



Australian Government

Assessment Requirements for MSMWJ307 Operate a hydro excavation system

Release: 1

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Modification History

Release 1. Newly created unit.

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 a hydro excavation system comprising both of the following at least once:
 - a vacuum system for the removal of debris AND
 - high pressure water jetting 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*, including use of a pressure gun.

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 hydro excavation activities, including:
 - physical hazards
 - stored energy hazards
 - working environment hazards, including asbestos
- environmental protection considerations for hydro excavation activities
- types of utilities and how these are identified, including but not limited to:
 - water
 - gas
 - power
 - fibre optics
 - waste water
- pre-operational checks and set-up for a hydro excavation system
- basic principles of how high pressure water jetting nozzles and water jets work
- system controls for a vacuum system
- basic principles of how the following components from the two systems work, including:

- pump
- motive power
- hoses and nozzles
- guns
- 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
- communication systems used between operators, including hand signals
- operational parameters and limitations of equipment
- types and causes of known problems for hydro excavation 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 hydro excavation 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:
 - vacuum loading unit and ancillary equipment, high pressure water jetting 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.

Links

Companion Volume Implementation Guides are found in VETNet -

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