

PMC20104 – Certificate II in Manufactured Mineral Products

Summary of Competency Units

PMAOHS100C - Follow OHS procedures

This unit the worker will be able to accurately recognise hazards commonly occurring at the workplace and follow health and safety instructions and procedures in the workplace. These instructions and procedures relate to the work being undertaken by the worker. The worker will also be capable of dealing with incidents and emergencies within the worker's scope of responsibility and under the direction of the supervisor. The worker will be aware of the importance of maintaining their health and safety and the health and safety of others in the workplace.

Status Core

Elements

- Recognise hazards
- Follow procedures for hazard control
- Follow emergency procedures
- Report problems

Prerequisites:

This unit of competency has no prerequisites.

PMAOPS101B - Read dials and indicators

This unit covers making (or taking) readings/measurements in a variety of sites and locations, using common types of plant instrumentation. This competency unit also covers recording measurement results. This would typically be in a format according to procedures, with the appropriate level of detail included in all reports. In a typical scenario an operator patrols the plant taking a range of readings to complete logs and check on the operation of the plant. The operator needs to interpret the display on the instrument and record the appropriate reading. As part of this process, they check that the instrument is within calibration (where appropriate) and make a judgement as to whether the reading is 'reasonable' or whether some action needs to be taken.

Status Core

Elements

- Contribute to controlling hazards in work area
- Identify appropriate measuring device readings
- Perform measurements
- Record results

Prerequisites:

This unit of competency has no prerequisites.

PMAPROC101 B - Make Measurements

This unit covers the making or taking of measurements in a variety of sites and locations. This competency is typically performed by plant operators who may be working individually or in a team environment.

Status Core

Elements

- Identify appropriate measurements
- Perform measurements
- Record result
- Contribute to controlling hazards in work area

Prerequisites:

This unit of competency has no prerequisites.

PMASUP100B - Apply workplace procedures

This unit covers the skills and knowledge required to complete own work activities. The integration of OHS as part these activities is required and this is specifically addressed in PMAOHS100B - Follow OHS procedures. It includes the awareness and application of workplace procedures, and an introduction to the industry, the company and the employee's role within the organisation.

Status Core

Elements

- Identify industry sector
- Identify products and customers
- Recognise plant structure and processes
- Identify workplace role and responsibilities
- Follow workplace procedures

Prerequisites:

This unit of competency has no prerequisites.

PMASUP110A - Relay and respond to information

This unit covers being able to receive and pass on written and oral messages and to provide relevant information in response to requests within time lines. Everyday workplace language is used, including some mathematical language. The competency unit applies to a wide range of information sources and documentation.

Status Core

Elements

- Receive and relay oral and written messages
- Interpret oral or written messages
- Respond to information

Prerequisites:

This unit of competency has no prerequisites.

PMASUP120A - Follow environmental work practices

This unit covers the awareness of operating personnel of environmental issues and responsibilities and their ability to work according to enterprise environmental policies and procedures to minimize environmental threats.

Status Core

Elements

- Follow workplace procedures for environmentally responsible work practices
- Participate in the improvement of environmental work practices
- Respond to abnormal environmental discharge/emission

Prerequisites:

This unit of competency has no prerequisites.

PMCCOR102A - Clean plant and equipment

This unit covers general housekeeping duties, as well as the cleaning of plant and equipment.

Status Core

Elements

- Identify housekeeping requirements
- Perform general housekeeping duties
- Clean plant and equipment
- Dispose of waste materials

Prerequisites:

This unit of competency has no prerequisites.

PMASUP200B - Implement production efficiencies

This unit The competency covers the ability to identify and implement actions to achieve production targets and to suggest improvements. This unit applies to all employees who are required to participate in process improvement groups. This unit does not cover maximisation of process/equipment efficiencies undertaken as part of the technician's normal role, which is covered in the relevant OPS competency unit. The plant technician would: understand the production process and recognise production inefficiencies within their area; participate in and implement strategies for improving production efficiencies. Generally the plant technician would be part of a team in developing strategies to improve production efficiencies and may be expected to perform all parts of this unit. At all times they would be liaising and cooperating with other members of the team. Prerequisites This unit has the prerequisites of: PMASUP100B - Apply workplace procedures; PMASUP110A - Relay and respond to information; PMAOPS101B - Read dials and indicators, or PMAPROC101B - Make measurements

Status Elective

Elements

- Identify raw material components and their application in production
- Identify production targets
- Recognise key areas effecting production efficiencies
- Implement actions to achieve production targets
- participate in a team/group to analyse an improvement proposal

Prerequisites:

This unit of competency has prerequisites of PMASUP100B and PMASUP110A and PMAOPS101B or PMAPROC101B.

PMCOPS205B - Process greenware/gren products

This unit Covers the drying, preparation and other processing of greenware or green products, including the operation of equipment and the rectification of routine problems

Status Elective

Elements

- Prepare the equipment
- Control hazards
- Load product for drying/curing
- Dry/cure products
- Finish green products
- Rectify routine problems

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS204B - Prepare for production

This unit covers a range of checks required before preparation of raw materials used in the manufacturing process

Status Elective

Elements

- Check production plan
- Identify hazards
- Assemble raw materials
- Check machinery and equipment
- Rectify routine problems

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS203B - Operate grinding equipment

This unit This competency unit applies to the grinding and size reduction of raw materials, materials in process, product and scrap/recycled material.

Status Elective

Elements

- Prepare to grind materials
- Grind materials
- Rectify routine problems
- Distribute ground product
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS202B - Operate equipment to blend/mix materials

This unit this competency covers the selection and blending/mixing of materials using blending/mixing equipment, including the rectification of routine problems.

Status Elective

Elements

- Determine blend/mix requirements
- Control hazards
- Blend/mix materials
- Monitor and record operation
- Rectify routine problems
- Maintain blending/mixing plant and area

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS201B - Operate a unit of equipment

This unit covers the preparation and operation of equipment, including the rectification of routine problems

Status Elective

Elements

- Prepare the equipment for production
- Operate equipment
- Monitor and record operation
- Rectify routine problems
- Shut down equipment
- Prepare equipment for maintenance

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS103C - Operate equipment

This unit covers the operation of any item of equipment which is operated with limited application of knowledge.

Status Elective

Elements

- Follow workplace procedures
- Monitor and operate the equipment/process

Prerequisites:

This unit of competency has no prerequisites.

PMBPROD230B - Monitor process operations

This unit covers the use of production processing equipment. This competency is typically performed by all operators working either independently or as part of a work team.

Status Elective

Elements

- Identify equipment controls and procedures
- Get ready for work/job
- Maintain operations
- Identify product quality requirements

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS208A - Operate crushing equipment

This unit applies to the crushing and screening of raw materials, materials in process, product and scrap/recycled material. It includes: quarried materials, feedstock, waste materials, ground minerals industries, concrete waste

Status Elective

Elements

- Prepare to crush materials
- Crush materials
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMASUP210A - Process and record information

This unit covers the provision and processing of all relevant information by responding to the information requirements of the plant including the completion of all workplace documents and clearly and concisely providing relevant information to others

Status Elective

Elements

- Access information
- Provide appropriate information
- Give and follow routine instructions
- Provide written and oral reports

Prerequisites:

This unit of competency has prerequisite of PMASUP110A Relay and respond to information.

PMCOPS250B - Schedule, cut and bend reinforcement

This unit covers the interpretation of plans ('steel drawings') and the cutting, bending and testing of reinforcing steel for manufactured concrete products.

Status Elective

Elements

- Interpret plan/steel drawing/specifications
- Prepare materials and equipment
- Organise quality testing of reinforcement
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMASUP130B - Follow established work plan

This unit covers the ability to complete tasks individually or in a team context. The tasks involve established routines and procedures using allocated resources with access to readily available procedures and advice. Work plans may need to be modified with supervisor/team leader agreement to suit changing conditions and priorities,

Status Elective

Elements

- Identify work activities
- Organise daily work activities
- Follow work plan
- Modify work plan

Prerequisites:

This unit of competency has no prerequisites.

PMAAPER200C - Work in accordance with an issued permit

This unit aims to ensure that people working under a permit to work understand the system, know the limitations of the permit under which they are working and comply with all the requirements of the permit.

Status Elective

Elements

- Identify the scope of the permit
- Prepare for permitted work
- Work in accordance with an issued permit
- Complete permit to work

Prerequisites:

This unit of competency has no prerequisites.

PMAOPS212A - Use enterprise data system

This unit In a typical scenario, an operator is required to use enterprise data systems in order to work effectively. The operator is familiar with the system, can locate and use the appropriate data and is able to accurately record data into the system as required. Typical data systems may involve: safety support, hazard data, materials data; production systems, schedules, batch control, operating instructions; logistical control systems, ordering, stock control, production and storage.

Status Elective

Elements

- Use enterprise data system
- Store data in system
- Use routine data from system
- Use data to support non-routine requirements
- Respond to problems with the data system

Prerequisites:

This unit of competency has no prerequisites.

PMAOHS200B - Participate in workplace OHS procedures

This unit the worker will be able to accurately identify Occupational Health and Safety (OHS) hazards, and assess risk, as well as follow instructions and procedures in the workplace with minimal supervision. The worker will also be capable of participating in and contributing to OHS management issues.

Status Elective

Elements

- Identify hazards and assess risk
- Follow procedures for risk control
- Follow emergency procedures
- Initiate suggestions to enhance task/job-specific safety

Prerequisites:

This unit of competency has no prerequisites.

PMAOHS110B - Respond to emergency situation

This unit relates to the appropriate response to emergency situations for any new workers at the workplace, possibly delivered as part of an induction program

Status Elective

Elements

- Know when emergency happens
- Follow emergency procedures

Prerequisites:

This unit of competency has no prerequisites.

PMASUP220A - Monitor and control environmental hazards

This unit covers recognising and controlling environmental hazards and incidents. This competency does not include the control of significant incidents which are part of emergency response competencies and/or the role of management personnel.

Status Elective

Elements

- Identify environmental hazards
- Respond to environmental hazards
- Cooperate with internal and external bodies
- Participate in investigation of environmental incident

Prerequisites:

This unit of competency has prerequisite of PMASUP120A Follow environmental work practices

PMCOPS265A - Prepare asphalt

This unit covers the 'batching' of asphalt using either a batch or continuous plant. It covers the selection, drying and blending of the correct aggregates and blending with bitumen to make the desired grade of asphalt.

Status Elective

Elements

- Determine mix requirements
- Mix asphalt
- Monitor asphalt process
- Maintain batching plant and area
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP282A - Use computers and related programs in the workplace

This unit covers the use of computer equipment and company software programs including selecting the correct programs for use and identifying minor faults in equipment or software. This competency is typically performed by operators working either independently or as part of a work team.

Status Elective

Elements

- Identify computer system and application for work role
- Open file and input/edit data
- Print document
- Save file and exit system
- Use manuals and on line help to solve software problems

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP281A - Deliver customer service

This unit covers the delivery of customer service in the workplace. The competency is typically performed by operators, working either independently or as part of a work team. Customers may be internal or external.

Status Elective

Elements

- Identify customer requirements
- Respond to customer requirements
- Improve customer service

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP280A - Manage conflict at work

This unit covers the management of conflict in a range of situations where personal responsibility is required. This competency is typically performed by all operators, working either independently or as part of a work team, who come into contact with other people either directly or indirectly.

Status Elective

Elements

- Identify potential sources of conflict
- Identify range of alternative approaches
- Resolve conflicts

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP274B - Undertake minor maintenance

This unit covers the undertaking of minor maintenance activities on plant and equipment. It does not cover activities normally requiring a traditional trade training. This competency is typically performed by operators working either independently or as part of a work team.

Status Elective

Elements

- Identify maintenance requirements
- Prepare for maintenance activity
- Perform maintenance activity
- Record maintenance activity

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP273A - Receive and despatch materials

This unit covers the handling of materials by an operator as an adjunct to the job of making product. It applies to a limited range of materials. It is NOT intended to be an alternative warehousing competency. This competency is typically performed by operators working either independently or as part of a work team.

Status Elective

Elements

- Move materials into storage
- Move/despatch materials from storage/production
- Complete materials movement records

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP272A - Identify and act upon hazards in the workplace

This unit covers all operations related to the handling of industrial chemicals and materials in accordance with enterprise procedures. This competency is typically performed by an operator working independently or in a team. This competency has a prerequisite.

Status Elective

Elements

- Use personal protective equipment
- Work safely with industrial chemicals/materials
- Implement and monitor the enterprise procedures for identifying hazards and assessing risk
- Implement the enterprise procedures for controlling risk and dealing with hazardous events

Prerequisites:

This unit of competency has prerequisite of PMAOHS100C Follow OHS procedures.

PMCSUP271B - Operate bulk materials handling equipment

This unit covers the operation of the range of equipment used to store and convey bulk, particulate materials. It includes the recognition, operation and troubleshooting of these routine plant items.

Status Elective

Elements

- Operate conveyors
- Manage bulk material storages
- Rectify problems
- Carry out maintenance procedures
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP181A - Work in a team

This unit covers the organisation of team activities to fit in with the scheduling of production to meet operational guidelines. This competency is typically performed by operators who work within a team structure with limited discretionary powers.

Status Elective

Elements

- Identify work activities
- Organise daily work plan
- Participate in a team

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP180A - Organise self

This unit Setting of individual work priorities to fit in with the overall schedule of production to meet operational requirements.

Status Elective

Elements

- Identify work activities
- Organise daily work activities
- Follow work plan

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS207A - Heat accelerate the curing of precast concrete

This unit This competency covers high and low pressure steam curing of precast concrete pipes and products, including identifying and isolating equipment malfunctions.

Status Elective

Elements

- Prepare the equipment for production
- Operate equipment
- Monitor and record operation
- Rectify routine problems
- Shut down equipment
- Prepare equipment for maintenance
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP170B - Shift materials safely

This unit covers the safe manual handling of products and materials as part of the various manufacturing processes. This competency is typically performed by operators and store personnel working either independently or as part of a work team.

Status Elective

Elements

- Plan operations
- Manually transfer products or materials
- Store and/or stack products or materials
- Resolve problems

Prerequisites:

This unit of competency has no prerequisites.

TDTD1097B - Operate a forklift

This unit involves the skills and knowledge required to operate a forklift, including checking forklift condition, driving the forklift to fulfil operational requirements, monitoring site conditions and monitoring and maintaining forklift performance. Assessment of this unit will usually be undertaken within a licensing examination conducted by, or under the authority of, the relevant State/Territory OHS Authority. Persons achieving competence in this unit will need to fulfil all of the relevant State/Territory OHS regulatory requirements concerning the safe operation of forklifts

Status Elective

Elements

- Check forklift condition
- Drive the forklift
- Operate a forklift to handle loads
- Monitor site conditions
- Monitor and maintain forklift performance

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS261B - Deliver concrete to site

This unit covers the efficient delivery of quality concrete to site by road using an agitator or similar.

Status Elective

Elements

- Charge concrete to agitator
- Deliver concrete
- Conform to site protocols
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has prerequisite of TDTC497C

PMCOPS260B - Batch mix concrete

This unit covers the selection and mixing of materials to make different grades and amounts of concrete to meet production requirements following standard procedures. It includes both wet and dry batching. In a typical scenario an operator runs concrete batching equipment to meet the requirements of the production schedule and product specifications. The operator is able to read interpret these requirements and will make necessary adjustments to meet the specifications. This competency is typically performed by operators working either independently or as part of a team.

Status Elective

Elements

- Determine mix requirements
- Batch mix raw materials
- Monitor batch mixing process
- Maintain batch mixing plant and area
- Rectify routine problem
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS258A - Demould concrete products

This unit covers the dismantling, reassembling, lubrication and stock control of complex concrete product moulds

Status Elective

Elements

- Dismantle mould
- Clean and inspect mould
- Reassemble mould
- Lubricate mould
- Maintain mould part stock control
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS257A - Finish casting operation

This unit covers the positioning and fitting of accessories and reinforcement to manufactured concrete products before they have been cured.

Status Elective

Elements

- Adjust and level mould and piping
- Position and fit reinforcement and accessories
- Top up mould and finish
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS256A - Assemble, fabricate and place reinforcement

This unit covers the interpretation of plans ('steel drawings') and the fabrication of reinforcement from pre cut and bent steel and the placement of reinforcing steel cages and assemblies for manufactured concrete products. This competency is typically performed by operators working either independently or as part of a work team. Prerequisites: This unit has no prerequisites. Individual enterprises may choose to add prerequisites and corequisites relevant to their processes.

Status Elective

Elements

- Prepare for fabrication
- Assemble/fabricate reinforcement
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS255B - Conduct benching operations

This unit covers the conducting of concrete benching operations and the production of special purpose concrete drainage components.

Status Elective

Elements

- Determine the shape of the work piece
- Assemble and prepare the work piece
- Rough cast the work piece
- Finish the work piece
- Rectify routine problems
- Inspect and store products
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS254B - Spin concrete pipes

This unit covers the operation of pipe spinning equipment and the production of spun concrete pipes.

Status Elective

Elements

- Assemble and prepare the pipe mould
- Load mould onto pipe spinning equipment
- Spin pipe
- Finish and cure pipe
- Demould pipe
- Inspect and store pipe
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS253B - Finish cured concrete products

This unit covers the finishing of manufactured concrete products after they have been cured.

Status Elective

Elements

- Check product prior to finishing
- Undertake initial finishing as required
- Finish surface as required
- Clean and seal coat as required
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS252B - Cast moulded concrete products

This unit covers the casting of complex concrete product moulds. It also includes the fitting of reinforcement and accessories, the operation of vibrating equipment and the interpretation of drawings/plans.

Status Elective

Elements

- Set up mould and accessories
- Prepare equipment for the mix
- Cast concrete into moulds
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCOPS251B - Finish green concrete products

This unit covers the finishing of manufactured concrete products before they have been cured. It covers all finishes applied to concrete before curing (eg. Exposed aggregate), and assumes that all manufacturing operations up to final vibration and/or screeding the top surface flat have been covered by other competencies

Status Elective

Elements

- Prepare to surface finish green concrete
- Finish surface green concrete as required
- Rectify routine problems
- Control hazards

Prerequisites:

This unit of competency has no prerequisites.

PMCSUP172B - Store materials for production

This unit covers the storing and monitoring of materials

Status Elective

Elements

- Store materials
- Monitor material in storage
- Check stored materials

Prerequisites:

This unit of competency has prerequisite/Corequisite of PMCSUP170B Shift materials safely.
