



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **HLTPOP217D Monitor and maintain sewerage or effluent systems**

**Release: 1**

## HLTPOP217D Monitor and maintain sewerage or effluent systems

### Modification History

HLT07 Version 4	HLT07 Version 5	Comment
HLTPOP217C Monitor and maintain sewerage or effluent systems	HLTPOP217D - Monitor and maintain sewerage or effluent systems	Unit updated in V5. ISC upgrade changes to remove references to old OHS legislation and replace with references to new WHS legislation. No change to competency outcome.

### Unit Descriptor

**Descriptor**

This unit aims to describe the competencies needed to identify the basic way in which sewage lagoons function, and the strategies needed to maintain sewerage/effluent 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 sewerage or effluent disposal system* in the community

1.1 Identify household plumbing design and fixtures and the way in which effluent and sullage (grey) waste leaves the house or building to go out to the waste disposal system

1.2 *Identify components* of the sewerage or effluent waste disposal system in the community

1.3 Identify *the way in which the sewage receives its treatment* in the community

1.4 Identify problems that can occur with sewerage or effluent systems, and household plumbing and fixtures

**ELEMENT****PERFORMANCE CRITERIA**

2. Monitor and maintain the sewerage or effluent disposal system

- 2.1 Identify *strategies* within the workers own roles and responsibilities to prevent the transmission of disease as it relates to sewerage and effluent disposal
- 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

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
- Basic requirements necessary for sewerage ponds to work effectively and efficiently and how to monitor sewerage/effluent systems for signs of potential problems
- WHS requirements in relation to working with sewage and sewerage systems
- Sewerage disposal strategies for communities or outstations without a sewerage disposal system (on site/septic system or sewerage/effluent system) e.g. grease trap and soakage pit, pit toilets, shallow trench latrines etc.
- Various problems that can happen to household plumbing, effluent systems and why e.g. people putting things other than toilet paper down the toilet, people putting food scraps down the sink
- What sewage is and the difference between effluent (black) and sullage (grey) water

### *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 sewerage or effluent systems, and household plumbing and fixtures
- Demonstrate understanding of how the sewerage/effluent systems function
- Effectively network and communicate with the employing organisation, householders, community members, key people and outside agencies
- Monitor sewage lagoons and effluent systems and check for signs of potential problems
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues

- 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 sewage lagoons and effluent systems and check for signs of potential problems
- This needs to occur more than once and over a period of time

*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

## EVIDENCE GUIDE

*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
  - fencing materials if required
  - 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.

*Plumbing design and fixtures may include:*

- Bath , basin and shower recess
- Drain or floor waste gully
- Kitchen sink
- Grease traps
- Water trough
- Toilet and toilet vent
- Sewer pipe
- Rod end
- Inspection openings
- Disconnecter traps
- 'S' or 'P' traps

## RANGE STATEMENT

*Identification of components may be by:*

- Discussing the effluent 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 identifying basic components of the system

*Components of a sewerage or effluent system may refer to:*

- Sewer connections, man holes, sewer pipes, pumping station, final effluent pond/lagoon etc.

*The way in which the sewage receives its treatment in the community could be either by:*

- Septic tanks at each building or household

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

- Tree roots growing into main sewer pipe joints
- Soil blocking broken sewer pipes
- Lagoons not being adequately maintained
- Broken fences around lagoons
- Kitchen sink blocked by food scraps etc.
- Flushing toilet bowl blocked
- Flushing toilet cistern not working
- Grease trap lids not properly sealed allowing smell and cockroach breeding
- Leaking taps and toilet cistern which can fill up septic systems or sewerage lagoons

## 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 or community plumbing and fixtures to ensure that all faulty, blocked, damaged, broken or worn out parts are mended or replaced as soon as possible
- Monitoring sewage lagoons and out fall, and checking for signs of potential problems, i.e. bad smells, still areas on the surface of the pond(s), water which is not a light flecked green colour, excessive vegetation growth in and around the pond(s) etc.
- Maintaining sewerage systems and sewage lagoons, e.g. removing rubbish/objects from the water, maintaining fences and signs, unblocking sewer pipes (need to liaise with relevant water authority before adopting any of these strategies)

*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, e.g. fax, letters, etc.
- Photos of the problem/issue
- Video recording the problem/issue

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

- Eroded or broken lagoon banks
- Lagoon banks which are not angled at 15-20 degrees
- Water depth not being maintained at one metre

**RANGE STATEMENT**

*Key people or agencies may include:*

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

**Unit Sector(s)**

Not Applicable