Identify potential hazards and determine and implement control measures.
2. Prepare for refractory work.	2.1 Check quantity of delivered materials against the delivery docket and order list. 2.2 Examine materials for conformity with specification, repudiate non-conforming or damaged materials and report to relevant person. 2.3 Select and check serviceability or equipment and tools and set aside and

		report any faulty or damaged equipment.
	2.4	Select, fit and use personal protective equipment.
3. Prepare site for commencement of work.	3.1	Establish position of project for refractory work from plans.
	3.2	Load refractory materials in preparation for job commencement ensuring materials are blended from each pallet.
	3.3	Mix refractory mortar consistently to design requirements.
	3.4	Load mortar onto boards and maintain sufficient volume and flow of materials during construction.

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- technology skills to:
  - use communication tools and devices to communicate and collaborate effectively with others
  - use equipment and programs to access and extract information and develop relevant project schedules and documentation.

Unit Mapping Information

Supersedes and equivalent to CPCCBC4041A Undertake preparations for refractory work.

Links

Companion Volume Implementation Guide:
https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad

Assessment Requirements for CPCCST4003 Undertake preparations for refractory work

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by preparing for a minimum of one refractory work construction project and one refractory repair project.

In doing this, the candidate must:

- ensure that all refractory materials comply with refractory standards and codes
- ensure evidence of suitability, as stated in the National Construction Code (NCC), is issued by suppliers or manufacturer.

Knowledge Evidence

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

- government building and construction legislation relating to refractory work
- building and construction regulation, standards and codes
- relevant sections of National Construction Code (NCC):
    - requirements of evidence of suitability
    - fire resistance
    - fire places, chimneys and flues
- characteristics, applications and limitations of refractory materials:
    - castables
    - different types of insulation materials, including insulation boards and bricks
    - fire bricks
    - fire clay
    - stainless steel joints
    - insulation
- processes, techniques and methods of refractory brickwork
- workplace policies and procedures:
    - acquisition of materials
- key features of refractory plans and specifications:
    - signs, symbols and abbreviations
    - dimensions and scales
    - views, sections and details
- allowable tolerances for brickwork stated in standards
- workplace safety:
    - exposure to silica
    - exposure to excessive noise

    - working at height
    - hazardous manual tasks
    - working with hazardous materials
    - working platforms and scaffolding
- functional and operational features of plant, equipment and hand and power tools
- workplace procedures and environmental requirements relating to waste management
- digital devices, applications and software to achieve tasks outcome.

Assessment Conditions

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

Assessment must be undertaken in the workplace or in a simulated workplace environment.

Candidates must be provided with:

- relevant government legislation
- current refractory codes and standards
- relevant construction drawings, site plans and specifications
- organisational policies, procedures and other quality documentation to undertake the performance criteria and evidence requirements
- digital devices, applications and software to create project schedules and documentation.

Links

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