



Australian Government

CUAACD510 Manage kiln operations

Release: 2

CUAACD510 Manage kiln operations

Modification History

Release	Comments
Release 2	This version was released with CUA Creative Arts and Culture Training Package Version 4.1. Minor updates to Assessment Conditions.
Release 1	This version first released with CUA Creative Arts and Culture Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to safely manage the technical operation of a kiln in the context of independent art, craft or design practice.

It applies to individuals who work in ceramics, glass or sculpture production and may also be responsible for the purchase or construction of their own kilns. They must be able to safely manage the operation of a kiln as part of an independent creative practice.

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

Unit Sector

Visual communication – art, craft and design

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for kiln work	1.1 Assess the ways in which different kilns may be used for craft work and apply to own practice 1.2 Research historical and contemporary trends to inform own approach to kiln work 1.3 Source and access appropriate kiln for own work 1.4 Compare the value of own kiln purchase against the benefits of

ELEMENT	PERFORMANCE CRITERIA
	constructing own kiln 1.5 Where appropriate, experiment with the building of own kiln 1.6 Investigate the specific safety issues associated with kiln work and integrate procedures into own work practices
2. Set up kiln work space	2.1 Review key requirements for kiln set-up 2.2 Confirm or implement appropriate conditions before starting the firing process 2.3 Identify potential safety issues and take action to address them
3. Assess firing options	3.1 Consider the firing options for the work being made 3.2 Determine relevant energy source or fuel 3.3 Establish relevant firing program requirements and optimum firing time 3.4 If relevant, determine the necessary conditions to produce the required kiln atmosphere for the specific process
4. Operate and monitor the kiln	4.1 Evaluate and perform specific kiln loading and unloading requirements according to safety standards 4.2 Set required kiln controls or light kiln according to kiln type being used 4.3 Fire the kiln according to required firing schedule 4.4 Monitor kiln operation and firing process 4.5 Identify and resolve technical problems in the firing process 4.6 Carry out appropriate shut-down procedures 4.7 Liaise with others on technical and creative aspects of firing, including collaboration on specific challenges
5. Address documentation requirements	5.1 Set up a firing log that includes required information 5.2 Record firing details in the log for all work completed 5.3 Review firing logs to inform future work

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.4, 1.6 2.1, 4.3, 5.3	- Interprets complex theoretical and technical information from a range of sources and determines how content applies to individual requirements - Reviews specific information to inform future work practice
Writing	1.1, 1.2, 1.4 4.7, 5.1, 5.2	Records facts and key information related to the creative and technical outcomes of the job
Oral Communication	4.7	Uses active listening and questioning techniques to elicit information from other practitioners and confirm understanding
Numeracy	1.4, 3.3	Performs basic calculations to determine firing times and compare costs of kiln purchase against kiln construction
Navigate the world of work	1.6, 2.3, 4.1	Considers implication of relevant regulatory and legislative requirements and takes responsibility for their incorporation into establishment and maintenance of safe work practices
Interact with others	4.7	Collaborates with other professionals to gather and share technical information and diagnose problems
Get the work done	1.1, 1.3, 1.5 2.1-2.3, 3.1-3.4, 4.1-4.6, 5.3	- Adopts a systematic approach to preparation and planning of task objectives and outcomes - Makes a range of analytical decisions to safely establish and operate a kiln to requirements, and determine firing options for particular work taking into account variables that affect outcomes - Recognises and addresses unfamiliar problems and uses consultation and reflection to inform future practice

Range of Conditions

This section specifies 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.

Safety issues must relate to:	- correct lifting techniques - kiln emissions
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	• safe use of equipment • correct management of specific hazards associated with: • extreme heat • fuels • use of personal protective equipment (PPE) to protect against dust and fibres.
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
CUAACD510 Manage kiln operations (Release 2)	CUAACD510 Manage kiln operations (Release 1)	Minor updates to Assessment Conditions.	Equivalent unit

Links

Companion Volumes are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

Assessment Requirements for CUAACD510 Manage kiln operations

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Performance Evidence

Evidence of the ability to:

- determine kiln type required for own work
- implement required safety practices for kiln loading and operation
- produce multiple fired craft pieces that are technically sound
- solve technical problems arising from the firing process
- prepare own firing schedules
- establish and maintain a firing log
- pack and fire kilns independently.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss historical and contemporary trends kiln types, kiln construction and kiln operation
- identify properties and capabilities of the range of firing materials, tools and equipment, including pyrometric instruments
- detail properties and specification of different kiln types
- explain specific firing processes, including required firing stages, changes to materials, temperature range and timing of each stage of the process
- identify typical problems that occur with kilns and with the firing process and explain how they may be resolved in the context of relevant materials and art forms

- detail the workplace health and safety requirements for the set-up, operation and maintenance of kilns.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in creative arts industry environments. The assessment environment must include access to:

- sources of information for:
 - safety requirements
 - historical and contemporary kilns
 - kiln types, specifications and operation
- unfired ceramic, glass or other refractory work
- a workplace or studio for the firing of craft work.

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

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