

Unit of Competency CPCPPS5014

Locate and maintain piping systems

Application

This unit specifies the skills and knowledge required to locate and maintain piping systems.

The unit includes a range of applications including pipe freezing equipment and procedures, sewer and drain camera equipment and procedures, under-road boring equipment and procedures, robotic sewer repair, chemical grout systems and procedures and high-pressure drain cleaning equipment and procedures.

The unit applies to consultants or supervisors in plumbing services and hydraulics on new or existing sites.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Prerequisite Unit

Nil.

Elements and Performance Criteria

1. Evaluate design parameters.	1.1	Establish scope of work for locating and maintaining hydraulic and plumbing systems.
	1.2	Determine relevant design requirements from relevant Australian standards, codes, plans, specifications and in accordance with work health and safety (WHS) and environmental requirements.
	1.3	Identify and plan tasks in conjunction with others involved in or affected by the work and statutory and regulatory authorities' requirements.
	1.4	Evaluate impact of works on buildings and structural elements and underground services.
	1.5	Analyse and apply the National Construction Code (NCC), statutory and regulatory requirements and Australian standards for the scope of works.
	1.6	Apply sustainability principles and concepts throughout the design process.
	1.7	Establish performance requirements considering safety of system users or building occupants.
	1.8	Interpret manufacturer requirements, trade and technical manuals to comply with design parameters.
	1.9	Conduct cost-benefit analysis comparing a range of pipe materials and system designs.
2. Plan and assess systems.	2.1	Identify and analyse applications of maintaining hydraulic and plumbing systems.
	2.2	Specify approved materials, methods and installation requirements for maintaining hydraulic services.
3. Prepare documentation.	3.1	Prepare a client brief for the preferred system of maintaining hydraulic and plumbing systems.
	3.2	Prepare plans and specifications for a range of scenarios relating to

	maintaining hydraulic and plumbing systems.
3.3	Prepare testing and commissioning schedule.
3.4	Produce operation and maintenance manual.

Foundation skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPCPPS5014A Locate and maintain piping systems.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCPPS5014 Locate and maintain piping systems

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- preparing a client brief, plans and specifications, testing and commissioning schedule and producing an operation and maintenance manual for each of the following:
 - o pipe-freezing of an existing 100 mm copper water mains requiring a new 100 mm tee connection
 - o a sewer line inspection using closed-circuit television (CCTV) drain camera equipment through a sewer inspection point and a sewer manhole and the removal of a blockage with high-pressure drain cleaning equipment
 - o use of under-road boring equipment to install a 150 mm sewer line across a local council road containing a minimum of two lanes in width
 - o an approved trenchless robotic and chemical repair system to incorporate a straight-line section of 100 mm sewer pipe and a 100 mm sewer junction repair.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- common terminology and definitions used in the specification of piping system maintenance procedures
- nature of materials used and effects of performance under various conditions
- requirements of state and territory regulatory authorities, Australian Standards and manufacturer specifications, including hazards identified in relation to devices and systems used
- applications for pipe and servicing locating equipment
- uses and limitations of pipe-freezing equipment
- uses and limitations of sewer and drain cameras
- uses and limitations of under-road boring equipment
- uses and limitations of trenchless, robotic sewer repair and chemical grout systems including re-lining
- uses and limitations of high-pressure drain cleaning equipment
- safety procedures relating to maintaining hydraulic and plumbing systems.

Assessment Conditions

Assessors must satisfy the requirements for assessors listed in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

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