

PMC30104 – Certificate III in Manufactured Mineral Products

Summary of Competency Units

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

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

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

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

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 Core

Elements

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

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

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

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

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

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

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

PMCOPS205B - Process greenware/green 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

PMCOPS204C - 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

PMCOPS201C - 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

PMASUP390A - Use structured problem solving tools

This unit This competency covers the solving of process and other problems, beyond those associated directly with the process unit, using structured process improvement tools to identify improvements and/or solve problems. The competency is typically performed by an experienced technician, team leader or supervisor. This unit does not cover the solving of problems undertaken as part of the technician's normal role which is covered in the relevant operation competency unit. The plant technician would: use a range of formal problem solving techniques; identify and clarify the nature of the problem; devise the best solution; evaluate the solution; develop an implementation plan to rectify the problem. Generally the plant technician would be part of a team during the solving of complex or systemic problems and would 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 no prerequisites.

Status Elective

Elements

- Identify the problem
- Determine fundamental cause of problem
- Determine corrective action
- Communicate recommendations

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

PMASUP300B - Identify and implement opportunities to maximise production efficiencies

This unit covers the ability to identify, monitor and participate in strategies to improve production efficiencies to meet set targets

Status Elective

Elements

- Identify production performance
- Recognise issues that effect production process efficiencies
- Monitor and measure performance against targets
- Participate in developing methods for improving process efficiencies
- Participate in implementing process improvement strategies

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

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

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

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

PMAPER200C - 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

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

PMAOHS300B - Implement and monitor OHS policies and procedures for a work group

This unit On completion of this unit, the worker will be able to accurately implement and monitor defined OHS policies and procedures for a work group or area, within their scope of responsibilities. The worker will also be capable of coaching the team in participating and contributing to OHS management issues. The worker will be able to perform duties that are required of a safety committee member or safety representative in an organisation. Typically this worker might be a team leader or on the OHS committee.

Status Elective

Elements

- Communicate OHS information for coworkers in team
- Coach co-workers in team
- Facilitate the consultative process
- Implement & monitor enterprise procedures for identifying hazards, and assessing and controlling r
- Maintain and use OHS records

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

PMASUP330B - Schedule production

This unit refers to the scheduling of production to meet operational requirements. It aims at ensuring that operators identify resource requirements, and document, monitor and adjust schedules in response to operational variations

Status Elective

Elements

- Identify resources to meet production requirements
- Document schedules
- Monitor production schedules
- Adjust schedules

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

PMCSUP392A - Perform basic laboratory tests

This unit This competency covers the carrying out of basic laboratory type tests

Status Elective

Elements

- Prepare samples and apparatus
- Perform qualitative tests and procedures
- Perform quantitative tests
- Record results accurately

PMCSUP391A - Collect and prepare standard samples

This unit This competency covers the collection and preparation of standard samples for testing

Status Elective

Elements

- Receive, handle and store samples
- Prepare for sample collection
- Perform physical sample preparation as required
- Perform standard sample preparation as required

PMCSUP381A - Perform purchase control

This unit This competency covers the monitoring and reordering of stock to effectively control the purchase of stock for production.

Status Elective

Elements

- Monitor stock reordering
- Maintain inventory records systems
- Undertake stocktaking and cyclical counts

PMCSUP380B - Oversee team performance

This unit covers identifying the team's goals and timelines, negotiating with the team to allocate tasks and ensuring the goals and timelines are met.

Status Elective

Elements

- Clarify tasks to achieve team goals
- Negotiate allocation of tasks
- Monitor completion of allocated tasks
- Resolve conflicts between team members

PMCSUP292A - Sample and test materials and product

This unit covers the taking of routine samples and the conducting of simple tests. This competency is typically performed by operators working either independently or as part of a work team.

Status Elective

Elements

- Take sample
- Complete test
- Interpret results and take action
- Complete sample and test cycle

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

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

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

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

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

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

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

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

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

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

PMCOPS351A - Produce structural precast concrete

This unit covers the production of structural precast and prestressed concrete products (e.g. beams, girders). It includes reinforcement preparation, and the operation of casting and vibrating equipment. Reinforcement and vibration at this level of competency may be quite complex (e.g. formwork techniques, deflected strands, jig reinforcement, end block reinforcement).

This competency is typically performed by an experienced operator, leading hand or supervisor, and would generally involve engineer consultation.

Status Elective

Elements

- Prepare mould for casting
- Assemble reinforcement cage
- Close mould and test vibrators
- Pour concrete
- Control concrete quality
- Cure product
- Strip and store product
- Respond to problems
- Control hazards

PMCOPS350B - Produce architectural precast concrete

This unit covers the production of architectural precast concrete products. It includes reinforcement (not prestressed) and the operation of casting and vibrating equipment. The product will generally require finishing and/or veneering once cured.

Status Elective

Elements

- Prepare mould for casting
- Prepare reinforcement
- Cast concrete
- Cure product
- Strip and store product
- Respond to problems
- Control hazards

PMCOPS301B - Operate centralised process control systems

This unit covers the operation of centralised control systems, such as a control room, which controls the operations of the whole plant.

This competency is typically performed by an experienced operator, leading hand or supervisor.

Status Elective

Elements

- Navigate through the control panel system
- Monitor control systems
- Identify cause of variation
- Adjust process conditions
- Start up and shut down process
- Respond to problems
- Control hazards

PMCOPS300B - Set up and tune a process

This unit covers the setting up and tuning of equipment or a process. Competence in a relevant operational area is a prerequisite. Dealing with non-routine problems is included. This competency is typically performed by an experienced operator, leading hand or supervisor.

Status Elective

Elements

- Prepare for equipment/change parts installation
- Prepare the process for production
- Set up process
- Tune the process
- Respond to problems
- Control hazards

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

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

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

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

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

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
