Australian Government

PMC557098 Specify refractory installation systems

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

PMC557098 Specify refractory installation systems

Modification History

Release 1. Supersedes and is equivalent to PMC557098A Specify refractory installation systems

Application

This unit of competency covers the skills and knowledge required to specify refractory installation systems. It applies to both monolithic and block refractory installations and repairs.

This unit of competency applies to operators who are required to analyse the repair specifications; determine the scaffolding, lifting/support, access, restrictions and other systems needed to implement the installation to meet specifications.

This unit of competency applies to senior technicians or those in similar roles who are required to analyse and synthesise advanced theoretical and technical knowledge and apply independent judgement to high-level technical issues and complex problems. The individual may work in liaison with other refractory specialists or they may be the sole refractory specialist for this job or in their organisation.

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

Pre-requisite Unit

Nil

Competency Field

Technical

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	**Analyse installation/repair specification**	1.1	Determine personnel access requirements
		1.2	Determine equipment and material access requirements
		1.3	Determine lifting and positioning requirements
		1.4	Determine site restrictions
		1.5	Determine restrictions caused by the refractory and/or job
		1.6	Compile installation system requirements
2	**Develop scaffolding requirements**	2.1	Calculate required size of work platforms
		2.2	Calculate load and load distribution on scaffold
		2.3	Identify appropriate load bearing surfaces for scaffold base
		2.4	Identify tie points for scaffold, if any
		2.5	Select appropriate scaffold type for application
		2.6	Develop draft scaffold specification
		2.7	Check compliance of draft specification with regulations
		2.8	Develop scaffolding requirements in liaison with a licensed scaffolder or scaffold supplier
		2.9	Identify scaffold related health, safety and environmental (HSE) hazards
		2.10	Determine appropriate hazard controls
		2.11	Check for discrepancies or conflicts and take appropriate action

3	**Develop lifting and/or supporting requirements**	3.1	Calculate loads to be lifted/supported
		3.2	Calculate loads on supports and running gear
		3.3	Determine support needs during placement of refractory or equipment
		3.4	Calculate impact on loads of placement needs
		3.5	Determine design loads
		3.6	Select appropriate lifting/supporting means
		3.7	Check compliance with any relevant regulation
		3.8	Modify scaffold specification if required
		3.9	Identify lifting/supporting related HSE hazards
		3.10	Determine appropriate hazard controls
		3.11	Check for discrepancies or conflicts and take appropriate action
		3.12	Prepare lifting/supporting specification
4	**Ensure installation system complies with specification**	4.1	Liaise with contractors and others to ensure specifications are understood
		4.2	Implement checking mechanisms to ensure system complies with specification
		4.3	Take appropriate action on non-conformances as required
		4.4	Report during project as required
		4.5	Complete end of project documentation on completion

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- HSE legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

HSE hazards

Identification of HSE hazards requires consideration of:

- access/egress restrictions
- ventilation restrictions
- moving objects/loads
- cables under tension.

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - http://mskills.org.au/training-packages/info/