



Australian Government

AHCDRG401 Coordinate and supervise installation of an irrigation drainage system

Release: 1

AHCDRG401 Coordinate and supervise installation of an irrigation drainage system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate and supervise the installation of an irrigation drainage system.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

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

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop and implement construction procedures	1.1 Develop employment and contract management procedures 1.2 Develop procedures for controlling and recording site deliveries 1.3 Develop procedures for recording the hire of plant and equipment 1.4 Determine work health and safety procedures, including risk assessment 1.5 Notify client, authorities and agencies of the schedule of works

Element	Performance criteria
	1.6 Develop procedures for dealing with environmental issues associated with construction work
2. Organise resource requirements	2.1 Nominate tasks and timelines, including the required resources for each 2.2 Organise labour requirements 2.3 Verify the correct parts and equipment have been delivered to the site and checked 2.4 Select and maintain equipment and machinery 2.5 Allocate jobs and tasks to the work team 2.6 Carry out safety induction for the task and site
3. Interpret the irrigation drainage system design for the site	3.1 Determine the purpose, scale and required output of the irrigation system 3.2 Assess the landscape of the site 3.3 Determine construction requirements and verify with the designer 3.4 Select components to meet design specifications and site requirements
4. Supervise preparatory work	4.1 Interpret plan and supervise preparatory work 4.2 Take levels and plan earth works 4.3 Confirm site is cleaned and marked out 4.4 Confirm drainage structures are pegged out
5. Supervise construction of the drainage system	5.1 Interpret plan and supervise construction work 5.2 Confirm trenches are excavated to specification 5.3 Confirm earth works are carried out appropriately 5.4 Confirm construction of drainage structures are to specifications 5.5 Inspect the lay out and joining of pipes 5.6 Check the fitting and adjustment of fittings and valves and confirm all joints are secured 5.7 Supervise the installation and testing of the pumping system
6. Commission the irrigation drainage system	6.1 Start the system up 6.2 Identify operating faults and take corrective actions as required 6.3 Use testing and monitoring equipment to monitor system efficacy 6.4 Make adjustments as required
7. Supervise the rehabilitation of the works area	7.1 Monitor the resurfacing and sealing earthworks 7.2 Confirm the planting and maintenance of vegetation areas have been carried out 7.3 Confirm the disposal of waste and surplus materials has been carried out in an environmentally sound manner

Foundation Skills

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

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG424A Construct and install an irrigation drainage system.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG401 Coordinate and supervise installation of an irrigation drainage system

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct a work health and safety risk assessment
- develop operational procedures
- document requirements for structures
- estimate quantities and volumes of soil to be moved
- implement employment procedures
- interpret irrigation designs
- supervise workers in:
 - earth moving and construction procedures
 - power and pumping plant installation
 - pump and gated pipe installation
 - construction of canals, channels, head ditches, beds, check structures, tailwater holding ponds

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation drainage system installation
 - components used in drainage systems
 - drainage appliances, fixtures and fittings
 - environmental impacts of drainage systems
 - environmental role of drainage systems
 - isolation processes and procedures
 - level and align site
 - levelling and alignment processes

- measuring and monitoring procedures for factors contributing to drainage system performance
- positive and negative environmental impacts of drainage systems
- regulatory requirements, codes of practice and relevant enterprise service standards relating to blockage removal, disconnection and reconnection activities
- soil moisture measurement procedures
- types and operational parameters of drains
- water authority standards and procedures
- water quality monitoring methods and techniques
- water table and salinity measures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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