



Australian Government

CPCLOC3007 Control excavations in the vicinity of utility assets

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Modification History

Release	Comments
1	This unit of competency was first released in CPC Construction, Plumbing and Services Training Package Release 11.0.

Application

This unit describes the skills and knowledge required to plan, control and monitor excavations in the vicinity of utility assets to ensure their integrity is not compromised.

It applies to those working in operational roles in utility location work. They generally work under supervision and hold responsibility for interpreting plans, accessing resources to locate and protect utility assets during excavation.

It includes applying relevant legislation, code of practice, regulations and workplace procedures, and completing work and relevant documentation.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories and utility operators. It is a requirement to check with the relevant body before applying this unit.

Licensing/Regulatory Information

A White Card must be attained when working on a construction site.

Pre-requisite unit(s)

CPCLOC3006 Prepare for ground disturbance activity

Competency field(s)

Utility Locating

Unit sector(s)

Construction

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

1. Plan for ground disturbance in the vicinity of utility assets.	1.1 Determine workplace safety, environmental and sustainability energy practices for the site by communicating with stakeholders and relevant person(s). 1.2 Obtain job requirements and interpret plans, specifications and instructions. 1.3 Discuss job requirements and workplace procedures with relevant person(s) to determine and confirm work schedule and were individual activity fits into team responsibilities. 1.4 Identify and assess hazards, workplace safety and environmental risks in accordance with work health and safety (WHS) standards and exclusion zone requirements. 1.5 Implement and prioritise control methods to mitigate risks in accordance with workplace procedures. 1.6 Check that all required work permits are obtained and determine scope of responsibility under the relevant job requirements. 1.7 Identify and access equipment and tools needed to carry out work activities. 1.8 Confirm and access material plans and resources required for the work in accordance with marking requirements and workplace procedures. 1.9 Access personal protective equipment (PPE) and ensure they are fitted correctly on the worksite. 1.10 Obtain site relevant instructions and permits from the utility asset owner/operators.
2. Monitor and control excavation in the vicinity of utility assets.	2.1 Select and use tools and equipment and use in accordance with workplace procedures, manufacturer specifications and asset owner/operators' work permits and instructions. 2.2 Conduct work activities within the agreed timeframe, to industry standards and in accordance with workplace procedures and WHS standards. 2.3 Determine correct response to alarms, codes and hazard warnings and conduct work activity accordingly. 2.4 Monitor operating conditions of equipment in accordance with utility and workplace procedures, and manufacturer specifications. 2.5 Conduct excavation control in accordance with relevant legislation and requirements. 2.6 Continually confirm the location of utility assets during work activities in accordance with workplace procedures

	considering the limitations and tolerances of underground service information. 2.7 Identify faults and operational conditions affecting pipelines or utility assets and report to relevant person(s) in accordance with workplace procedures. 2.8 Identify and incorporate reporting unplanned events and non-routine issues in accordance with workplace procedures. 2.9 Complete appropriate potholing techniques in line with utility owner/operator instructions and workplace procedures.
3. Complete work and relevant documentation.	3.1 Conduct quality and safety checks in accordance with industry standards and workplace procedures. 3.2 Comply with asset owner/operator work completion instructions in accordance with workplace procedures. 3.3 Clean the worksite and make it safe in accordance with workplace procedures. 3.4 Check and clean and store tools, equipment and surplus resources/materials in accordance with workplace procedures. 3.5 Complete documentation, including incident reporting, if relevant in accordance with workplace requirements.

Foundation skills

Skill	Description
Numeracy	Adjusts activities given tolerances of plan details and equipment.
Oral communication	Acquires details and reports problems and/or hazards to a supervisor or service and/or utility owner/operator.
Reading	Identifies, interprets and implements requirements from at times complex workplace procedures, documentation, legislation and regulations
Writing	Records information relating to underground utility.

Range of conditions

N/A

Assessment Requirements for CPCLOC3007 Control excavations in the vicinity of utility assets

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- control excavations in the vicinity of utility assets on two occasions.

During the above, the candidate must:

- access, apply and retain underground utility standards and site documentation
- access plans and resources required to identify scope and utility assets in the field
- implement the requirements, procedures and techniques to control excavations to protect utility assets, including:
 - obtaining work permits
 - selecting and using required equipment
 - inspecting and testing equipment
 - communicating to clarify instructions and information
 - confirming role in the team
 - conducting quality and safety checks
 - monitoring excavation control in the vicinity of utility assets
 - demonstrating appropriate potholing techniques
 - dealing with unplanned events and non-routine issues
 - cleaning worksite
 - completing documentation
- work with others to meet required outcomes, including:
 - using a range of communication techniques and equipment
 - complying with written and verbal reporting requirements and procedures
 - reporting risks and hazards
 - mitigating environmental risks
 - maintain a clean worksite
- employ required techniques, plant and equipment to search for services and utilities
- identify services and owner/operators of that service.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- utility types, including:
 - communication and data utilities
 - electricity utilities
 - water utilities
 - sewer and drainage utilities
 - gas utilities
 - petroleum and chemical pipelines
 - other specialised or local infrastructure
- safety features of personal protective equipment (PPE), and when and how it should be used
- key indicators of work quality and accuracy
- processes for planning and organising work activities
- safety data sheets and materials handling methods, including:
 - job safety analysis (JSAs)
 - job safety and environmental analysis (JSEAs)
 - safe work method statements (SWMSs)
- excavation equipment including:
 - marking equipment
 - tools
 - metallic and non-metallic locating equipment
 - fault checking and calibrating locating equipment
- manufacturer specifications for excavation equipment
- communication processes in the control of excavations, including:
 - pre-field communication with stakeholders to request plans
 - on-site communication to coordinate practices, clarify instructions and safety issues
 - marking and visual communication
 - reporting and documentation
 - post-project communication for final reports, feedback loops and record keeping
- key risks relating to underground utility services, including those associated with:

- traffic
 - live services and abandoned services
 - confined spaces
 - asbestos
 - contaminated waste
 - falls
 - locating near other works in progress
 - manual handling
- key standards, policies and procedures, legislation and established requirements for identifying, locating and protecting underground services, including those for:
 - exclusion zones
 - obtaining work permits
 - on-site inductions
 - equipment operations and monitoring
 - fault checking and calibrating locating equipment
 - risk and hazard reporting
 - utility asset location marking
 - site isolation and traffic control
 - excavation and finished surfaces reinstatement
 - obtaining and preparing the required information from the utilities or the appropriate supporting organisations
 - damage to services and utilities
- key factors affecting work activities, including:
 - limitations and tolerances of the underground utility information
 - types of services, utilities and providers
 - working in a road reserve
 - potholing
 - equipment types, characteristics, technical capabilities and limitations
 - asset specific clearance distances
 - awareness of overhead utility assets
 - non-destructive excavation methods for exposing underground services.

Assessment Conditions

Assessors are responsible for ensuring that the candidate demonstrating competency has access to:

- Australian Standards
- underground utility standards
- appropriate site, documents, equipment and personal protective equipment (PPE) currently used in industry
- requirements of workplace policies, procedures and plans.

Mandatory Workplace Requirements

Assessment of performance evidence may be in a workplace setting or an environment that accurately represents a real workplace.

Unit Mapping Information

Previous Code and Title	Equivalence	Comments
	Newly created	This unit has been created to address a skill or task required by industry that is not covered by an existing unit of competency

Links

Companion volumes, including implementation guides, are found on the national training register - <https://training.gov.au/training/details/CPC>.