



Australian Government

Department of Education, Employment and Workplace Relations

AHCINF302A Plan and construct an electric fence

Release: 1

AHCINF302A Plan and construct an electric fence

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of planning, constructing and maintaining an electric fence in a rural enterprise and defines the standard required to: develop an electric fencing plan for the enterprise; calculate and measure fencing requirements and calculate costings off the fencing plan; construct an electric fence that meets specifications and the needs of the livestock enterprise; test and monitor the electric fence for earthing and current flow, resistance and leakage.
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Application of the Unit

Application of the unit	This unit applies to farm workers and fencing contractors and is likely to be carried out under routine supervision within enterprise guidelines. It requires the application of skills and knowledge to identify and incorporate the topographical features of a property into an efficient and cost-effective fencing plan for construction.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Determine electric fencing requirements	<p>1.1. Fencing requirements are assessed according to property maps, legislative requirements and enterprise objectives.</p> <p>1.2. Equipment, materials and labour requirements are determined, and estimated costings are maintained within budgetary constraints.</p> <p>1.3. Alternative electric fencing options are determined and compared to ensure cost-effectiveness.</p> <p>1.4. Plan is prepared giving consideration to siting fences in relation to natural features and proposed uses.</p>
2. Prepare for construction	<p>2.1. Work plan is accessed and clarification sought where required.</p> <p>2.2. Tools and fencing equipment are arranged, and safely and efficiently transported to the work site.</p> <p>2.3. Labour requirements are arranged and confirmed according to enterprise requirements.</p> <p>2.4. Potential and existing hazards in the workplace are risk assessed and minimised according to Occupational Health and Safety (OHS) requirements.</p>
3. Construct electric fence	<p>3.1. Suitable personal protective equipment is selected, used and maintained according to OHS and enterprise requirements.</p> <p>3.2. Electric fence is constructed according to work plan, OHS and enterprise requirements.</p> <p>3.3. Gates are attached and appropriately positioned for correct operation and function according to work plan.</p> <p>3.4. Energiser is installed according to manufacturer's specifications, OHS and enterprise requirements.</p> <p>3.5. All work is carried out safely according to OHS and enterprise requirements.</p>
4. Complete fencing operations	<p>4.1. Fencing is checked for correct installation and performance.</p> <p>4.2. Electric fence faults are identified and rectified according to manufacturer's specifications, OHS and enterprise requirements, and level of complexity.</p> <p>4.3. Work site is cleared and tidied and all waste is disposed of in an environmentally responsible manner.</p> <p>4.4. Tools and fencing equipment are transported safely from the work site and checked and stored according to manufacturer's recommendations and enterprise</p>

ELEMENT	PERFORMANCE CRITERIA
	requirements. 4.5. Relevant information is recorded and maintained according to enterprise requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- identify hazards and implement safe operating procedures
- draft fencing plans and specifications
- operate fencing tools and construction equipment
- mark fencing lines
- install strainer assemblies and posts
- tension and terminate line wires
- fit post insulators
- use effective knots for joining and tying off wires to avoid short circuits
- test electric fences for current and leakage
- minimise environmental impacts
- read and interpret plans
- read plans
- arrange and purchase materials
- calculate and measure fencing requirements and calculate costings of fencing plan
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning techniques, active listening, clarifying information and consulting with supervisors as required
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- basic operation of electric fences including earthing and current flow, resistance and leakage
- difference between portable and mains power
- issues affecting electric fencing in relation to the whole property plan
- range of electric fencing designs, construction methods and materials
- dangers posed by electricity to personnel and livestock
- conditions under which electric fences may cause fire

REQUIRED SKILLS AND KNOWLEDGE

- safe methods for diagnosing routine faults
- common electric fencing hazards and safety precautions
- relevant State/Territory legislation and regulations regarding electric fences
- OHS legislative requirements
- relevant codes of practice with regard to protection of the environment.

Evidence Guide

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	<p>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:</p> <ul style="list-style-type: none"> • develop an electric fencing plan for the enterprise • calculate and measure fencing requirements and calculate costings off the fencing plan • construct an electric fence that meets specifications and the needs of the livestock enterprise • test and monitor the electric fence for earthing and current flow, resistance and leakage.
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

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Electric fencing may include:	<ul style="list-style-type: none"> • all of the components and fence designs used for electric fencing.

Unit Sector(s)

Unit sector	Farm infrastructure
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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