



Australian Government

PMC552008 Operate crushing equipment

Release: 1

PMC552008 Operate crushing equipment

Modification History

Release 1. Supersedes and is equivalent to PMC552008B Operate crushing equipment.

Application

This unit of competency covers the skills and knowledge required to operate crushing equipment and ancillary equipment that is integral to the process. Crushing is typically applied in the manufacture minerals products industry to raw materials, materials in process, product and scrap/recycled material.

This unit of competency applies to operators who are required to prepare the equipment, maintain supply of materials, monitor and adjust the equipment 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.

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 to crush materials | 1.1 | Check equipment for hazards, danger and isolation tags in accordance with standard operating procedures (SOPs) |
| | | 1.2 | Perform checks to ensure all doors, inspection openings and guards are in position and secure |
| | | 1.3 | Make adjustments to equipment settings to ensure conformance with SOPs |
| | | 1.4 | Notify appropriate personnel of intention to start equipment |
| | | 1.5 | Conduct additional pre-start checks as required in accordance with SOPs |
| | | 1.6 | Ensure an adequate supply of materials is available to meet production requirements |
| 2 | Crush materials | 2.1 | Start equipment in sequence in accordance with SOPs |
| | | 2.2 | Monitor instrument/control panels and adjust equipment/controls/feed as necessary to remain within specified operating parameters |
| | | 2.3 | Make physical inspections of plant and equipment at specified intervals as required by SOPs |
| | | 2.4 | Maximise product throughput and efficiency to maintain target parameters |
| | | 2.5 | Check screens and screened material to procedures |
| | | 2.6 | Communicate with appropriate personnel regarding the status of operations in line with enterprise requirements |
| | | 2.7 | Make adjustments as appropriate to achieve required output |
| | | 2.8 | Employ working practices which conform with work health and safety (WHS) and enterprise requirements |
| | | 2.9 | Distribute material as required |

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|---|---------------------------------|-----|--|
| 3 | Rectify routine problems | 3.1 | Identify the range of faults that can occur during the operation |
| | | 3.2 | Determine and rectify fault causes by procedures/work instructions |
| | | 3.3 | Identify and rectify equipment failure causes in accordance with procedures/work instructions |
| | | 3.4 | Ensure appropriate records and log books of equipment operations are maintained to meet procedures/work instructions |
| | | 3.5 | Identify non-routine problems and report to designated person |
| | | | |
| 4 | Control hazards | 4.1 | Identify hazards in the crushing work area |
| | | 4.2 | Assess the risks arising from those hazards |
| | | 4.3 | Implement measures to control those risks in line with procedures and duty of care |

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
- 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:

- one or more of:

- jaw crushers
- cone crushers
- grizzlies
- grids
- ancillary equipment that is integral to the process.

Problems Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- difficult material to be crushed
- variations in temperature and moisture
- variations in feed
- product discharge problems
- blocked screens
- oversized feed.

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:

- 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/>