



Australian Government

MSMWJ305 Operate a drain cleaning system

Release: 1

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Modification History

Release 1. Supersedes and is not equivalent to MSMWJ302 Operate a drain cleaning system. Unit code changed. Application amended. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed.

Application

This unit describes the skills and knowledge required to autonomously operate a drain cleaning system for cleaning, unblocking or removing debris from wastewater or drainage infrastructure. It covers stormwater, wastewater and trade/industrial waste.

This work is undertaken using equipment that meets the requirements of a Class B system as defined by *AS 4233.1 High pressure water jetting systems – Part 1: Safe operation and maintenance*, and in compliance with *Safe Work Australia Guide for Managing Risks from High Pressure Water Jetting*, its state/territory equivalent (where one exists) or the authorised replacement.

The worksite may be a client's site, a site belonging to the organisation or a public space.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia, including requirements for refresher training, must be applied.

Pre-requisite Unit

Nil

Competency Field

Operations

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Interpret and follow job requirements 1.2 Complete site access and work control requirements 1.3 Identify known site hazards and required hazard controls 1.4 Confirm work team members comply with site and job competency requirements

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.5 Lead toolbox meeting or similar 1.6 Select, check and load consumables, equipment and personal protective equipment (PPE) required for job 1.7 Complete pre-work documentation to job requirements
2. Use issued drawings	2.1 Confirm all drawings and drawing versions and validate against job requirements 2.2 Identify dimensions and check all drain cleaning equipment is appropriate for job
3. Complete on-site preparation	3.1 Confirm job scope, location and requirements with job owner or contact person 3.2 Communicate with site authorities and obtain correct work permits in accordance with site procedures 3.3 Review and confirm job scope on-site with team 3.4 Read, interpret and follow job-related documentation 3.5 Check direction of flow and walk the route (upstream/downstream) 3.6 Define work area and confirm required exclusion zones 3.7 Confirm that required quantity and quality of water is available 3.8 Confirm available waste disposal is adequate for all waste generated by job 3.9 Recognise and control job and site-specific hazards 3.10 Identify competency of other team members and degree and means of required supervision 3.11 Communicate any additional job needs back to base
4. Set up drain cleaning job	4.1 Prepare worksite to comply with job, safety and environmental requirements 4.2 Inspect, assemble and check drain cleaning equipment in accordance with drain cleaning procedures 4.3 Complete pre-start on system, test emergency shut-off and have equipment repaired prior to starting job if not functional 4.4 Communicate with other work groups as appropriate to ensure safe and efficient operation of drain cleaning equipment 4.5 Establish appropriate means of communication between operators and ensure correct positioning of personnel

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	4.6 Ensure hazard controls and PPE are operational and adequate
5. Undertake drain cleaning job	5.1 Start up drain cleaning equipment for safe operation 5.2 Communicate with and supervise other operators as required by job 5.3 Operate equipment to meet job requirements 5.4 Monitor hazards and activate emergency stop as required 5.5 Monitor job, conditions and equipment and maintain agreed real-time visual and verbal communication 5.6 Recognise and diagnose problems and take appropriate action to resolve them
6. Complete drain cleaning job	6.1 Shut down drain cleaning equipment 6.2 Report job completion and details of any issues arising from the task in accordance with client or organisation requirements 6.3 Reinstate assets in accordance with site requirements 6.4 Disassemble equipment when safe to do so 6.5 Clean job site and equipment and ensure appropriate disposal of all waste 6.6 Disassemble exclusion zones when access to area is safe 6.7 Complete routine equipment servicing and store items in appropriate location 6.8 Identify and action restock requirements for spares and consumables 6.9 Complete documentation to job requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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

Unit Mapping Information

Release 1. Supersedes and is not equivalent to MSMWJ302 Operate a drain cleaning system.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

Assessment Requirements for MSMWJ305 Operate a drain cleaning system

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- autonomously assemble and operate drain cleaning equipment that meets the requirements of a Class B system as defined by *AS 4233.1 High pressure water jetting systems – Part 1: Safe operation and maintenance* to complete:
 - one drain cleaning operation AND
 - one drain clearing (choke/blockage) actual or simulated operation on a drainage system
- use two different types of nozzles/heads across the above operations.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- existence and purpose of *AS 4233.1 High pressure water jetting systems – Part 1: Safe operation and maintenance* and *Safe Work Australia Guide for Managing Risks from High Pressure Water Jetting*
- system controls required by *AS 4233.1 High pressure water jetting systems – Part 1: Safe operation and maintenance* and *Safe Work Australia Guide for Managing Risks from High Pressure Water Jetting*
- hazards and hazard controls specific to the operation of drain cleaning equipment, including:
 - physical hazards
 - stored energy hazards
 - working environment hazards
- environmental protection considerations for drain cleaning operations
- techniques and methodology of drain cleaning for drainage systems
- principles of operation of drain cleaning equipment and its component items, including:
 - positive displacement pump
 - motive power
 - hoses
 - nozzles
 - starter bars

- anti-withdrawal devices
- easement reel
- equipment variables, including:
 - hose type, size and restraints
 - nozzle type
 - pressure and flow required
- units of measurement used in drawings and their practical application for equipment selection
- graphics and symbols used on drawings
- relationship between views contained in drawings
- correct methods of starting up, shutting down, operating and controlling drain cleaning equipment and its component items by type and application
- communication systems used between operators, including hand signals
- operational parameters and limits of equipment
- types and causes of known problems for drain cleaning and its components and corrective action appropriate to the problem cause
- importance of monitoring and controlling job conditions
- methods for monitoring job variables, and the appropriate corrective actions
- types of situations that require:
 - activation of an emergency stop
 - stopping work until a situation is resolved
- procedures for:
 - raising the alarm (when, how, who to)
 - responding to injury
- routine cleaning and servicing requirements for drain cleaning equipment
- types of waste generated and procedures for safe disposal.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies.

The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - drain cleaning system and other tools and materials to complete tasks specified in the performance evidence
 - safety and personal protective equipment (PPE)
 - job documentation.

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

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