



Australian Government

AHCDRG402 Monitor and control irrigation drainage systems

Release: 1

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Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and control irrigation drainage systems.

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. Assess irrigation drainage and collection systems	1.1 Measure drainage performance 1.2 Measure drainage and tail water quality 1.3 Measure water table depth where required 1.4 Measure soil salinity where required 1.5 Identify and record factors external to the system which may cause interference 1.6 Analyse drainage system data and compare to the performance specified in the irrigation drainage plan

Element	Performance criteria
2. Regulate flows	2.1 Inspect flow regulating systems and apply adjustments necessary to achieve discharge requirements specified 2.2 Monitor discharge flows and apply diversions to facilitate repair or emergency
3. Control and operate drainage system structures and processes	3.1 Control processes to maintain specified performance 3.2 Develop and implement maintenance procedures 3.3 Identify, address and report operational conditions of the drainage system 3.4 Integrate processes to improve drainage network performance
4. Troubleshoot drainage problems	4.1 Conduct a visual inspection to determine damaged or broken components and record results 4.2 Inspect areas being drained for signs of water pooling and record problems 4.3 Access drainage lines to allow blockage to be cleared 4.4 Clear blockage or replace blocked section 4.5 Test drainage line to confirm blockage is cleared from pipe system 4.6 Repair or reseal drainage line to permit normal use 4.7 Rehabilitate the drainage site
5. Record and report system performance status	5.1 Record water quality 5.2 Record water table depth, soil moisture and salinity 5.3 Document strategies that minimise negative environmental impacts and maximise positive impacts of the drainage system

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 AHCIRG425A Monitor and control irrigation drainage systems.

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 AHCDRG402 Monitor and control irrigation drainage systems

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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:

- apply soil moisture testing techniques
- calculate water volumes from rate and depth
- clear and refill drainage lines
- clear blockages from drainage systems
- identify hazards and implement safe work procedures
- isolate drainage lines
- measure water table depth, soil moisture and salinity

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for monitoring irrigation drainage systems
 - components used in drainage systems
 - environmental impacts of drainage systems
 - isolation processes and procedures
 - levelling and alignment processes
 - measuring and monitoring procedures for factors contributing to drainage system performance
 - soil moisture measurement procedures
 - types and operational parameters of drains
 - water quality monitoring methods and techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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