

PMA40102 – Certificate IV in Process Plant Technology

Summary of Competency Units

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

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 Core

Elements

- Know when emergency happens
- Follow emergency procedures

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

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

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

PMAOHS400B - Contribute to workplace OHS management system

This unit On completion of this unit, the worker will be able to contribute to the workplace occupational health and safety management system (OHSMS) and ensure that the workplace is, so far as is practicable, safe and without risks to the health of workers.

Status Elective

Elements

- Establish and review procedures for identifying hazards, and assessing and controlling risk
- Establish and review incident procedures
- Implement and review OHS recording system
- Implement and review training program from an OHS perspective

PMAOHS320B - Provide advanced first aid response

This unit deals with the provision of advanced first aid response, life support, management of casualty(s), the incident and other first aiders, until the arrival of medical or other assistance, and provision of support to other providers.

Status Elective

Elements

- Assess the situation
- Manage the casualty(s)
- Coordinate first aid activities until arrival of medical assistance
- Communicate essential incident details

PMAOHS311A - Lead emergency teams

This unit is designed to allow an individual to lead and coordinate an emergency team, including deployment of resources at the scene of an emergency. Typically they would be leading a fire emergency team. A person undertaking this unit of competency would be normally nominated to assume the responsibility of emergency team leader.

Status Elective

Elements

- Assess the nature and extent of
- Effect rescue of personnel at risk
- Confine the spread of emergency

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

PMAOHS221A - Maintain first aid supplies and records

This unit deals with the responsibilities in ensuring that adequate supplies of first aid equipment and resources, and records, are maintained. The person may or may not necessarily be responsible for the ordering and purchasing of equipment and resources, depending upon the workplace organisational structure.

Status Elective

Elements

- Maintain resources
- Record and manage records

PMAOHS401B - Assess risk

This unit On completion of this unit, the worker will be able to identify hazards and operability problems and then analyse them by hazard analysis techniques to assess risk. A team with a broad knowledge of the system and its operation will carry out the analysis. It is expected that the risk assessment processes are already defined for the enterprise and that the risk acceptance criteria have already been established. The team will be steered by engineering experts or risk assessment specialists in the industry. In a typical scenario the worker will take an active role in a HAZOP or similar methodology. They are not expected to lead the HAZOP. This unit is not restricted to HAZOPs and may be applied to other methodologies requiring similar competency.

Status Elective

Elements

- Identify hazards and potential operability problems
- Assess impact of risk and determine alternative strategies
- Assess risk information against established risk criteria in risk management plan
- Develop a risk register
- Establish and maintain procedures for identifying hazards, and assessing and controlling risk

PMAOHS213A - Undertake fire control and emergency rescue

This unit is designed to allow a person to function as a member of an emergency response team in order to meet and respond to fire emergencies in an onshore and/or offshore facility. An ability to work under supervision or alone is required. This competency may be delivered as part of an induction program.

Status Elective

Elements

- Respond to identified fire emergencies
- Deploy fire emergency equipment
- Undertake search of and rescue from affected areas

PMAOPS400A - Optimise operating systems

This unit In a typical scenario, a plant technician in a large plant will optimise a complete production area or a plant technician in a small plant will optimise the entire plant. This would typically be conducted as an optimisation project looking at achieving an improvement in the plant/plant area overall, rather than just an improvement in one or more of its components. This person would typically be a senior technician, team leader or front line manager and may be the lead technician of a shift team. It includes ensuring that: production systems comply with OHS and environmental requirements; process, plant and equipment utilisation is planned, carried out and problems solved to fully meet operational needs, and the production of finished goods meets customer requirements. The optimisation may include materials, process, plant and/or procedure modifications and may be carried out alone or more commonly as part of a team and in liaison with a plant engineer, chemist or other technical expert. Where this is the case, the technician must have had a lead technical role and be able to provide evidence of having performed all elements of this unit of competency themselves. This competency requires the application of detailed operational and process knowledge, including the principles of operation of all major equipment, the chemistry and/or physics of changes to materials occurring during processing, and the processing variables, which control those changes. It embodies significant depth and breadth of technical process knowledge. This unit does not apply to continuous improvement work, as it applies to a larger, integrated area of plant and requires greater technical expertise. Use PMASUP300A - Identify and implement opportunities to maximise production efficiencies for continuous improvement. This unit is primarily about the process performance of the plant and equipment rather than the engineering performance of equipment (see PMBMAINT303B - Identify equipment faults).

Status Elective

Elements

- Analyse and evaluate current performance of plant/plant area
- Develop plan for optimisation action
- Co-ordinate action to optimise process, plant and equipment performance
- Evaluate changes

PMAOHS212B - Undertake first response to fire incidents

This unit This unit of competency is designed to ensure that an appropriate response to fire incidents in onshore and offshore situations/emergencies is achieved. This may be the first response to contain a fire until external emergency services arrive, it may be a response with support from external emergency services, or it may be the total response. In a typical scenario, an incident team member would be involved in controlling and extinguishing fires. Such fires will involve considerable radiated heat, smoke and noxious gasses, and create hazards from hot materials, debris, possible explosions and could occur in on and off shore facilities and may involve: structures; spill fires; jet fires; mobile property; fires involving dangerous goods and/or hazardous materials/processes. This unit applies to fires on the plant/within the site/facility or threatening the boundary of the site/facility. The individual would: advance on fires to apply fire fighting media, often in limited visibility conditions; look for casualties with regard to their safe evacuation from the area. An ability to work under supervision and/or alone is required. This competency requires specialist training such as typically would be given to members of a site incident response team. This unit is based on PUAFIR203A - Respond to urban fire and PUAFIR202A - Respond to isolated/remote structure fire although it is more focused on the special needs of this industry. Prerequisites. This unit has no prerequisites. Note that where fire fighting is likely to require the use of breathing apparatus, competence will also be required in PMAOHS216B - Operate breathing apparatus. Where the fire fighting also involved hazardous materials, then competency in PMAOHS210B - Undertake first response to non-fire incidents may also be required

Status Elective

Elements

- Respond to fire alarm
- Control/extinguish fire
- Participate in ancillary operations
- Conclude firefighting operations

PMAOHS211A - Prepare equipment for emergency response

This unit relates to the preparation of equipment used to respond to emergency situations.

Status Elective

Elements

- Identify emergency equipment
- Inspect and assemble emergency equipment
- Carry out minor servicing of equipment
- Report and record equipment status

PMAOHS210B - Undertake first response to non-fire incidents

This unit This competency unit deals with recognising and controlling an emerging incident, including hazardous materials incidents to provide an appropriate initial response. The person is expected to provide an initial response in order to contain the incident and/or secure the immediate area in order to minimise resultant damages and loss. In this unit it is assumed that the worker is acting according to established workplace procedures. A typical incident would be a loss of containment but may also include process variables being significantly out of range or other types of incident relevant to the plant/site/facility (excluding fire - for fire see PMAOHS212A - Control fire incidents). An ability to work under supervision and/or alone is required. This competency requires specialist training such as typically would be given to members of a site incident response team.

Status Elective

Elements

- Assess level of severity
- Control the incident
- Participate in ancillary operations
- Conclude incident control

BSBFLM402A - Show leadership in the workplace

This unit This unit is equivalent to the original unit BSXFMI402A Provide leadership in the workplace. Frontline management has an important leadership role in the development of the organisation. This will be evident in the way they work with teams and individuals, their standard of conduct and the initiative they take in influencing others. At this level, work will normally be carried out within routine and non-routine methods and procedures which require the exercise of some discretion and judgement. Consider co-assessment with BSBCM402A Develop work priorities, BSBFLM403A Manage effective workplace relationships, BSBFLM404A Lead work teams, and BSBFLM406A Implement workplace information system.

Status Elective

Elements

- Model high standards of management performance and behaviour
- Enhance the organisation's image
- Influence individuals and teams positively
- Make informed decisions

BSATEM201A - Participate in allocation and completion of team tasks

This unit covers identifying team goals, working in a team to achieve the goals and completing own tasks within enterprise timelines.

Status Elective

Elements

- Participate in identifying tasks for team
- Complete own tasks
- Assist others to complete team tasks

PMAOHS220A - Provide initial first aid response

This unit deals with the provision of essential first aid in recognising and responding to an emergency using basic life support measures. The first aider is not expected to deal with complex casualties or incidents, but to provide an initial response where first aid is required. In this unit it is assumed the first aider works under supervision, either individually or as part of a team, and/or according to established workplace first aid procedures and policies.

Status Elective

Elements

- Assess the situation
- Apply basic first aid techniques
- Communicate details of the incident

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

PMASUP410A - Develop plant documentation

This unit This unit of competency covers the development, establishment and evaluation of plant documentation in response to identified information requirements including the development of workplace documents for the introduction of new systems, processes, equipment and record keeping requirements. The competency unit applies to a wide range of plant documentation. This unit does NOT apply to the participation in reviewing workplace documentation, which is covered by PMASUP210A. Typically, the employee would: investigate the need for new plant documentation; determine operating principles and best practice in consultation with others; draft plant documentation validate and modify plant documentation in response to feedback; communicate changes and amendments. Prerequisites. This unit has the prerequisites of: PMASUP210A - Process and record information.

Status Elective

Elements

- Identify information need/deficiency
- Develop plant documentation
- Communicate changes to plant documentation

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

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

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

PMASUP240A - Undertake minor maintenance

This unit In a typical scenario a plant technician does minor maintenance activities on the plant and equipment being operated. For instance the pressure drop across a filter unit may be high, indicating the filter cartridge needs changing. The plant technician takes the filter unit out of operation, cleans the unit, uses the correct spanner to open the lid, installs a fresh cartridge, closes the unit using the spanner again, then cleans up the area and disposes of the spent cartridge. The unit does NOT apply to activities requiring trade training. The plant technician would: be aware of and contribute to a safe working environment; identify and report operational problems to their supervisor/control room operator undertake minor maintenance activities including gaining and following safety clearances, use of tools, planning and area clean-up (in accordance with position description). The plant technician could operate independently or as part of a team running a plant. The plant technician would be expected to be capable of performing all parts of this unit. At all times they would be liaising and co-operating with other members of the team.

Status Elective

Elements

- Identify maintenance requirements
- Prepare for maintenance activity
- Use appropriate tools, materials, methods and procedure
- Perform maintenance activity
- Test equipment
- Record maintenance activity

PMAOHS410B - Manage emergency incidents

This unit This unit covers the management of an isolated facility (on-shore or off-shore) during an incident. The person involved would typically be the facility manager. Outside emergency services and support may not be readily available. In a typical scenario, an individual in charge of a facility such as a production unit, chemical plant, platform or floating storage and off-loading facility would, during an incident, assume duties particular to the incident. They would be responsible for activities applying to both the company and the personnel on the facility at that time. Typically the person would manage the incident from the control room or similar central area, which would become the 'incident control centre'. From this centre, they would direct the incident team leader and workplace incident team who would be working at the site of the incident. Key aspects of the competency include: dealing with a wide range of incident response scenarios communicating with organisational head office or operations centre; overseeing the wellbeing of all personnel on the facility; ensuring that as appropriate emergency shutdown and re-start measures are in place ensuring appropriate procedures are complied with the individual may: assess the magnitude and impact of the incident; gather and coordinate all the necessary incident response personnel and equipment and direct their implementation ensure the incident control centre is adequately and properly manned; manage facility incident response operations; ensure communication links are established with appropriate organisations assess the situation and if necessary, give instructions to evacuate or abandon the facility generally the individual would be in control or command of the facility or be required to deputise in this role. They would be expected to take independent action where required. At all times they would be liaising and cooperating with other appropriate company personnel and members of the incident team. Prerequisites. This unit has prerequisites of: PMAOHS210B - Undertake first response to hazardous and non-hazardous incidents; PMAOHS212B - Undertake first response to fire incidents

Status Elective

Elements

- Assess the incident
- Alert key personnel
- Implement incident response strategies
- Manage emergency action
- Restore facility to operation following incident resolution
- Reconstruct and report on incident

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

BSATEM101B - Participate in a team to achieve designated tasks

This unit covers completing allocated tasks in a team context within enterprise timelines. This unit can be assessed alone or in combination with other units making up a job role.

Status Elective

Elements

- Complete allocated tasks

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

PMAOPS450A - Solve colour problems

This unit This unit applies a knowledge of colour to solving colour problems both for external customers and in the plant (i.e., colour is/appears to be wrong). In a typical scenario, a technician receives a complaint arising from either an external customer or an internal customer, such as a production manager or team leader. The complaint concerns colour, which is not as the complainant expected it to be. The technician gathers the appropriate data, then makes an analysis as to the cause of the problem and makes recommendations as to how this problem might be rectified. The complaints may include: the colour as made does not match the standard; the colour as provided does not match the standard the colour initially appeared correct, but is now unsatisfactory. The technician would: clarify the problem; analyse problem cause(s); recommend a solution to the problem. Generally the technician would work alone for this unit, although the ability to communicate with all internal and external customers and stakeholders (simply referred to as 'customers') is vital.

Status Elective

Elements

- Assist customers to articulate problem
- Analyse possible problem cause(s)
- Satisfy customer needs

PMAOPS401B - Trial new process/product

This unit

Status Elective

Elements

- Contribute to the selection of equipment/process conditions
- Prepare for trials
- Conduct test runs/trials
- Evaluate results and identify modifications

PMBCOMP201B - Use computers in the workplace

This unit This competency 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. It applies to all sectors of the industry. This competency is typically performed by all operators working either independently or as part of a work team. Prerequisites. This competency has no prerequisites.

Status Elective

Elements

- Identify information equipment and system
- Set up, input and retrieve files/data
- Present files/data, shutdown and exit system

PMAOHS420A - Develop first aid procedures and manage resource

This unit This competency unit encompasses the management of procedure development and the implementation of effective systems for human and physical resources to ensure that first aid can be effectively and efficiently provided in the workplace.

Status Elective

Elements

- Co-ordinate and implement effective organisational systems
- Implement effective first aid training and practice
- Maintain up-to-date professional development of knowledge and skills

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
