



Australian Government

Department of Education, Employment and Workplace Relations

AHCIRG209A Carry out installation tasks for low volume irrigation

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This Unit covers the process of assisting with the installation of low volume irrigation systems under supervision and defines the standard required to: assemble equipment and materials for installation work; assemble components and flush the irrigation system; identify faults and fix or report.

Application of the Unit

This Unit applies to workers in irrigation servicing, food or fibre production or amenity horticulture enterprises that operate under supervision and within enterprise guidelines.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This Unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for work on a low volume irrigation installation site	1.1 The required materials, tools and equipment are identified according to lists provided and/or supervisor's instructions 1.2 Techniques used when loading and unloading materials demonstrate correct manual handling and minimise damage to the load and the vehicle 1.3 Suitable personal protective equipment (PPE) is selected and checked prior to use 1.4 OHS hazards are identified and reported to the supervisor
2 Prepare the site	2.1 Irrigation lines are measured and marked out 2.2 Irrigation components are laid out 2.3 Trenches are dug or tidied up
3 Install irrigation components	3.1 Work is undertaken according to plan and supervisor's instructions 3.2 System components are assembled and connected according to plan, with joints completed and tested 3.3 A clean and safe work area is maintained while installation work is carried out 3.4 Tools are chosen appropriate to the task being undertaken, and used according to guidelines and safe working practices
4 Complete installation tasks	4.1 The site is restored and waste material is removed from the site and disposed of in an environmentally aware and safe manner according to enterprise work procedures 4.2 Tools, equipment and machinery are cleaned, maintained and stored according to enterprise work procedures 4.3 System is connected to water supply 4.4 System is flushed and commissioned as directed 4.5 Operating faults are identified and reported to supervisor and/or corrective actions taken

Required Skills and Knowledge

This section describes the skills and knowledge required for this Unit.

Required skills include:

Ability to:

- identify hazards and adopt safe work practices
- organise equipment and materials for installation work
- install irrigation components
- complete installation work
- communicate with work team members, supervisors, contractors and consultants
- use literacy skills to follow sequenced written instructions and record information accurately and legibly
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to relate to people from a range of social, cultural and ethnic backgrounds and with a range of physical and mental abilities.

Required knowledge includes:

Knowledge of:

- methods and techniques of low volume irrigation
- components of low volume irrigation systems
- characteristics and operation of joints, valves and drip and low volume sprinkler components, including controllers
- use of recycled water and colour coding of pipes
- basic energy efficiency and water efficiency factors
- safe work procedures and PPE
- OHS and environmental legislation and enterprise procedures.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this Unit

The evidence required to demonstrate competency in this Unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:

- assemble equipment and materials for installation work
- assemble components and flush the irrigation system
- identify faults and fix or report.

Context of and specific resources for assessment

Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances. This unit may be assessed in the context of installing domestic micro-irrigation.

Range Statement

The range statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Low volume irrigation</i> may include:	systems that operate under comparatively low volume and pressure including micro irrigation, pop-ups at less than 0.1 litres/second, and drippers.
<i>Personal protective clothing and equipment (PPE)</i> may include:	steel capped boots/shoes, overalls, gloves, sun hat, sunscreen lotion, safety goggles, face mask and hearing protection, and any protection required for the use of equipment.
<i>OHS hazards</i> should be identified through site risk assessment and organisational procedures and may include:	solar radiation, dust, noise, air- and soil-borne micro-organisms, chemicals and hazardous substances, sharp hand tools and equipment, manual handling, holes, and slippery and uneven surfaces.
<i>System components</i> may include:	• pumps • delivery equipment • system controllers.

Unit Sector(s)

Irrigation