



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MTMP3005A Monitor the effective operations of electrical stimulation**

**Release: 1**

## MTMP3005A Monitor the effective operations of electrical stimulation

### Modification History

Release	TP Version	Comments
1	MTM11v3	Initial release.

### Unit Descriptor

This Unit covers the skills and knowledge required to monitor an automated or manual electrical carcass stimulation unit to ensure that the carcasses are receiving the optimal stimulation.

### Application of the Unit

This Unit is applicable to workers monitoring electrical stimulation units in slaughtering establishments.

### Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this Unit.

### Pre-Requisites

Nil.

### 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. Monitor electrical stimulation unit	1.1 Monitor the <i>electrical stimulation unit</i> using the correct procedure to check electrical stimulation equipment operation. 1.2 Use dummy load across each of the <i>electrical inputs</i> to check operation in accordance with work instructions and manufacturers specifications. 1.3 Observe for and describe the normal reaction of carcasses to electrical stimulation. 1.4 Observe for and respond to any <i>abnormal reaction</i> of carcasses to electrical stimulation. 1.5 Follow up on requests for maintenance and check operation is normal. 1.6 Follow workplace health and safety requirements for working around <i>electrical stimulation units</i> .
2. Ensure routine checks of equipment by technicians are performed	2.1 Routine checks arranged or overseen to ensure a full check of the equipment is made including: electrical parameters, stored programs, electrical safety, electrodes and equipment integration. 2.2 Maintenance and equipment reports detailing the findings and recommendations are reviewed and corrective actions implemented.
3. Respond to audits of carcase specification compliance	3.1 Describe the pH/temperature window and its importance to meat quality. 3.2 Describe the audit process for electrical stimulation unit performance and the various potential findings. 3.3 Respond to adverse audit findings including recommendations to alter stimulation inputs, alter stimulation time and adjust chilling regime.

## Required Skills and Knowledge

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

### Required skills include:

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#### Ability to:

- observe and recognise normal and abnormal carcase responses to electrical stimulation
- instruct workers in and around electrical stimulation units to recognise and report abnormal carcase responses
- monitor the electrical stimulation unit using the correct procedure including readouts
- use dummy load across each of the electrical inputs to check operation
- request and schedule maintenance
- review maintenance and performance audit reports and ensure follow up action has been taken
- apply relevant communication skills
- work effectively as an individual and as part of a team
- take action to improve work performance as a result of self-evaluation, feedback from others, or in response to changed work practices or technology.

### Required knowledge includes:

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#### Knowledge of:

- purpose of electrical stimulation
- pH/temperature window and its importance to meat quality
- causes of heat toughening and cold shortening and the impacts on meat quality
- correct procedures to check electrical stimulation equipment operation
- purpose of dummy loads to check operation
- relevant work instructions and manufacturers specifications
- normal and abnormal reactions of carcasses to electrical stimulation
- required routine checks for electrical parameters, stored programs, electrical safety, electrodes and equipment integration
- use of an oscilloscope to ensure that the waveform parameters are as specified
- maintenance and equipment reports
- audit process for electrical stimulation unit performance and the various potential findings
- how to respond to adverse audit findings of electrical stimulation unit performance
- workplace health and safety issues associated in working around electrical stimulation units.

## Evidence Guide

<p>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.</p>	
<p>Overview of assessment</p>	<p>The meat industry has specific and clear requirements for evidence. A minimum of three forms of evidence is required to demonstrate competency in the meat industry. This is specifically designed to provide evidence that covers the demonstration in the workplace of all aspects of competency over time. These requirements are in addition to the requirements for valid, current, authentic and sufficient evidence. Three forms of evidence means three different kinds of evidence – not three pieces of the same kind. In practice it will mean that most of the Unit is covered twice. This increases the legitimacy of the evidence. All assessment must be conducted against Australian meat industry standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this Unit</p>	<p>Competency must be demonstrated over time and under typical operating and production conditions for the enterprise.</p>
<p>Context of and specific resources for assessment</p>	<p>Assessment may occur in the workplace under normal enterprise or production conditions as well as in simulated situations.</p>
<p>Method of assessment</p>	<p>Recommended methods of assessment include:</p> <ul style="list-style-type: none"> <li>• workplace demonstration</li> <li>• quiz of underpinning knowledge</li> <li>• workplace project</li> <li>• workplace referee report of performance over time.</li> </ul> <p>Assessment practices should take into account any relevant language or cultural issues related to Aboriginality or Torres Strait Islander, gender, or language backgrounds other than English. Language and literacy demands of the assessment task should not be higher than those of the work role.</p>
<p>Guidance information for assessment</p>	<p>A current list of resources for this Unit of Competency is available from MINTRAC <a href="http://www.mintrac.com.au">www.mintrac.com.au</a> or telephone 1800 817 462.</p>

## Range Statement

<p>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.</p>	
<p><b><i>Workplace requirements</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• enterprise-specific procedures</li> <li>• workplace health and safety requirements</li> <li>• Quality Assurance (QA) requirements</li> <li>• Standard Operating Procedures (SOPs)</li> <li>• the ability to perform the task to production requirements</li> <li>• work instructions</li> <li>• manufacturer's requirements.</li> </ul>
<p><b><i>Electrical stimulation units</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• high, medium and low voltage units</li> <li>• automated or manual units.</li> </ul>
<p><b><i>Electrical inputs</i></b> to carcasses may be derived from:</p>	<ul style="list-style-type: none"> <li>• High Frequency Immobilisation (HFI)</li> <li>• Moderate Frequency Immobilisation</li> <li>• electronic bleed/stimulation</li> <li>• pre and post dressing high, medium and low voltage stimulation.</li> </ul>
<p><b><i>Abnormal reaction</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• carcasses bouncing</li> <li>• no visual response.</li> </ul>
<p><b><i>Regulatory requirements</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• Export Control Act</li> <li>• hygiene and sanitation requirements</li> <li>• relevant regulations and Australian Standards</li> <li>• requirements set out in AS 4696:2007 Australian Standard for Hygienic Production and Transportation of Meat and Meat Products for Human Consumption</li> <li>• relevant State legislation relating to the installation and maintenance of electrical equipment.</li> </ul>
<p><b><i>Communication skills</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• communicating and working with diverse individuals and groups</li> <li>• interpreting customer requirements</li> <li>• listening and understanding, speaking clearly and directly</li> <li>• reading and interpreting workplace-related documentation</li> <li>• sharing information.</li> </ul>
<p><b><i>Mathematical skills</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• reading and recording data</li> <li>• reading and interpreting performance reports.</li> </ul>

<p><b><i>Workplace health and safety requirements</i></b> may include:</p>	<ul style="list-style-type: none"><li>• enterprise policies, procedures and programs</li><li>• workplace health and safety legal requirements</li><li>• Personal Protective Equipment (PPE) which may include:<ul style="list-style-type: none"><li>• coats and aprons</li><li>• ear plugs or muffs</li><li>• eye and facial protection</li><li>• head-wear</li><li>• lifting assistance</li><li>• mesh aprons</li><li>• protective boot covers</li><li>• protective hand and arm covering</li><li>• protective head and hair covering</li><li>• uniforms</li><li>• waterproof clothing</li><li>• work, safety or waterproof footwear</li><li>• requirements set out in standards and codes of practice.</li></ul></li></ul>
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## **Unit Sector(s)**

Not applicable.

## **Custom Content Section**

Not applicable.