



Australian Government

Department of Education, Employment and Workplace Relations

HLTPOP218C Monitor and maintain water supply

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit aims to describe the competencies needed to identify the basic way in which water supply systems function, and the strategies needed to maintain water supply systems in the community

Application of the Unit

Application

Plumbing work must only be performed by a person authorised by registration or licence granted by the relevant State or Territory regulatory authority under legislation

As certification may vary between States and Territories workers should consult with the relevant regulatory authority before undertaking this work

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills

This unit contains Employability Skills

Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in italics are elaborated in the Range Statement.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Identify *components of the water supply system* in the community

- 1.1 Identify household *plumbing design and fixtures* and the way in which water supply enters the house or building along internal plumbing and pipes to taps and appliances
- 1.2 Identify components of the water supply system in the community
- 1.3 Identify *problems* that can occur with water supply systems and household plumbing and fixtures

2. Monitor and maintain the water supply system

- 2.1 Identify *strategies* within the workers own roles and responsibilities to prevent the transmission of disease as it relates to water supply
- 2.2 In conjunction with supervisor develop a *work plan* in relation to the identified strategies to be used
- 2.3 Implement strategies in accordance with the plan
- 2.4 Report any difficulties or problems to supervisor in accordance with organisational policies and procedures
- 2.5 Refer any problems or difficulties that are outside of area of responsibility or expertise to *key people* or agencies

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Essential knowledge:

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes knowledge of:

- Basic knowledge and understanding of the water and sewerage plans for the community if available
- Knowledge and understanding of how to monitor water supply (what to look for) and the various signs of possible contamination
- Knowledge and understanding of the causes of water contamination (organic and inorganic) and how it can be prevented
- OHS requirements in relation to working with water supply
- Various problems that can happen with household plumbing, water supply systems and why, e.g. people not reporting or fixing leaking taps or toilet cisterns which can then fill up septic tanks or sewerage lagoons, people using the area around the water supply source for recreation uses, etc.
- Various sources of water and how water is accessed in the community, e.g. bore, surface water, spring water, rock catchments, soaks, dams, rain water tanks, etc.
- Very basic knowledge of water supply contaminants, e.g. dissolved salts, suspended solids, germs and parasites

Essential skills:

It is critical that the candidate demonstrate the ability to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes the ability to:

- 'Check for signs' of potential problems
- Apply monitoring and recording skills, i.e. checklists, notes etc.
- Apply problem solving skills in relation to identifying potential problems that can occur with water supply systems, and household plumbing and fixtures

REQUIRED SKILLS AND KNOWLEDGE

- Demonstrate understanding of how the water supply and water supply systems function
- Effectively network and communicate with the employing organisation, householders, community members, key people and outside agencies
- Monitor water supply and water supply systems and check for signs of possible contamination
- Monitor water supply and water supply systems and check for signs of potential problems
- Use a phone and fax

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate this competency unit:

- The individual being assessed must provide evidence of specified essential knowledge as well as skills
- Consistency in performance should consider the workers ability to be able to monitor water supply and water supply systems and check for signs of potential problems
- This needs to occur more than once and over a period of time

EVIDENCE GUIDE

- Access and equity considerations:*
- All workers in the health industry should be aware of access and equity issues in relation to their own area of work
 - All workers should develop their ability to work in a culturally diverse environment
 - In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
 - Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities
- Context of and specific resources for assessment:*
- This unit is best assessed on the job or in a realistic workplace setting
 - Access to:
 - a phone and fax when required
 - tools, materials and equipment for basic repairs and maintenance tasks if necessary
 - simulation of realistic workplace setting for assessment

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

RANGE STATEMENT

Plumbing design and fixtures may include:

- Pipes, e.g. copper and poly
- Indoor and outdoor taps
- Bath, shower
- Water trough
- Hand basin
- Kitchen sink
- Toilet cistern
- Stop cock or cistern cock
- Breech piece to connect hot and cold water
- Hot water unit
- House connection, isolation valve and water metre

Identify components may be:

- Discussing the water supply system lay out for the community with the relevant water authority, Essential Services Officers, Environmental Health Officers, etc.
- Obtaining a water and sewerage plan for the community if available, and with support identify the basic components of the system

Components of a water supply system may refer to:

- Main, rising main, pumping stations, pumps, reticulation main, drain points, air release valves, treatment plant or storage tank, non return valve

Problems that can occur may include but are not limited to:

- Leaking water supply pipes or valves because of cracks, corrosion or poor installation
- Broken down or worn out pumps
- Corrosion, cracks and leaks in water/storage tanks
- Excessive organic matter/sludge collecting on the bottom of tanks
- Broken lids on tanks
- Aggressive water supply, particularly in tropical areas, e.g. may need special plastic fittings and more maintenance of all parts of the water supply
- Leaking taps
- Leaking toilet cisterns
- Non functioning hot water service

RANGE STATEMENT

Identify strategies within the workers own roles and responsibilities may include:

- Education/health promotion to householders and community members as part of job role
- Repairs and maintenance to household and community plumbing and fixtures, e.g. fixing leaking taps, maintaining toilet cisterns, etc.
- Monitoring water supply and checking for signs of possible contamination either at the source such as a river or bore, in storage such as elevated tanks, or in the pipe system which delivers water to the user
- Maintaining water supply system, i.e.: ensuring that all joints in the pipe system are maintained free of leaks and that any leaks or broken pipes are reported/repared as soon as possible. Ensuring that community water tanks or domestic rain water tanks have proper fitting lids, be clean, not leaking and free from animals such as frogs, etc.

Develop a work plan may include:

- Diary planner/timetable
- Prioritising tasks
- Organising task check lists

Report may be:

- Verbal in either first language or English
- Written in either first language or English
- By showing supervisor the problem

Referrals may be:

- Verbally in either first language or English depending on the target group and whether or not the referrals take place internally within the community, or outside the community to other key people or agencies
- Written correspondence, i.e.: fax, letters, etc.
- Photos of the problem/issue
- Video recording the problem/issue

RANGE STATEMENT

Problems that may be outside of the workers area of responsibility include some of the following:

- Building development near water supply
- Septic tanks and leach drains that have been installed too close (less than 100m) from the water supply
- Low water pressure as a result of inappropriate water system design, or an increase in housing development in the community

Key people or agencies may include:

- Community council
- Environmental Health Officers
- Essential Services Officers
- Relevant water authority
- Others involved with maintenance of water supply systems

Unit Sector(s)

Not Applicable