



Australian Government

PMC552005 Process greenware/green products

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to PMC552005C Process greenware/green products.

Application

This unit of competency covers the skills and knowledge required to prepare and process greenware/green products. It applies to greenware/green products such as:

- clay and ceramics products prior to firing
- fibre reinforced cement products prior to autoclaving
- concrete products, such as masonry curing.

This unit of competency applies to operators who are required to prepare the equipment, stack, dry/cure and finish the green products, control and/or report hazards and rectify routine problems.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

This competency does not apply to the firing of products in a kiln or similar firing equipment.

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

Pre-requisite Unit

Nil

Competency Field

Operations

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.

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|---|--|--|
| 1 | Prepare the equipment | 1.1 Determine the requirements from the production program |
| | | 1.2 Identify and set up the racks, shelves or trolleys |
| | | 1.3 Ensure the equipment is safe for use |
| 2 | Control hazards | 2.1 Identify hazards from the job to be done |
| | | 2.2 Identify other hazards in the work area |
| | | 2.3 Assess the risks arising from those hazards |
| | | 2.4 Implement measures to control those risks in line with procedures |
| 3 | Load products for drying/curing | 3.1 Stack or set products to specification |
| | | 3.2 Ensure correct stacking pattern is used |
| | | 3.3 Allow adequate space around each item |
| | | 3.4 Use available space effectively |
| 4 | Dry/cure products | 4.1 Monitor drying equipment and test products to determine correct conditions |
| | | 4.2 Adjust temperature and humidity to maintain correct conditions |
| | | 4.3 Remove product from the area and store appropriately |
| 5 | Finish green products | 5.1 Finish products to specifications |
| | | 5.2 Ensure condition of product is acceptable |
| | | 5.3 Store products in appropriate area |

- 5.4 Repair product and/or report product faults to the designated person
- 6 **Rectify routine problems**
 - 6.1 Identify the range of faults that can occur during the operation
 - 6.2 Determine and rectify fault causes in accordance with procedures
 - 6.3 Identify and rectify equipment failure causes to procedures
 - 6.4 Make sure appropriate records and log books of equipment operations are maintained to meet procedures
 - 6.5 Identify non-routine problems and report to designated person

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:

- health, safety and environmental (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.

Procedures

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- job cards
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment

Tools and equipment include:

- drying area and equipment (e.g. cabinets, tunnel and curing kiln)
- handling and stacking equipment (e.g. transfer cars, kiln cars, trolleys, shelving and racks)
- templates
- temperature measuring equipment
- moisture measuring equipment (e.g. infra-red moisture meter).

Problems/known solutions

Routine problems must be resolved by applying known solutions.

Routine problems/known solutions are predictable and include one or more of:

- inspecting and finishing to ensure surfaces are to specification
- ensuring moisture content is within requirements
- ensuring product strength has been obtained
- temperature and humidity control
- distribution of product in drying/curing area.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- heat, smoke, dust, vapours or other atmospheric hazards
- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- electricity
- gas
- gases and liquids under pressure
- noise
- rotational equipment or vibration

- plant services (steam, condensate, cooling water, etc)
- structural hazards
- equipment failures
- machinery, equipment and product mass
- limited head spaces or overhangs
- working at heights
- working in restricted or confined spaces
- other hazards that might arise.

Records and reports

Records include one or more of:

- log books/sheets
- electronic records
- job/work sheets
- other records used for the smooth running of the plant.

Reports include one or more of:

- paper or electronic-based logs and reports
- verbal/radio reports
- reporting items found which require action.

Unit Mapping Information

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Links

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