



Australian Government

NWPNET016 Inspect sewer or stormwater line

Release: 1

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Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to NWP331B Inspect conduit and report on condition and features. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes

Application

This unit of competency describes the skills required to plan, prepare and conduct an inspection of gravity sewer or stormwater conduits, using specialised CCTV camera and transport systems, and reporting on observed defects and other features of the conduit in accordance with the industry code and job specifications. The ability to interpret technical information, identify and assess hazards, operate and maintain specialised technical equipment and to produce computer generated reports on the condition and features of the conduit inspected is essential to performance.

This unit applies to those working as operators with a specific responsibility for inspecting and reporting on the condition of operational gravity sewers and stormwater conduits and new or rehabilitated sewers or stormwater conduits; and operating and maintaining specialised CCTV inspection equipment. This unit may also be applied to the inspection of other types of conduit system.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those related to WHS and manufacturer specifications.

Those undertaking this unit would work under indirect supervision, while performing routine tasks in a familiar context, ensuring minimum damage to the environment.

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

Competency Field

Networks

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for conduit inspection	1.1 Identify the purpose of the inspection and the location, size, type and extent of the conduit assets. 1.2 Determine the inspection method and equipment to be used. 1.3 Conduct and document hazard identification and risk assessment and implement appropriate risk control processes. 1.4 Establish and implement asset isolation, flow management plans and inspection schedules in consultation with the system operator. 1.5 Arrange for preparation of the conduit and site for inspection.
2. Operate and maintain equipment	2.1 Set up, calibrate and operate equipment to suit the size, type and conditions of conduit according to relevant industry codes and specifications. 2.2 Examine, record and report features of the conduit. 2.3 Conduct routine maintenance of equipment. 2.4 Diagnose and correct equipment malfunction. 2.5 Recognise and respond to potential risks to equipment and/or system operation.
3. Identify and code defects and other features observed during conduit inspection	3.1 Identify and code structural defects, service conditions and other features of the conduit. 3.2 Record asset and inspection data using approved data capture software. 3.3 Investigate and report unrecognisable defects, service conditions or other features. 3.4 Identify a conduit at risk of imminent failure and communicate details to the system operator or owner. 3.5 Identify and report defects or malfunctions of access structures.
4. Withdraw inspection equipment and reinstate system operation	4.1 Clean and inspect equipment for damage during and after withdrawal from the conduit. 4.2 Reinstate system operation according to asset isolation, flow management plan and specifications. 4.3 Restore work site to meet organisational, safety, environmental, and property owner requirements.

5. Review, record and report work	5.1 Check inspection data and video records prior to removal of equipment for completeness, quality and accuracy. 5.2 Compile conduit inspection reports and present to the client in the required format. 5.3 Complete job documentation and communication according to asset owner or operator and statutory requirements.
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Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP331B Inspect conduit and report on condition and features.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPNET016 Inspect sewer or stormwater line

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- identifying structural defects, service conditions and other features in a range of different conduits
- applying industry inspection reporting code requirements
- using data capture software
- operating CCTV camera controls and recording systems
- accessing and interpreting GIS data, interpreting plans, maps, house service diagrams, instructions, specifications and standard operating procedures
- using safety equipment and personal protective equipment
- using tools and instruments associated with camera/transport operation, maintenance and calibration
- planning, preparing and conducting an inspection of gravity sewer or stormwater conduits
- preparing for conduit inspection
- identifying the location and extent of the work, methods to be applied, and equipment, including safety equipment, to be used
- assessing risks and preparing for hazards
- implementing appropriate isolation and inspection procedures
- calibrating equipment for conduit inspection
- operating and maintaining equipment
- conducting inspections and identifying and coding conduit defects and condition
- recording data manually, or using approved software program
- investigating and recording anomalies
- reporting conduit at risk of failure
- removing equipment and reinstating system operation

- restoring worksite
- completing and processing inspection information according to organisational procedures

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- industry inspection reporting code
- data capture, recording and reporting software
- WHS
- confined space entry procedures
- typical traffic control arrangements
- potential hazards and risk factors of operational processes
- equipment operation
- techniques of operation in unusual situations
- capabilities of camera, lights and transport system
- routine maintenance and calibration requirements of camera, lights and transport system
- effects of weather and conditions on operation of site or plant
- environmental aspects of operation and installation
- features of conduits used in Australia for gravity sewer and stormwater construction over the last 100 years
- construction and operation of sewerage and stormwater systems

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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