Modification history

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| Release | Comments |
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 4.0. |
| Release 1 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0. |

| AHCIRG3XX | Operate irrigation controller and sensor technology |
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| Application | This unit of competency describes the skills and knowledge required to operate irrigation controller and sensor technology, including preparing for work, operating irrigation controllers and operating irrigation sensors as part of irrigation installation, construction and operation.  The unit applies to individuals who operate irrigation controller and sensor technology under broad direction and take responsibility for their own work.  No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Irrigation (IRG) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for work | 1.1 Confirm activity to be undertaken, including identifying potential hazards and risks and implementing safe working practices to manage risks  1.2 Select required tools and equipment and check for safe operation and accuracy  1.3 Select, fit and use personal protective equipment applicable to the task |
| 2. Operate irrigation controllers | 2.1 Link valves to controllers by wiring or radio signals  2.2 Program controllers  2.3 Operate controller according to site requirements  2.4 Troubleshoot controller and rectify cause of faults |
| 3. Operate irrigation sensors | 3.1 Link sensors to controllers by wiring or radio signals  3.2 Program controllers to monitor sensor  3.3 Operate and monitor accuracy and reliability of sensor control equipment and adjust where necessary  3.4 Collect samples according to sampling techniques  3.5 Record and interpret readings and observations  3.6 Troubleshoot sensors and rectify cause of faults  3.7 Report discrepancies or malfunctions to management |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Reading | * Interpret textual information from a range of sources to identify relevant and key information about workplace operations |
| Writing | * Document readings and observations |
| Oral communication | * Use clear language to report discrepancies or malfunctions |
| Numeracy | * Interpret sample results, program irrigation controllers and adjust electronic flow equipment |
| Navigate the world of work | * Recognise and follow workplace requirements, including safety requirements, associated with own role and area of responsibility |

| Range Of Conditions  This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. | |
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| Controllers must include at least 3 of the following: | * stand alone * wifi * remote radio controllers * multi-site central controllers. |
| Sensors must include at least 4 of the following: | * water meters * soil moisture and temperature sensors * air temperature sensors * weather stations * pump pressure sensors * rainfall sensors. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCIRG3XX Operate irrigation controller and sensor technology  Release 1 | AHCIRG325 Operate irrigation technology  Release 1 | Major changes to elements, performance criteria, foundation skills and range of conditions | No equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet:  <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72> |

| TITLE | Assessment requirements for AHCIRG3XX Operate irrigation controller and sensor technology |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that the individual has operated irrigation controller and sensor technology on at least two occasions and has:   * maintained and checked irrigation controller and sensor equipment for accuracy * checked the accuracy of controller and sensor equipment and adjusted * operated irrigation controllers and sensors * recorded observations and data * recorded the results of sampling and testing. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * safe work practices including working with extra low voltage wiring according to Australian Standards * basic electrical testing procedures and safety practices * environmental procedures for use, storage and recycling of electronic equipment and batteries * data recording procedures * irrigation controller and sensor operating and testing procedures. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * a workplace setting or an environment that accurately represents workplace conditions * resources, equipment and materials: * work instructions and workplace procedures applicable to operating irrigation controller and sensor technology * irrigation controller and sensor installation and operating equipment * irrigation controllers and sensors * personal protective equipment applicable to installing and operating irrigation controller and sensor technology * specifications: * irrigation controller and sensor operating and testing procedures * data recording procedures * environmental procedures for use, storage and recycling of electronic equipment and batteries * relationships: * supervisor * timeframes: * according to job requirements.   Assessors of this unit must satisfy the requirements of assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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