



Australian Government

Department of Education, Employment and Workplace Relations

AHCIRG210A Carry out installation tasks for sprinkler irrigation

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This Unit covers the process of assisting with the installation of sprinkler irrigation systems under supervision and defines the standard required to: assemble equipment and materials for installation work; assemble components; and 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 installing sprinkler irrigation systems	1.1 The required materials, tools and equipment are identified according to lists provided and/or supervisor's instruction 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 Assemble and lay out components	2.1 Equipment is checked to confirm readiness for use 2.2 Materials are selected according to instructions 2.3 Irrigation components are laid out in accordance with instructions 2.4 Trenches are dug or tidied up in accordance with instructions where required
3 Install irrigation components	3.1 Pipeline is joined or finished according to instructions 3.2 System components are added or inserted according to instructions 3.3 Lines are positioned and secured according to instructions 3.4 Pumps and valves are fitted according to instructions
4 Complete installation activities	4.1 The irrigation system is commissioned and observed 4.2 Problems and anomalies are recognised and reported 4.3 Equipment is cleaned and stored according to instructions 4.4 Materials are stored according to instructions 4.5 Waste is collected and disposed of or recycled according to workplace procedures 4.6 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

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

Required skills include:

Ability to:

- organise equipment and materials for installation work
- use power tools and hand tools
- handle materials safely
- use hand signals for communicating with machine operator
- identify hazards and adopt safe work practices
- 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:

- sprinkler irrigation components and their function
- types of sprinklers and where they are used
- sprinkler spacing, coverage and pressure
- irrigation and/or drainage pipes, types and sizes
- bedding and backfill materials and handling methods
- set out procedures
- installation techniques and procedures
- safe use of hand and power tools and equipment
- working around machinery and hand signals for communication work safely to instructions
- OHS issues and procedures related to installation.

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
- 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.

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>Sprinkler irrigation systems</i> may include:	systems that use spray or rotor type sprinklers to distribute irrigation water at higher volume including pop-up sprinklers, fixed, and movable sprinklers (e.g. K Line and Ezy Shift).
<i>Personal protective clothing and equipment (PPE)</i> may include:	PPE 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</i> should be identified through site risk assessment and organisational procedures and hazards 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:	• sprinklers • lines • filters and valves • pumps • delivery equipment • system controllers.

Unit Sector(s)

Irrigation