









Industry Animal Welfare Standard for Livestock Processing Establishments Preparing Meat for Human Consumption

IMPLEMENTATION GUIDE Approved November 2024 and effective 1 January 2026

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INTRODUCTION

This document has been developed to provide guidance on the implementation of the **Industry Animal Welfare Standard for Livestock Processing Establishments Preparing Meat for Human Consumption** ('the Standard). The Standard is arranged as shown in Figure 01 below.

Figure 01: Standard content and explanation of the information covered in each section.

Sta	ndard Content	Information
1	Scope	The Standard provides requirements for the commercial processing of cattle (including calves), sheep (including lambs), pigs, goats, buffalo, deer and horses in Australian processing establishments; from receival at the processing establishment through to (and including) slaughter. The scope of the Standard is summarised as a series of process steps in Figure 02, which illustrates the main animal welfare considerations and the areas of responsibility for the processing establishment.
2	Normative documents	The Standard also refers to several normative documents in such a way that <u>some or all</u> <u>of their content constitutes requirements of the Standard</u> . For dated references, only the
		edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.
		Australian Animal Welfare Standards and Guidelines - Land Transport of Livestock
		Australian Standard for the Hygienic Production and Transport of Meat and Meat Products for Human Consumption
		Model Code of Practice for the Welfare of Animals - Livestock at Slaughtering Establishments. SCARM Report 79
		Additional informative documents: The Standard also provides consistency with international guidelines, including the OIE Terrestrial Animal Health Code 2019: Guidelines for the Slaughter of Animals for Human Consumption. It is also aligned with published industry guidelines, for example, the North American Meat Institute's Recommended Animal Handling Guidelines & Audit Guide: A Systematic Approach to Animal Welfare (2021).
4	Management requirements	Contains subsections covering the following: Management system Document control
		Performance evaluation and improvement Performance evaluation
		Internal audit
		Non-conformities, correction and corrective actions Management review
5	Resource	Contains subsections covering the following:
	requirements	Human resource management and competencies Physical resources
6	Management and care of livestock	Contains subsections covering the following: Receival of livestock at the establishment Livestock handling
		Daily management of livestock
		Identification and management of weak, ill or injured livestock
7	Humane stunning and sticking processes	Contains subsections covering the following: Restraint Stunning procedures
	processes	Sticking procedures
	Annexes	Contains the following sections: Documented procedures Personnel competencies Fitness for transport Unacceptable practices and procedures
		Permitted stunning methods
	Bibliography	Reference documentation relevant to the Standard.

Figure 02: Flow diagram of animal welfare considerations - Steps 3-7 are the direct responsibility of the processing establishment

Process	Step	Welfare Consideration
Farm/Saleyard	1	Fitness and health of stock selected for transport Design and maintenance of holding and loading facilities Stocking density Animal handling Demonstrated staff competencies Time off feed and water
Transport	2	Fitness and suitability of livestock for transport Vehicle design, cleanliness, maintenance and condition Stocking density and mixing of livestock Time off feed and water Transport duration and conditions Surveillance of livestock Handling livestock at rest stops or depots during the journey Emergency preparedness Humane killing during transport Demonstrated staff competencies
Arrival of stock and unloading	3	Planning and scheduling for slaughter Unloading of livestock at the plant Identification, treatment and reporting of weak, ill or injured stock upon arrival Humane killing upon arrival Facilities for unloading Operation, maintenance and cleaning of facilities and equipment Demonstrated staff competencies
Lairage and holding areas	4	Access to water Stocking density Shelter Mixing, aggression and animal behaviour Surveillance of livestock and ante-mortem inspections Provision of feed for livestock to be held Humane killing Animal cleanliness for processing Maintenance and design of facilities Operation, maintenance and cleaning of facilities and equipment Emergency preparedness Demonstrated staff competencies
Movement to the slaughter floor	5	Operation, maintenance and cleaning of facilities and equipment Handling and drafting of animals Animal behaviour Demonstrated staff competencies
Stunning	6	Operation and maintenance of facilities and equipment for stunning and restraint Animal handling during restraint and stunning Effective stunning with appropriate equipment Emergency preparedness Demonstrated staff competencies
Slaughter	7	Effective and humane slaughter procedures Maintenance and design of slaughter equipment and facilities Emergency preparedness Demonstrated staff competencies

TERMS AND DEFINITIONS

For the purposes of the Standard and this guidance document, the following terms and definitions apply.

Term	Definition	
3.1 AAWCS	Australian Livestock Processing Industry Animal Welfare Certification System.	
3.2 Competency	The demonstrated knowledge, skills, attitude and behaviour to effectively undertake a task.	
3.3 Compliance requirements	Any local, regional, national and international:	
	 a) statutory or regulatory requirements (including any necessary certificates, permits, licences, permissions, consents); 	
	b)requirements in treaties or conventions; and	
	c) contractual requirements.	
3.4 Correction	Action to eliminate an identified nonconformity.	
	SOURCE: ISO 9000:2015, 3.12.3	
3.5 Corrective action	Action to eliminate the cause of a nonconformity and prevent recurrence.	
	Note 1 to entry: There can be more than one cause for a nonconformity.	
	Note 2 to entry: Corrective action is taken to prevent recurrence whereas preventive action is taken to prevent occurrence. SOURCE: ISO 9000:2015, 3.12.2	
2.6 Decumented information		
3.6 Documented information	Information required to be controlled and maintained by an establishment.	
3.7 Electric goad	A low voltage (<50 volts) or commercially manufactured electric device designed and used for the purpose of making livestock move.	
3.8 Emergency slaughter	Slaughter by necessity (i.e. In the interest of animal welfare) of any animal that:	
	a) has recently suffered traumatic injury or is affected or suspected of being affected by a disease or other abnormality; and	
	b) is in pain or is likely to deteriorate unless it is killed immediately.	
	Generally, livestock in relation to the above would normally undergo an assessment as to the fitness for human consumption.	
3.9 Fall	Occurs when an animal loses an upright position suddenly in which a part of the body othe than the limbs touches the ground.	
	SOURCE: NAMI Recommended handling guidelines and audit guide: A systematic approach to animal welfare. January 2021.	
3.10 Humane	Without pain, suffering or distress.	
3.11 Insensibility	Synonymous with unconsciousness.	
3.12 Killing	Any procedure which causes the death of an animal.	
3.13 Lairage	A designated holding area of the processing establishment where livestock are kept before slaughter.	
3.14 Livestock processing establish- ment ('the establishment')	Premises used for the processing of livestock and production of meat or meat products for human consumption.	
3.15 Nonconformity	Nonfulfillment of a requirement or failure to demonstrate fulfilment of a requirement.	
3.16 Slaughter	The killing of an animal; includes stunning, sticking and bleeding.	
3.17 Sticking	The severing of blood vessels to induce effective bleeding.	
3.18 Stunning	The procedure for rendering an animal unconscious and insensible to pain.	
	Note 1 to entry: Irreversible stunning - where there is no possibility of the animal regaining con- sciousness.	
	Note 2 to entry 2: Reversible stunning - where the animal may regain consciousness unless effec- tively bled out to cause death.	
3.19 Restraint	Positioning the animal for stunning or killing.	
3.20 Stocking density	The number of animals per unit area, with the area usually measured in m ² .	
3.21 The Standard	This Standard, that is the Industry Animal Welfare Standard for Livestock Processing Establish- ments Preparing Meat for Human Consumption (3 rd Edition).	
3.22 Training	Formal and informal vocational education and development.	
3.23 Unconsciousness	State of unawareness (loss of consciousness) in which there is temporary or permanent disruption to brain function, during which the animal does not feel pain.	
3.24 Vocalisation	Moo or bellow in cattle as a consequence of direct active handling in the race or crowd pen or during restraint (eg in the stun box). Squeal in pigs. A squeal is an extended sound produced with an open mouth, indicating excitement, fear, or pain. Squealing that occurs when pigs root under each other or jump on top of each other is counted if provoked by the application of electric goads, yelling, poking, or hitting the pigs. SOURCE: NAMI Recommended handling guidelines and audit guide: A systematic ap-	
	SOURCE: NAMI Recommended handling guidelines and audit guide: A systematic approach to animal welfare. January 2021.	

REQUIREMENTS AND GUIDANCE

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
AMIC Industry Standard			
4 Management			
4.1 Management system			
4.1.1 The establishment shall establish, implement, and maintain a management system that enables the consistent fulfilment of the requirements in this Standard.	 Evidence must demonstrate that the establishment has established, implemented and maintained a management system. Types of evidence can include: Verbal description and examples of what makes up the management system. Documented information about the management system, e.g. Documented processes (See 4.1.2). Management system manual and/or a process diagram/list showing the main processes of the establishment and how they interrelate. Details of Approved Arrangement with identification of processes. 	The required outcome is for the establishment to demonstrate that it has a management system that addresses the requirements in the Standard. In the Standard, the establishment's management system is a set of interacting processes that are undertaken to achieve objectives. Processes can be made up of a series of activities that are undertaken using defined methods. The activities and methods can be taught through training and may be prescribed in the form of standard operating procedures (SOPs), task sheets etc. or other forms of documented information such as records. The methods used should be repeatable and result in the same outcome each time they are performed. Note: Under the Australian Standard for the Hygienic Production and transportation of Meat and Meat Products (AS4696) as referenced under Commonwealth, State and Territory law, it is the responsibility of the occupier to develop, implement, maintain and have approved their arrangement to meet food safety and product integrity requirements and in the case of exports facilitate market access. This is a quality management framework.	Ref [1] Definition of process Ref [2] Approved Arrangement guidance - Quality Management Framework Ref [3] Export Control (Meat and Meat Products) Rules 2021 Ref [4] Australian Standard AS 4696 - Section 3

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 4.1.2 The management system shall include at least the following: a) identification of compliance requirements associated with processing activities as related to animal welfare; b) identification, monitoring and control of processes used to carry out processing activities as related to animal welfare, including those in Annex A; c) management commitment and allocation of responsibilities; d) resource management, including human resource management and competence (Annex B); e) improvement, including internal audit and management review processes and systems for implementing corrective action; and f) documented information that is necessary to demonstrate consistent fulfilment of the requirements in this Standard. NOTE The extent of the documented information for a management system can differ between establishments based on their size and the scope and complexity of its meat processing activities. Documented information includes video surveillance system (VSS) data. 	 Evidence must demonstrate that the establishment management system includes items identified in 4.1.2. Evidence of a) can include: Log of relevant compliance documentation. Details of Approved arrangement, including identification of relevant animal welfare compliance requirements. Evidence of b) can include: List/diagram of main processes. Flow charts. Production records. Traceability records. Internal audit reports. Corrective action reports. Work instructions and procedures. Essential documented procedures as listed in Annex A. 	See information under 4.1.1. The required outcome is for the establishment to demonstrate the management system includes list items a) - f). The management system provides the platform for setting performance measures, monitoring improving performance over time. Through monitoring and reporting it is expected the establishment can control its operations, and make adjustments when outcomes are not optimal, and nonconformities arise. With the addition of internal audits and management review, the establishment can ensure issues are identified, explored, resolved and reoccurrence is prevented by undertaking corrective actions. It is important that decisions affecting animal welfare have oversight from senior management or their representatives. Allocation of responsibilities can be demonstrated by having a clear organisational structure with defined roles and responsibilities and communicating that to personnel.	Ref [2] Approved Arrangement guidance - Contains information on the identification and use of standard operating procedures Ref [4] Australian Standard AS 4696 - Section 3 Ref [13] NAMI Recommended handling guidelines and audit guide

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
	 Evidence of c) can be demonstrated by the fulfilment of 5.1 <i>Human resource</i> <i>management and competencies</i>. Examples of evidence can include: Organisational charts Delegation register Job descriptions Duty statements Communication to personnel Allocation of tasks Meeting minutes Evidence of d) can include: Contracts Letters of appointment Personnel files Training records 	Essential documented procedures for the management of livestock are shown in Annex A. These include contingency procedures to prevent and/or mitigate possible risks to animal welfare. These may include: Delays to scheduled slaughter; equipment breakdown and failure; extreme weather; fire or floods; out of hour management of livestock; industrial disputes. Ref [13] includes recommendations for developing an emergency livestock management plan. Documented information is a defined term in the Standard. It means: 'Information required to be controlled and maintained by an establishment.' Documented information is simply information that is needed to consistently run the establishment and its operations, and to record and improve its performance. This can include video surveillance (VSS) footage.	

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
REQUIREMENT	Examples of evidenceEvidence of e) can be demonstrated by the fulfilment of subclauses 4.3.2 Internal audit, 4.3.3 Nonconformities, correction and corrective actions and 	Explanation	
	system, or on capture and storage devices such as tablets or smart		
	phones etc. Documented information, including operational procedures and		
	training information, can also be in the form of pictures, videos (for example VSS footage), recorded instructions etc.		

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
4.2 Document control			
 4.2.1 When creating and updating documented information, the establishment shall ensure appropriate: a) identification and description (e.g. a title, date, author, reference number); b) format (e.g. language, software version, graphics) and media (e.g. paper, electronic); and c) review and approval for suitability and adequacy. 	 Often establishments will have a procedure for controlling documents and will use standard formats for its documented information. Types of evidence can include: Controlled documents master list that keeps a list of all controlled documents and a record of the latest authorised versions; and Examples of controlled documented information and approvals. 	The required outcome is for the establishment to demonstrate that it controls its documented information. Documented information (see 4.1.2 above) contains the information that runs the establishment and its operations. It is therefore critical that it is controlled to ensure personnel have the correct instructions, procedures and checklists whenever they need them (for example, if visual instructions are used in lairage etc). This also applies in the case of records, especially those required for compliance purposes and monitoring performance.	Ref [2] Approved Arrangement guidance - Part 1 System Support (Document Control) Ref [3] Export Control (Meat and Meat Products) Rules 2021
 4.2.2 Documented information required by the management system and by this Standard shall be controlled to ensure that: a) it is available and suitable for use; and b) it is adequately protected (e.g. from improper use, loss of confidentiality or loss of integrity). 	 Types of evidence can include: Demonstrating that personnel have access to controlled documented information. Examples of version control and issuance. Demonstration that VSS footage is adequately retained and protected from improper use, loss of confidentiality or loss of integrity. 	See above explanation 4.2.1	Ref [2] Approved Arrangement guidance - Part 1 System Support (Document Control) Ref [3] Export Control (Meat and Meat Products) Rules 2021

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 4.2.3 For the control of documented information, the establishment shall address: a) distribution, access, retrieval and use; b) storage and preservation; 	 Types of evidence can include: Examples of version control and issuance. Examples of how documented information is stored, saved, 	See above explanation 4.2.1	Ref [2] Approved Arrangement guidance - Part 1 System Support (Document Control) Ref [3] Export Control (Meat and Meat Products) Rules 2021
c) control of changes (e.g. version control); and d) retention and disposition.	replaced and deleted.Examples of version control and issuance.		

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
4.3 Performance evaluation and improvement			
4.3.1 Performance evaluation			
4.3.1.1 The establishment shall identify, monitor and measure performance indicators.	 Types of evidence can include: Identification of measurable parameters for various processes. This may include the identification of 'trigger' or 'target' levels, that require corrective action when targets are not met or when a trigger is exceeded. Demonstration of monitoring activities and equipment. Monitoring records, with corrective actions where targets are not fulfilled. 	The required outcome is for the establishment to demonstrate that it has identified performance indicators and uses them to monitor and measure performance. The performance indicators should be related to animal welfare outcomes and enable the requirements of 4.3.1.2 to be achieved. The Standard identifies a number of mandatory performance indicators in requirements; 6.2.2, 6.2.3, 7.2.2, 7.2.4. Annex A requires the development of a documented procedure for animal welfare monitoring. This document can be used to identify animal welfare performance indicators. It is important that the use of the VSS footage as part of animal welfare monitoring is included in the documented procedure. Appendix 01 describes animal welfare monitoring procedures and associated performance indicators.	Ref [2] Approved Arrangement guidance - provides information on the identification and use of performance indicators to address management practices, hygienic operations and other requirements. Ref [Appendix 01 of this guidance document]

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 4.3.1.2 The establishment shall analyse its performance to identify and evaluate: a) the achievement of indicators; b) conformity with the requirements of this Standard; c) areas of risk; d) opportunities for improvement; e) the performance of personnel and suppliers; and f) customer satisfaction. NOTE Analysis of performance includes the monitoring and analysis of video surveillance system (VSS) data as per 5.2.10. 	 Types of evidence can include: Records of analysis of the results of monitoring, including identification of when parameters are being achieved or when the results are out of specification. Minutes/meeting notes/follow up emails. Personnel records e.g. attendance records. Risk analysis/risk assessment register. VSS monitoring records and analysis of data. Demonstration and description of actions that are taken to correct or improve performance, including examples of where monitoring and analysis has led to issues being investigated and corrective action being used to resolve the issues. Corrective action records. 	The required outcome is for the establishment to demonstrate that it defines performance objectives and then monitors and analyses its performance. The decision on how it defines, monitors and analyses the results is for the establishment to determine. What is important, however, is for the establishment to demonstrate that it undertakes monitoring and analysis to meet any compliance requirements and conform with the requirements in the Standard, including identification and management of risk. This can be linked back to the main processes that the establishment have identified under 4.1.2, and the selection of some key parameters in each process that must be monitored and analysed. The last part of monitoring and analysis is to show that action is actually undertaken when things are not right (i.e. nonconformities and opportunities for improvement).	Ref [1] Definition of performance, risk and improvement Ref [2] Approved Arrangement guidance - provides information on the identification and use of performance indicators to address management practices, hygienic operations and other requirements Ref [Appendix 01 of this guidance document]

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
4.3.2 Internal audit			
The establishment shall: a) plan, establish and maintain an internal audit programme including the frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the importance of the processes concerned and associated risks to animal welfare, customer feedback, changes affecting the establishment and the results of previous internal audits and external evaluations; b) follow the audit criteria and scope for each internal audit; c) select competent auditors and conduct audits in a manner that ensures objectivity and impartiality; d) report the results to relevant management; e) take necessary and timely corrective action; and f) retain documented information as evidence of the implementation of the internal audit programme and the audit results.	 Types of evidence can include: Documented internal audit procedure and programme/ schedule. Management reports. Completed internal audit templates or checklists. Internal audit reports. Demonstration of an internal audit taking place. Email/meeting minutes. Corrective action records. Examples of how findings have resulted in corrective actions to resolve the root cause of the issue. Training/qualifications of internal auditors. 	The required outcome is for the establishment to demonstrate that it undertakes internal audits in accordance with a predetermined and planned internal audit programme. An internal audit programme describes how and when internal audits are to be conducted, and by whom. Internal audits are an important feature of a management system approach to achieving organisational objectives. Internal audits should be carried out by personnel internal to the establishment (however, they cannot audit their own work). It is important that internal auditors are competent; that being that they can perform audits, have an understanding of animal welfare, the Standard and the processes being audited.	Ref [1] Definition of audit Ref [2] Approved Arrangement guidance - Part 1 System Support (Internal Audit) Ref [4] Australian Standard AS 4696 - Section 3.9 Ref [5] Guidelines for auditing management systems Ref [6] ISO 9001 Auditing Practices Group guidance on <u>effective use of ISO</u> 19011 Ref [7] ISO 9001 Auditing Practices Group guidance on <u>internal audit</u>

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 4.3.3 Nonconformities, correction and corrective actions 4.3.3.1 When a nonconformity occurs, the establishment shall: a) correct the nonconformity; b) determine the cause of the nonconformity and ways to prevent its recurrence; c) undertake, and review the effectiveness of, corrective action; and d) make any necessary changes to the management system. 	 Types of evidence can include: Completed nonconformity and corrective action forms. A list or register of nonconformities and corrective (follow-up) actions. Examples of how findings have resulted in corrective actions to resolve the root cause of the issue. Root cause analysis reports. 	The required outcome is for the establishment to demonstrate that it undertakes corrective action when nonconformities arise. The term 'correction' means: 'the action taken to eliminate a nonconformity.' [Ref 1] The term 'corrective action' means: 'the action taken to eliminate a nonconformity and prevent recurrence'. [Ref 1] This is the current use of these terms. Establishments may be more familiar with the terms 'corrective action' and 'preventive action', which are synonymous with these terms.	(See Bibliography)Ref [1] Definition of correction and corrective action.Ref [2] Approved Arrangement guidance - Part 1 System Support (Corrective Action)Ref [3] Export Control (Meat and Meat Products) Rules 2021Ref [4] Australian Standard AS 4696 - Section 3.7 and 3.8Ref [5] Guidelines for auditing management systemsRef [8] ISO 9001 Auditing Practices Group guidance on nonconformity documentingRef [9] ISO 9001 Auditing Practices
			Group Guidance nonconformity – review and closing.

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
4.3.3.2 Corrective actions shall be appropriate to the effects of the nonconformities encountered.	 Types of evidence can include: Completed nonconformity and corrective action forms. A list or register of nonconformities 	See above explanation 4.3.3.1	<i>Ref [1] Definition of nonconformity and corrective action</i>
	 and corrective (follow-up) actions. Examples of how findings have resulted in corrective actions to resolve the root cause of the issue. 		
 4.3.3.3 The establishment shall retain documented information as evidence of: a) the nature of the nonconformity and the corrective action taken; and b) the results of any corrective action. 	 Types of evidence can include: Completed nonconformity and corrective action forms. A list or register of nonconformities, corrective (follow-up) actions and results. 	See above explanation 4.3.3.1	Ref [1] Definition of documented information, nonconformity and corrective action Ref [2] Approved Arrangement guidance - Part 1 System Support (Document Control) Ref [4] Australian Standard AS 4696 - Section 3.6, 3.7 and 3.8

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
4.3.4 Management review			
4.3.4.1 Management shall review the establishment's management system at least annually.	 Types of evidence can include: Management review minute/meeting record/follow-up emails. Demonstration of a management review taking place. 	The required outcome is for the establishment to demonstrate that it undertakes a management review at least annually. Management review is a formal opportunity for organisational management to evaluate establishment performance, think about the future, and plan for adjustments or improvements. During the evaluation of performance, the management review needs to consider the outcomes of Section 4.3.1.2, including the monitoring and analysis of video surveillance system (VSS) data as outlined in Section 5.2.10. Sometimes it is done as part of an annual strategic review or planning exercise. It is important that the establishment demonstrates it is being done and covers the inputs (4.3.4.2) and outputs (4.3.4.3). It is important that the management review involves senior management or their representatives who have the authority to plan and initiate future improvements etc.	Ref [2] Approved Arrangement guidance - Part 1 System Support (Management Review) Ref [4] Australian Standard AS 4696 - Section 3.9 Ref [10] ISO 9001 Auditing Practices Group guidance on <u>policy, objectives</u> <u>and management review</u> .

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 4.3.4.2 The review shall include the following: a) the status of actions from previous management reviews; b) changes in external and internal issues that are relevant to the management system; c) results of internal and external audits; 	 Types of evidence can include: Management review minute/meeting record/follow-up emails. Demonstration of a management review taking place. 	Also see above explanation 4.3.4.1. The required outcome is for the establishment to demonstrate the management review covers list items a) - f). Customer satisfaction can include management of customer feedback, complaints or third-party audit results.	Ref [1] Definition of audit, nonconformity, corrective action and improvement Ref [2] Approved Arrangement guidance - Part 1 System Support (Management Review) provides examples of management review activities, including conduct of management review, examples
d) nonconformities and corrective actions; e) customer satisfaction; and f) potential opportunities for continuous improvement.			of inputs and recording of outputs. Ref [3] Export Control (Meat and Meat Products) Rules 2021 Ref [10] ISO 9001 Auditing Practices Group guidance on <u>policy, objectives and</u> <u>management review</u>
 4.3.4.3 The output from the management review shall include: a) identification of risks; b) opportunities for improvement; and c) the need for any changes to the management system. 	 Types of evidence can include: Management review minute/meeting record/follow-up emails. Demonstration of a management review taking place. 	See above explanation 4.3.4.1. The required outcome is for the establishment to demonstrate the outputs from the management review includes list items a) - c).	Ref [1] Definition of management system, risk and improvement Ref [2] Approved Arrangement guidance- Part 1 System Support (Management Review) provides examples of management review activities, including conduct of management review, examples of inputs and recording of outputs. Ref [3] Export Control (Meat and Meat Products) Rules 2021 Ref [10] ISO 9001 Auditing Practices Group guidance on <u>policy, objectives and</u> <u>management review</u>

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
5 Resource requirements			
5.1 Human resource management and competencies			
 5.1.1 The establishment shall: a) identify and have access to enough personnel to enable the fulfilment of the requirements of the Standard; b) demonstrate that personnel involved in activities relating to the handling, stunning, slaughter and animal welfare monitoring have the competencies contained in Annex B; and c) allocate and communicate to personnel their responsibilities. 	 Types of evidence can include: Human resource calculations and planning. Organisational charts showing allocations of responsibility. Personnel contracts, letters of appointment, position descriptions, duty statements that explain their responsibilities and the competencies expected. Personnel induction and training plans and records. List or registers of personnel, their positions and sign-off of their competence e.g. skills matrix Demonstration of personnel undertaking their responsibilities in a competent and effective manner. 	 The required outcome is for the establishment to demonstrate: that it has identified and secured the human resources it needs to undertake processing activities in accordance with the Standard; that those resources are competent; and that they have been told what their responsibilities are. The assessment of competency should focus on: understanding the job-tasks being undertaken by personnel; identifying the type of knowledge required to complete the job-task effectively; and describing the skill that would need to be demonstrated to provide evidence that the knowledge is being applied correctly and efficiently. 	Ref [1] Definition of competence Ref [2] Approved Arrangement guidance - Part 1 System Support (Training) Ref [4] Australian Standard AS 4696 - Section 3.5 Ref [3] Export Control (Meat and Meat Products) Rules 2021 Ref [12] Australian Meat Processing Training Package (AMP) (Release 2.2) (Skills Impact – developed by MINTRAC)

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
		In short, knowledge x skill = competence. The establishment should have some way of assessing and recording its authorisation that a person is competent to do the job-task that they have been allocated.	
		Annex B is a normative requirement, meaning that all the job roles listed in the table must have the competencies indicated.	
 5.1.2 The establishment shall identify and allocate responsibilities for fulfilling animal welfare requirements, including specific personnel at each site with responsibility for: a) animal welfare, including stunning, sticking, emergency slaughter and humane killing; b) the day-to-day application of the Standard; and c) animal welfare monitoring activities, including the effectiveness of stunning, sticking, emergency slaughter and humane killing. 	 Types of evidence can include: Organisational charts showing allocations of responsibility. Identification details of personnel. Personnel contracts, letters of appointment, position descriptions, duty statements that explain their responsibilities and the competencies expected. Personnel induction and training plans and records. Demonstration of personnel undertaking their responsibilities in a competent and effective manner. 	See explanation 5.1.1 The responsibilities can be covered by several personnel, provided that there is a clear indication of who is responsible for each element contained within the list items. List item a) requires that specific personnel responsible for animal welfare must be identified. Consider all areas where animal welfare may be affected, such as unloading, provision of feed and water, handling, stunning, sticking, emergency slaughter and humane killing, There are formal training packages available in this area, e.g. MINTRAC provide an Animal Welfare Officer Skill set, which is aimed at personnel with this type of responsibility. List item c) requires personnel to be able to identify abnormal behaviours, signs of stress, injuries, illness, effective/ineffective stunning and slaughter.	Ref [12] Australian Meat Processing Training Package (AMP) (Release 2.2) (Skills Impact – developed by MINTRAC)

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 5.1.3 The establishment shall provide training to personnel that: a) is appropriate to their assigned responsibilities; and b) includes health, safety and emergency preparedness. NOTE Emergencies include fire, injury to livestock or personnel, truck breakdowns or accidents, acts of nature, interruption to supply of resources (for example, power failure), equipment breakdowns and environmental conditions (e.g. extreme heat or cold, flooding, high winds). 	 Types of evidence can include: Personnel training plans and records. List or registers of personnel, their positions and sign-offs of their competence. 	Training can be provided in-house or on external programmes. List items a) and b) require that training is appropriate to an individual's assigned responsibilities and also includes health safety and emergency preparedness. The types of emergencies that need to be covered are listed in the note. The frequency of refresher training for personnel needs to be determined by the establishment. This may vary between the type of roles and the complexity and impact of the tasks being undertaken. What is important is that personnel can demonstrate that they are competent.	Ref [4] Australian Standard AS 4696 - Section 3.5 Ref [12] Australian Meat Processing Training Package (AMP) (Release 2.2) (Skills Impact – developed by MINTRAC)
 5.1.4 For personnel undergoing training, the establishment shall: a) provide direct supervision, by a competent person, when the tasks are high risk for welfare; and NOTE Tasks that are high risk to welfare include animal handling, restraint, stunning, sticking, emergency slaughter and humane killing. b) monitor progress until assessed competent; and c) document training and competencies achieved. 	 Types of evidence can include: Documented procedure or method that includes reference to training and supervision of personnel that are not yet competent. Personnel training plans and records. Personnel progress reports. List or registers of personnel, their positions and sign-offs of their competence. 	See explanation 5.1.1 regarding competency. This required outcome is for the establishment to demonstrate that personnel who are undergoing training (and have not yet been deemed competent) are directly supervised by a competent person, when the tasks are high risk for animal welfare. Examples of high-risk tasks are provided in the note.	Ref [12] Australian Meat Processing Training Package (AMP) (Release 2.2) (Skills Impact – developed by MINTRAC)

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
5.2 Physical resources			
 5.2.1 Infrastructure and equipment shall: a) not cause injury, pain, suffering or distress to the animal; b) allow for effective livestock handling; c) allow livestock to be segregated to the extent necessary to avoid injury, pain, suffering or distress; d) allow aggressive livestock to be removed, or managed, to reduce the likelihood of injury and stress to other animals in the group; e) enable control of environmental conditions, to allow effective thermoregulation; NOTE Environmental conditions can include temperature, humidity, air quality which can be modified and controlled by provision of shade, ventilation or climate control and air conditioning. f) be in good repair and effective working order in accordance with a maintenance schedule. 	 Types of evidence can include: Maintenance schedule and records of maintenance being undertaken. Documented information on safety of electrical installations and automatic equipment. Maintenance and testing of emergency equipment. Documented procedure or method that includes reference to checking equipment and maintenance activities. Photos/videos. Demonstrations of infrastructure and equipment being used. 	The required outcome is for the establishment to demonstrate that it can ensure that infrastructure and equipment works and does not cause harm to livestock. It also makes reference to effective handling of livestock, meaning that the infrastructure and equipment must allow for animals to be handled without causing them injury, fear or stress. There are many examples of facility design that can aid the effective handling and movement of animals. For example, the use of: • non-slip flooring; • races with solid sides and of an appropriate width for the species; • races that allow animals to walk side by side where appropriate, for example, pigs; • races with smooth turns and curved corners to encourage the natural flow of movement of animals; and • ramps angles <20 degrees.	Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments Ref [13] NAMI Recommended handling guidelines and audit guide

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
		List item e) requires that the processing plant can modify or control the environmental conditions that livestock are exposed to. This can involve careful planning (for example, transport overnight for slaughter first thing in the morning) and mitigation strategies (for example, reducing pen stocking density), in addition to actually controlling the thermal environment itself. More specific requirements about infrastructure and equipment are included in the rest of the standard. This requirement also applies to stunning and humane killing equipment, which needs to be maintained in a good state of repair and effective working order. Many ineffective stuns are caused by dirty or defective equipment; therefore, it is important that equipment is cleaned and maintained in accordance with manufacturer's recommendations and both tested and calibrated prior to use. List item f) also applies to VSS equipment.	

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 5.2.2 If defective infrastructure and equipment could cause injury, pain or suffering to livestock, the establishment shall: a) ensure livestock be removed from the area; or b) ensure the infrastructure and equipment is not used until repaired. 	 Types of evidence can include: Documented procedure or method that includes reference to management of defective equipment. Photos/videos. Demonstrations of infrastructure and equipment being used. Demonstration of removal of livestock from defective area/equipment. 	The establishment must demonstrate that if infrastructure and equipment is defective livestock are protected from harm until the problem is fixed. If this cannot be achieved, then the equipment needs to be repaired before it is used.	
5.2.3 The flooring of infrastructure shall allow for effective draining.	 Types of evidence can include: Documented procedure or method that includes reference to the management and maintenance of facilities. Photos/videos. Observation of flooring. 	The establishment must demonstrate that flooring where animals are held or are being moved allows for effective draining. The build-up of water in races etc can act as a distraction during the movement of animals or may cause them to slip and fall. Slipping and falling is a combination of the surface quality and the handling of the animals when on that surface (see also relevant handling requirements - 6.2).	Ref [13] NAMI Recommended handling guidelines and audit guide Ref [4] Australian Standard AS 4696 - Section 19.17 Ref [19] MCOP - Slaughtering establishments

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
5.2.4 Lighting shall be sufficient to aid animal movement and to perform individual animal inspections.	 Types of evidence can include: Documented procedure or method that includes reference to animal handling or movement as affected by lighting. Documented procedure or method that includes reference to livestock inspection. Photos/videos. Demonstrations of livestock inspection procedure. Demonstration of livestock handling procedures. 	The establishment must demonstrate that lighting allows for animals to be inspected. Lighting has to be of an intensity that allows individual animals to be observed and conditions identified. Some compliance requirements may actually specify the intensity required (measured in lux), for example, the export construction guidelines (Ref [21]) specify the use of 110 lux throughout livestock pens and 220 lux in suspect pens. Lighting also needs to allow for the effective movement of animals. Animals generally move more effectively if lighting is uniform or they are moving from a darker to brighter environment.	Ref [13] NAMI Recommended handling guidelines and audit guide Ref [19] MCOP - Slaughtering establishments Ref [21] Export Construction guidelines

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
5.2.5 Lairage holding pens shall allow for livestock to stand up, lie down, turn around and access drinking water.	 Types of evidence can include: Documented procedure or method that includes reference to animal holding conditions including space allowance. Photos/videos. Demonstrations of infrastructure being used. Lairage plan that allows for space allowances to be determined. Recommended stocking density guidance for each pen for relevant classes of animals. Documented information, for example, records of processing numbers and pen allocation. 	The establishment must demonstrate that livestock have sufficient space in the holding facility. The space allowance needs to allow animals to stand up, lie down and move around the pen to access water. If livestock are stocked in the pen too tightly, it can also make it difficult for handlers to empty the pen. Space allocation may vary depending upon animal size, behaviour, holding time and environmental conditions. These types of factors need to be considered when determining appropriate space allowances in the holding facilities. The minimum recommended space allowances (Ref 19) for sheep, pigs and goats is 0.6m ² per head. For cattle it is 1.9m ² per head. For deer, buffalo and horses, it may be necessary to consult the relevant compliance requirements or further information, such as the Model Codes of Practice for buffalo and deer.	Ref [4] Australian Standard AS 4696 - Section 7.4 Ref [16] MCOP - Buffalo Ref [18] MCOP - Deer Ref [19] MCOP - Slaughtering establishments

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
5.2.6 Equipment for providing drinking water shall be available and operational in areas where livestock are held. NOTE Areas where livestock are held does not include parts of the handling system where livestock are being moved.	 Types of evidence can include: Documented procedure or method that includes provision and maintenance of equipment used to provide water to livestock. Photos/videos. Observation of equipment. 	The establishment must demonstrate that facilities used to hold livestock are fitted with equipment for providing water. It is not a requirement for watering equipment to be fitted in areas where animals are being moved, for example, races and crowd pens, however these parts of the system therefore cannot be used to hold animals.	Ref [4] Australian Standard AS 4696 - Section 7.4 Ref [16] MCOP - Buffalo Ref [18] MCOP - Deer Ref [19] MCOP - Slaughtering establishments
5.2.7 If livestock are to be fed in the lairage, equipment for providing feed shall be available and operational in areas where livestock are held.	 Types of evidence can include: Documented procedure or method that includes provision and maintenance of equipment used to provide feed to livestock. Photos/videos. Observation of equipment. 	The establishment must demonstrate that when animals are being fed, feeding equipment is available in facilities used to hold livestock. This equipment can be temporary and does not need to be a permanent fitting in the holding area.	Ref [4] Australian Standard AS 4696
5.2.8 Facilities shall be available to segregate and care for weak, injured or ill livestock, where necessary to prevent further pain and distress to the animal.	 Types of evidence can include: Documented procedure or method that includes reference to the facilities that are available for caring for weak, injured or ill livestock. Photos/videos. Observation of facilities. 	The establishment must demonstrate that facilities are available to segregate and care for weak, injured or ill livestock if necessary, to prevent further pain and distress to the animal. Segregation must allow animals to maintain visual and audible contact with animals of the same species. See also 6.4 which covers the daily management of weak, injured or ill livestock.	Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
5.2.9 Equipment for the emergency slaughter and humane killing of livestock shall be available.	 Types of evidence can include: Documented procedure or method that includes reference to the availability and use of stunning/killing equipment. Photos/videos. Demonstration of how equipment can be retrieved when required. Observation of equipment and storage facilities. 	The establishment must demonstrate that equipment for the emergency slaughter and humane killing of livestock is available when needed. This means that there may be a need for equipment to be held in the livestock holding facility, such that there is no delay in retrieving equipment. See also 5.2.1 which covers the requirement for equipment to be maintained in effective working order.	Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments
 5.2.10 A functional video surveillance system shall be installed and operational to clearly monitor the following processes: a) unloading livestock from vehicles into the lairage; b) movement of livestock from the lairage to the stunning area; c) restraint and stunning; d) shackling and hoisting; and e) sticking. NOTE When Controlled Atmosphere Stunning (CAS) systems are used, list item (c) means monitoring entry into and exit from the CAS system. 	 Types of evidence can include: Documented procedure or method covering the installation and use of video surveillance equipment. Photos/videos. Demonstration of use of equipment and observation of footage. 	The use of a VSS represents good practice and provides assurance that the parts of the process that represent a high risk to animal welfare are under surveillance. Where VSS is used, the establishment needs to demonstrate that the cameras are installed in the areas in item list a-e. The cameras need to be in good working order to provide continuous coverage when animals are in the area. It is important that the image is clear to enable effective monitoring. When Controlled Atmosphere Stunning (CAS) systems are used for pigs, list item (c) means monitoring entry into and exit from the CAS system.	

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
5.2.11 The recorded video surveillance footage shall be retained by the establishment for a period of at least one month.	 Types of evidence can include: Documented procedure or method covering the retention of video surveillance footage. Observation of stored footage. 	Any surveillance footage needs to be retained (and accessible) for a minimum period of 1 month (>30 days). Establishments should be aware of any compliance requirements which may require longer retention periods.	

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
6 Management and care of livestock			
6.1 Receival of livestock at the establishment			
 6.1.1 The establishment shall: a) schedule receival to ensure unloading of livestock occurs without delay; b) take immediate action to ensure that any delay in unloading does not compromise animal welfare; and c) take into account the welfare needs of livestock when scheduling slaughter. NOTE An example of taking the welfare needs of livestock into account when scheduling slaughter could be slaughtering bobby calves first. 	 Types of evidence can include: Documented procedure or method that describes scheduling of livestock and covers list items a) to c). Documented information that shows how the welfare needs of livestock is taken into account when slaughter being scheduled, for example, list of priority livestock Photos/videos. Demonstration of the process. 	The required outcome is for the establishment to demonstrate that livestock are unloaded without delay when they arrive at the processing plant. Holding livestock on stationary vehicles is a welfare risk and therefore prompt unloading aims to mitigate against that risk. If a delay does occur and livestock cannot be unloaded immediately, the establishment needs to take immediate action to monitor and take action to avoid any adverse animal welfare outcomes. When scheduling livestock for slaughter it is important that the welfare needs of all livestock are taken into account. Examples include; heavily pregnant animals that should not have been transported, bobby calves, lactating cows, animals that give birth in the processing plant. In the event that heavily pregnant animals, that should not have been transported, give birth in the establishment, the offspring need to be effectively managed. During scheduling for slaughter, total transport times and time off feed and water should be considered.	Ref [19] MCOP - Slaughtering establishments Ref [17] Land Transport Standards and Guidelines

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 6.1.2 The establishment shall advise livestock suppliers of: a) any livestock that were not fit for the intended journey (Annex C); and b) any adverse animal welfare outcomes upon arrival at the processing establishment. NOTE Suppliers can include saleyards. 	 Types of evidence can include: Documented procedure or method for informing livestock suppliers of item lists a-b. Records of livestock condition. Demonstration of the process. Evidence of communication with livestock suppliers (for example, emails, phone log, written notification). 	The required outcome is for the establishment to demonstrate that there is a process for advising livestock suppliers when situations occur as described in list items a) - c). There may also be compliance requirements that require the relevant controlling authority to be notified of any animals that were not fit for the intended journey and any adverse animal welfare outcomes. Ensuring that expectations regarding the fitness of livestock for the intended journey are communicated to livestock suppliers can minimise the risk of receiving weak, ill or injured livestock at the establishment.	Ref [17] Land Transport Standards and Guidelines

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
6.2 Livestock handling			
 6.2.1 Livestock handling shall be undertaken in a manner that: a) uses low stress livestock handling techniques taking into account the animal's natural behaviour; b) does not subject livestock to noise that creates stress or panic; c) does not require livestock to be isolated unless absolutely necessary; d) involves the appropriate use of handling tools; and NOTE Handling tools may include flags, rattles, paddles, electric goads. e) does not subject livestock to unnecessary practices and procedures (Annex D). 	 Types of evidence can include: Documented procedure or method for livestock handling, that covers the method and equipment used. Demonstration of procedures. Monitoring records of performance indicators (for example, vocalisation, slips and falls - see 6.2.2). 	The required outcome is for the establishment to demonstrate that during handling, livestock are not stressed or panicked during handling procedures. List item a) refers to the use of low stress livestock handling techniques that take into account the animal's natural behaviour. One aspect of natural behaviour that is particularly useful when handling livestock is the use of the 'flight zone'. The flight zone is the animal's personal space. The movement of the stockperson into the flight zone will usually provoke movement in the animal. The control of this movement is a basic principle of animal handling. There are more detailed explanations of low stress stock handling techniques in Ref [13] and Ref [15]. List item e) refers to Annex D which is a list of unacceptable practices and procedures. Within annex D there is reference to 'hitting' animals, which implies the use of excessive force. The use of 'excessive force' in this instance would be for example, when the stockperson's elbow is raised above their shoulder height when making contact with the animal or using a handling tool on the animal. Vibrating prods are a relatively recent approach to moving livestock. They have been used successfully for moving pigs.	Ref [4] Australian Standard AS 4696 Ref [13] NAMI Recommended handling guidelines and audit guide Ref [15] OIE Terrestrial Animal Health Code Ref [19] MCOP - Slaughtering establishments

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 6.2.2 During active handling at unloading and from lairage to entry into restraint, the establishment shall monitor the following targets in accordance with Annex A: a) No more than 1% of animals fall; b) No more than 3% of cattle vocalise when under direct and active handling in races, crowd pens and moving into restraint. c) No more than 5% of cattle vocalise when head restraint is used; and d) No more than 5% of pigs vocalise when being moved into the restrainer. NOTE A restrainer for pigs may include a gondola, restrainer for automatic electrical stunning, or stun box. 	 Types of evidence can include: Documented procedure or method for the monitoring of animal handling during unloading and up to the point of restraint (as per Annex A). Demonstration of the monitoring process. Monitoring records for list items a) - d), with corrective actions where targets are not fulfilled. 	The required outcome is for the establishment to demonstrate that it has processes in place to monitor animal handling during unloading and up to the entry into restraint. Appendix 01 describes animal welfare monitoring procedures and associated performance indicators. It should be noted that these are mandatory limits (See Annex A of the Standard) and the establishment should work towards demonstrating continuous animal welfare improvement by analysing their performance and introducing more stringent targets. Monitoring slips is a secondary performance indicator that can also be used.	Ref [13] NAMI Recommended handling guidelines and audit guide Ref [Appendix 01 of this guidance document]

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 6.2.3 Where electric goads are used to move livestock, they shall: a) be used in accordance with compliance requirements; b) be used only on livestock older than 3 months of age; c) not be applied to genital, anal, facial areas or udders; d) not be used on livestock that are unable to move away; e) be used on less than 25% of cattle and buffalo; f) be used on less than 5% of sheep and goats and only at the entrance to the restrainer; g) be used on less than 5% and 25% of pigs in group and single file systems respectively; h) not be used on horses or deer; and i) not be used in an unreasonable manner (Annex D) on any animal. 	 Types of evidence can include: Documented procedure or method for the use of electric goads. Description and demonstration of equipment. Demonstration of procedures. Photos/video of procedures. Monitoring records indicative of appropriate use of the electric goad, with corrective actions where targets are not fulfilled. 	The required outcome is for the establishment to demonstrate that when electric goads are used to move livestock, the conditions described in list items a) to i) are fulfilled. List item a) refers to compliance requirements. Compliance requirements are defined as: <i>Any local, regional, national and international:</i> <i>a) statutory or regulatory requirements</i> <i>(including any necessary certificates, permits, licences, permissions, consents);</i> <i>b) requirements in treaties or conventions; and</i> <i>c) contractual requirements.</i>	Ref [13] NAMI Recommended handling guidelines and audit guide Ref [15] OIE Terrestrial Animal Health Code Ref [16] MCOP Buffalo Ref [Appendix 01 in this guidance document] Ref [22] EFSA Panel on Animal Health and Welfare (2020)

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
		They may therefore include any additional customer or contractual requirements that prohibit the use of electric goads. There may also be jurisdictional differences regarding the use of electric goads. For example, they cannot be used to move goats in NSW. It is important that the establishment understands and applies the compliance requirements that are relevant to them. The definition of an electric goad is 'A low voltage (<50 volts) or commercially manufactured electric device designed and used for the purpose of making livestock move.' This means that any electric goads manufactured 'in- house' (i.e. not commercially manufactured) not only need to meet compliance requirements, but there also needs to be evidence that the equipment is low voltage (<50 volts) and that it has been specifically designed and is fit for purpose.	
		This requirement also provides limits for electric goad use. It should be noted that these are mandatory limits, and the establishment should still work towards demonstrating continuous animal welfare improvement by analysing their performance and introducing more stringent targets. An electric goad should not be a handler's primary tool and should be replaced as much as possible with alternative handling tools such as flags, plastic paddles etc. The EFSA	

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
		Panel on Animal Health and Welfare (Ref [22]) recommend that the use of electric goads should be avoided. Establishments trying to work towards best practice in animal welfare should be striving to calmly and effectively move animals through the system, without the need for the use of electric goads or dogs.	
		List item j) refers to Annex D which covers unacceptable practices and procedures. Using an electric goad multiple times on an animal, particularly when animals fail to respond or move or holding the electric goad on the animal is unacceptable.	
		The International standards from the OIE recommends against the use of electric goads on sheep. Electric goads are generally ineffective on sheep because the wool insulates the shock of a properly applied prod. This lack of response could lead handlers to prod animals in sensitive areas such as the anus or vulva, which is unacceptable. NAMI (Ref [13]) states that electric goads should confined to a single application at the entrance to the restrainer and limited to 5 percent or fewer sheep.	
		Electric goads are only effective for moving buffalo in single file races (Ref [16]) and not in parts of the handling system where the buffalo has the ability to turn around.	

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 6.2.4 Where dogs are used to move livestock, they shall: a) be used in accordance with compliance requirements; b) be trained, muzzled and supervised; c) not be used during the handling of horses, pigs or deer; d) not be used during the handling of livestock less than 3 months old; e) not be used on livestock that are unable to move away; and f) when not being used, kept away from areas where livestock are held. 	 Types of evidence can include: Documented procedure or method outlining the use of dogs to move livestock, including consideration of list items a) to f). Demonstration of procedures. Photos/video of procedure. 	The required outcome is for the establishment to demonstrate that any use of dogs is effectively managed. The requirements prohibit the use of dogs during the handling of horses, pigs and deer. List item a) requires that if dogs are used, this is in accordance with compliance requirements. Compliance requirements are defined as: <i>Any local, regional, national and international:</i> <i>a) statutory or regulatory requirements</i> <i>(including any necessary certificates, permits, licences, permissions, consents);</i> <i>b) requirements in treaties or conventions; and</i> <i>c) contractual requirements.</i> They may therefore include any additional customer or contractual requirements that prohibit the use of dogs. List item b) requires dogs to be trained, muzzled and supervised. The intent of this requirement is that the dog is muzzled, under control, responds to commands from the handler and is supervised directly whilst being worked.	Ref [4] Australian Standard AS 4696

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
		List item e) prevents the use of dogs when livestock cannot move away to avoid the pressure. This needs to be particularly considered when animals are being moved into crowd pens and races. The number of dogs used on an individual mob will also impact on the pressure experienced by the livestock and therefore needs to be considered by the establishment. List item f) requires that dogs are kept away from the vicinity of livestock in holding facilities when they are not working. In addition, the establishment should provide dogs with shelter and access to water when they are not working.	
6.3 Daily management of livestock			
6.3.1 Livestock shall be protected from exposure to adverse weather conditions.	 Types of evidence can include: Documented procedure or method for holding livestock. Demonstration of facilities and process. Photos/video of facilities and process. 	This requirement is relevant to any holding of livestock. The required outcome is for the establishment to demonstrate that livestock are protected from adverse weather conditions. For example, providing shade in lairage areas, when animals are at risk of heat stress.	Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
6.3.2 Clean, palatable water shall be available and accessible to livestock at all times while they are held. NOTE Clean, palatable water means that it is suitable for livestock to drink. It does not mean potable.	 Types of evidence can include: Documented procedure or methods that includes reference to the provision of clean, palatable water to livestock, for example, details of water source, trough cleaning etc. Demonstration of facilities and process. Photos/video of facilities and process. Observation of condition of water and watering equipment. 	The required outcome of this requirement is for the establishment to demonstrate that when animals are held prior to slaughter they have access to clean, palatable water. Palatable does not mean 'potable' (that being safe for humans to drink), but instead suitable for livestock consumption. The term 'clean' means that it needs to be free from visible physical contamination that would render it non-palatable. Working livestock, for example, dogs and lead animals also need to have access to water.	<i>Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments</i>
6.3.3 All livestock held over 24 hours shall have access to feed that is palatable and free from physical contamination.	 Types of evidence can include: Documented procedure or method for feeding livestock during the holding period. Demonstration of process. Photos/video of process. Documented information, for example feeding records, livestock/pen identification or pen cards. Observation of feed, feeding equipment and feed storage area. 	The required outcome of this requirement is for the establishment to demonstrate that any animals that are held on-site for over 24 hours are given access to feed. The feed needs to be palatable (suitable for and accepted by livestock). Physical contamination can include fouled feeding equipment, stale feed, debris such as string, packaging material, litter. The establishment may also wish to give additional consideration to those animals who have already been off feed for >24 hours due to transport.	Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
6.3.4 Livestock in the lairage shall be inspected upon arrival and at least every 24 hours thereafter, with action taken if any adverse animal welfare outcomes are observed.	 Types of evidence can include: Documented procedure or method for the inspection of livestock during the holding period. Demonstration of process. Photos/video of process. Records of inspection, with details of action taken if any adverse animal welfare outcomes are observed. 	The required outcome of this requirement is for the establishment to demonstrate that there is a process of animal inspection at arrival. The process needs to take into account the possibility of livestock arriving out of hours. Any personnel inspecting animals should be able to identity abnormal behaviour, appearance and signs of ill- health, disease and injury in animals, and have the authority to take the appropriate action if welfare is actually or potentially compromised. Therefore, if unloading is undertaken out of hours, inspection is the responsibility of the truck driver (SA5.14 - Ref [17]), then they too need to be competent. In this scenario, the expectations of the establishment need to be effectively communicated, for example, by signage in the unloading area or the provision of contact numbers directed to employees on- call. Adverse animal welfare outcomes can also include aggressive behaviour between animals, that could lead to stress and injury. Action taken needs to manage this type of behaviour, for example, by segregating the aggressors.	Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments Ref [17] Land Transport Standards and Guidelines

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
6.4 Identification and management of weak, ill or injured livestock			
Livestock that are identified as weak, ill or injured shall be: a) segregated and cared for, where necessary to prevent further pain and distress to the animal; NOTE: Segregation involves maintaining audible and visual contact with livestock of the same species. b) only moved if movement will not cause any further pain or distress; and c) subject to emergency slaughter or humane killing if deemed to be suffering.	 Types of evidence can include: Documented procedure or method that includes reference to management of weak, ill or injured livestock. Documented procedure or method that includes reference to emergency slaughter. Demonstration of procedures. Observation of segregation facilities. Records of casualty slaughter. 	See also 5.2.8 which covers the provision of facilities for the segregation of weak, injured or ill livestock. The required outcome is for the establishment to demonstrate that any weak, ill or injured livestock are segregated and cared for. If moving the animal is likely to cause further pain, injury, suffering or distress then emergency slaughter or humane killing needs to be carried out. The establishment may also need to consider how it will provide appropriate care for any weak, ill or injured livestock out of hours (including any animals arriving at the establishment - see also 6.3.4). There may also be compliance requirements that require the relevant controlling authority to be notified of any animals that are diseased or ill, or any adverse animal welfare outcomes. For example, there is a requirement to advise the state authority without delay if the occupier is aware of an animal affected by a notifiable disease being presented or suspects an animal of being affected.	Ref [4] Australian Standard AS 4696 Ref [19] MCOP - Slaughtering establishments Ref [13] NAMI Recommended handling guidelines and audit guide

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
7 Humane stunning and sticking processes			
7.1 Restraint			
 7.1.1 Livestock shall be restrained for stunning using a method that: a) is designed and operated effectively for the species and type of livestock processed. b) allows the animal to be positioned for effective stunning; and c) does not involve the use of unacceptable practices and procedures, included in Annex D. 	 Types of evidence can include: Documented procedure or method that includes reference to the appropriate design and operation of restraint. Manufacturer's information. Demonstration of the procedure. Monitoring records of performance indicators indicative of an effective restraint method (for example, animal behaviour in restraint, duration in restraint, falls, handling techniques, effective stunning). 	The required outcome is for the establishment to demonstrate that an effective method for restraining livestock prior to stunning that satisfies list items a) – c) is used. Restraint methods involve the use of equipment that control the movement of livestock and facilitate effective stunning. List item a) It is important that the restraint method used is appropriate for the species and type of livestock being processed, for example, head restraint is not an acceptable method for restraining horses. In some establishments, the same restraint equipment may be used for more than one species. In this case, the equipment needs to be appropriate for each type of livestock being processed. List item b) - It is important that restraint methods keep conscious animals in an upright position (for example, boxes that rotate conscious animals would not fulfil this requirement) and ensure that they do not fall, lose balance or escape. List item c) refers to Annex D which is a list of prohibited unacceptable practices and procedures. Ref [15] also contains a list of practices that should be avoided during the restraint of animals.	Ref [4] Australian Standard AS4696 - Section 7.11 Ref [19] MCOP - Slaughtering establishments Ref [13] NAMI Recommended handling guidelines and audit guide Ref [15] OIE Terrestrial Animal Health Code

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 7.1.2 The establishment shall ensure that: a) livestock are not left in restraint, single file races or without access to water during scheduled breaks in processing; and b) during delays, the welfare of livestock is monitored and action is taken if welfare is compromised. NOTE Appropriate action may involve removing livestock from the handling system and returning them to holding pens. 	 Types of evidence can include: Documented procedure or method that includes reference to the management of livestock during delays or breaks during processing. Demonstration of the procedure. Monitoring records, with corrective action taken if welfare is compromised. 	The required outcome is for the establishment to demonstrate that livestock are managed effectively in the event of scheduled breaks and delays during processing.	Ref [13] NAMI Recommended handling guidelines and audit guide Ref [19] MCOP - Slaughtering establishments
7.1.3 When adult cattle or pigs are being moved into restraint for stunning, the establishment shall monitor vocalisation and use of electric goads in accordance with 6.2.2 and 6.2.3 as appropriate.	 Types of evidence can include: Documented procedure or method that covers the movement of livestock into restraint and includes reference to monitoring of vocalisation and use of electric goads. Demonstration of monitoring procedure. Monitoring records, with corrective actions where targets are not fulfilled. 	The required outcome of this requirement is for the establishment to demonstrate that it monitors vocalisation and the use of the electric goad during the movement of cattle and pigs into restraint. The details of the required monitoring process are covered by 6.2.2 and 6.2.3. Appendix 01 describes animal welfare monitoring procedures and associated performance indicators.	Ref [13] NAMI Recommended handling guidelines and audit guide Ref [Appendix 01 of this guidance document]

	GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
7.1.4 After effective restraint, the animal shall be stunned without delay.	 Types of evidence can include: Documented procedure or method that includes reference to restraint and stunning. Demonstration of the procedure. 	The required outcome of this requirement is for the establishment to demonstrate that animals are stunned 'without delay' – This means that stunning needs to be performed as soon as the animal is effectively restrained. Restraint is a stressful event for livestock, therefore the stunning operative needs to be ready to stun the animal as soon as it is effectively restrained.	Ref [4] Australian Standard AS4696 Section 7.9 and 7.10Ref [19] MCOP - Slaughtering establishments Ref [13] NAMI Recommended handling guidelines and audit guide Ref [15] OIE Terrestrial Animal Health Code
7.2 Stunning procedures			
7.2.1 Livestock shall be effectively stunned prior to sticking, using a permitted method as described in Annex E.	 Types of evidence can include: Documented procedure or method that includes reference to the stunning process. Demonstration of stunning equipment and process. Observation of equipment. Manufacturer's instructions and recommendations. 	The required outcome is for the establishment to demonstrate that livestock are stunned prior to sticking using only the permitted methods that are specified in Annex E. Appendix 02 of this guidance document - Stunning parameters - can be used to develop your procedures around effective stunning methodology, providing evidence for this requirement (7.2.1). It provides guidance on additional stunning conditions that can be implemented to demonstrate that the requirement has been fulfilled.	<i>Ref [Appendix 02 of this guidance document]</i>

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
7.2.2 The establishment shall ensure that monitoring of stunning effectiveness is performed in accordance with a documented procedure (Annex A).	 Types of evidence can include: Documented procedure or method that includes reference to the stunning process. Demonstration of stunning and stun monitoring procedures. Monitoring records indicative of effective stunning, with corrective actions where targets are not fulfilled. 	 The required outcome of this requirement is for the establishment to demonstrate that it has processes for monitoring the effectiveness of the stunning process. The minimum mandatory targets are as follows: When penetrating captive bolt and nonpenetrating percussive devices are used, at least 96% of animals are stunned effectively with the first application of the stunning method. When electrical stunning is used, at least 99% of animals have the electrodes applied in the optimum position and 98% or more of the animals show no sign of starting the process of return of consciousness. When controlled atmosphere (CO2) stunning is used, 98% or more of animals show no signs of starting the process of return of consciousness. Appendix 01 describes animal welfare monitoring procedures and associated performance indicators. Appendix 02 describes the signs of effective stunning. 	Ref [13] NAMI Recommended handling guidelines and audit guide Ref [Appendix 01 of this guidance document] Ref [Appendix 02 of this guidance document] Ref [Appendix 03 of this guidance document]

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
7.2.3 Where the first application is not effective or the animal shows signs of recovery before death, the animal shall be re-stunned immediately, using a back-up method if required.	 Types of evidence can include: Documented procedure or method that includes reference to the stunning process and under what circumstances a back-up method needs to be used. Demonstration of the procedure. Records of back-up action (for example, record of animals shot a second time). 	The use of a back-up method is to ensure that in the event of failure of the primary stunning/slaughter method (where signs of consciousness persist or return), animal welfare is protected. Evidence of fulfilling this requirement would include demonstration that a back-up method is immediately available (that is in accordance with Annex E) and it is administered when required. This can also be supported by documented information. The back-up method needs to be effective and appropriate for the primary stunning method, for example, if a bovine has been shot once with a non- penetrating percussive device (and the stun was ineffective), then it is not good practice to administer a second shot using a non- penetrating device and an alternative back- up method may need to be used (e.g. a penetrating captive bolt or free bullet). It may also be acceptable for the re-stun to be administered with the primary stunning equipment, if the cause of the ineffective stun was not related to equipment malfunction.	Ref [13] NAMI Recommended handling guidelines and audit guide

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 7.2.4 The establishment shall ensure that: a) effective stunning is confirmed before hoisting or sticking commences; b) livestock remain unconscious during the period between stunning and death; and c) insensibility on the bleed rail is monitored in accordance with a documented procedure (Annex A), where 100% of animals remain unconscious from stunning until death. 	 Types of evidence can include: Documented procedure or method that includes reference to the stunning and slaughter process. Documented procedure or method that includes reference to the monitoring of Insensibility on the bleed rail. Describe or demonstrate action relating to the stunning and slaughter process. Monitoring records indicative of effective stunning and slaughter, with corrective actions where targets are not fulfilled. 	The critical part of this requirement is that the chosen process must result in unconsciousness that lasts until the animal is dead, thus sticking has to be carried out immediately before the animal can potentially recover from the stun. The term insensibility is synonymous with 'unconsciousness'. It is important that any animals showing signs of recovering consciousness (even if still unconscious) are humanely killed using a back-up method. Appendix 01 describes animal welfare monitoring procedures and associated performance indicators.	Ref [4] Australian Standard AS 4696 Ref [13] NAMI Recommended handling guidelines and audit guide Ref [19] MCOP - Slaughtering establishments Ref [Appendix 01 of this guidance document]

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
7.3 Sticking procedures			
7.3.1 Sticking shall be performed using:a) throat cut severing both carotid arteries; orb) thoracic sticking severing the major blood vessels close to the heart.	 Types of evidence can include: Documented procedure or method that includes reference to the sticking procedure used. Demonstration of procedure. 	The required outcome is for the establishment to demonstrate that sticking methods sever the major blood vessels resulting in optimal blood loss (and rapid brain death), whilst the animal is unconscious.	<i>Ref [19] MCOP - Slaughtering establishments</i>
7.3.2 In cattle and buffalo (including calves), where an initial throat cut is used, a thoracic stick shall be performed after cutting the throat in accordance with compliance requirements.	 Types of evidence can include: Documented procedure or method that includes reference to the use of thoracic sticking and demonstrates that compliance requirements are being followed. Demonstration of procedure. 	The required outcome is for the establishment to demonstrate that it understands and applies any compliance requirements for the slaughter of cattle and buffalo (including calves) relating to the use of a thoracic stick after throat cutting. It is important that thoracic sticking is used in bovines, due to their vascular anatomy. A neck stick in bovines can lead to a prolonged time to brain death due to continued blood flow to the brain.	Ref [4] Australian Standard AS 4696 - Subclause 7.10 Ref [14] Meat Notice: Mandatory thoracic sticking of calves Ref [19] MCOP - Slaughtering establishments

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
7.3.3 Dressing procedures shall not be performed before the animal is confirmed as dead . NOTE Dressing procedures do not include esophageal occlusion, which may be performed when the animal has been confirmed as unconscious.	 Types of evidence can include: Documented procedure or method that includes reference to confirmation of death prior to the initiation of any dressing procedures. Demonstration of procedure. Demonstration of checks for signs of consciousness on the bleed rail Documented information related to checks performed. 	The required outcome is for the establishment to demonstrate that brain death is confirmed prior to any further dressing procedures (e.g. cuts to the carcass, evisceration processes etc) are performed. The note explains that dressing procedures do not include esophageal occlusion, which may be performed once the animal has been confirmed as effectively stunned (unconscious). See Appendix 03 - Assessment of effective stunning and killing.	Ref [3] Export Control (Meat and Meat Products) Rules 2021 Ref [19] MCOP - Slaughtering establishments Ref [Appendix 03 in this guidance document]

		GUIDANCE	
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)
 7.3.5 In cattle, where foetal blood is collected, the establishment shall ensure that: a) the welfare of the foetus is safeguarded by ensuring that it remains unconscious throughout the procedure; and b) if there is any doubt about the consciousness of the foetus, it is killed immediately in accordance with Annex E. 	 Types of evidence can include: Documented procedure or method that includes reference to how the unconsciousness in the foetus is ensured, and the methods used to kill it should it regain consciousness. Describe and provide evidence, or demonstrate action relating to the process. Demonstration of procedure. Monitoring records, with corrective action when there is a deviation from the required outcome. 	The required outcome is for the establishment to demonstrate that the welfare of the foetus is protected during foetal blood collection. This involves ensuring that the foetus remains unconscious during the procedure and taking immediate action to kill the foetus should there be any doubt as to its consciousness (i.e. concerns that the foetus may not be unconscious). Annex E in the Standard provides a description of the methods that can be used for this purpose. Annex A in the Standard requires that the organisation develops a documented procedure for foetal blood collection. The OIE recommends that foetuses should not be removed from the uterus sooner than 5 minutes after the maternal neck or chest cut to ensure the absence of consciousness (Ref [15]). Leaving the foetus in the uterus after slaughter of the cow reduces the risk of consciousness. During normal abattoir procedures, a foetus is not removed from the uterus until 20–35 minutes after the slaughter of the cow Ref [20]. The RSPCA (Ref [23]) have also produced guidelines around foetal blood collection in their position paper.	Ref [15] OIE Terrestrial Animal Health Code Ref [20] AVA guidelines Ref [23] RSPCA Position paper

		GUIDANCE		
REQUIREMENT	Examples of evidence	Explanation	Further knowledge and references (See Bibliography)	
Annex A - Documented procedures				
Annex B - Personnel competencies		The components of competency are drawn from the Australian Government Department of Industry, Innovation, Science, Research and Tertiary - AMPA2006 Apply animal welfare and handling requirements and AHCLSK217 Apply animal welfare principles to handling and husbandry of livestock - <u>www.training.gov.au</u> . AMPA2006 forms part of the MINTRAC Animal Welfare Officer skill set.		
Annex C - Fitness for transport				
Annex D - Unacceptable practices and procedures				
Annex E - Permitted stunning methods		The establishment is required to use a stunning method detailed in Annex E. The choice of method needs to meet the conditions described in the table and also enable other requirements in the Standard to be fulfilled, for example, other requirements in Section 7.2 (including effective stunning targets). This means that the establishment needs to consider factors such as the effect of animal type on stunning efficacy. A good example of this is the use of non-penetrating percussive stunning for bulls. Due to the thicker skull of bulls compared to other cattle, non-penetrating stunning may only be suitable for smaller calves and cows.		

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Animal welfare monitoring and performance indicators

Annex A of the Standard requires a documented procedure for monitoring animal welfare. This guidance (Appendix 01) can be used to develop your documented procedure.

Within the Standard there are several requirements that describe the processes that must be monitored and the criteria (and targets) that must be used. These are summarised in Table 01 below.

Table 01: Animal welfare monitoring criteria and targets required by the Standard

Monitoring criteria	Definition	Species	Target	Area of process	Assessment methodology	Sample	Requirement reference
Falls	Standard definition 3.9: Occurs when an animal loses an upright position suddenly in which a part of the body other than the limbs touches the ground. Ref [13].	All	<1%	- Unloading - Handling	Falls are to be assessed in the unloading area, when all four of the animal's limbs are on the unloading ramp or unloading dock. Falls are also to be assessed during handling, when moving livestock to the stunning point.	Assess 50 - 100 animals - Calculate the percentage of animals that fall.	6.2.2 (a)
Vocalisation	Vocalisation Standard definition 3.24: Moo or bellow in cattle as a consequence of direct active handling in the race or crowd pen or during restraint (eg in the stun box). Squeal in pigs. A squeal is an extended sound produced with an open mouth, indicating excitement, fear, or pain. Squealing that occurs when pigs root under each other or jump on	Cattle	<3%	- Handling	The assessment of vocalisation during the handling of cattle is to be carried out when an individual animal is under active and direct handling. For example, during movement into the stun box.	Assess 50 - 100 animals - Calculate the percentage of animals that vocalize. Do not count individual vocalisations.	6.2.2 (b)
		Cattle	<5%	- Head restraint	The assessment of vocalisation during application of head restraint in cattle is to be carried out from the time that the head restraint is applied.	Assess 50 - 100 animals - Calculate the percentage of animals that vocalise. Do not count individual vocalisations.	6.2.2 (c)
	top of each other is counted if provoked by the application of electric goads, yelling, poking, or hitting the pigs. Ref [13].	Pigs	<5%	- Movement into restrainer	The assessment of vocalisation in pigs needs to be performed as they are being moved into the restrainer. Vocalisation scoring is only performed for pigs being moved into a single file conveyor restrainer (for electrical stunning or CO ₂ Systems). Vocalisations are not assessed in group CO ₂ systems as it is too difficult to pinpoint the source.	Assess 50 - 100 animals - Calculate the percentage of animals that vocalise. Do not count individual vocalisations.	6.2.2 (d)

Monitoring criteria	Definition	Species	Target	Area of process	Assessment methodology	Sample	Requirement reference
Use of electric Standard definition goad 3.7: A low voltage (<50	Cattle, buffalo	<25%	During handling	Touching an animal with and electric goad is counted, whether a shock is delivered or not. Do not count multiple	Assess 50 - 100 animals to calculate	6.2.3 (e)	
	volts) or commercially manufactured electric	Sheep, goats	<5%	During movement into the restrainer	applications of the goad on a single animal as individual events.	the percentage of animals handled with the electric goad.	6.2.3 (f)
	device designed and used for the purpose of making livestock	Pigs	<5%	During handling in group systems	Note: For deer and horses, an electric goad must not be		6.2.3 (g)
	move.	Pigs	<25%	During handling in single-file races	used, therefore the target is 0%		6.2.3 (g)
Application of electrodes in optimum position		All	>99%	Electrical stunning	With electrical stunning, the assessor evaluates both electrode placement and effective stunning. For electrodes to be applied in the optimum position, they need to 'span the brain'. The first position should be scored, even if the operator subsequently adjusts the position or reapplies the electrodes.	Assess 50 – 100 animals to calculate a percentage of animals with optimal electrode position.	7.2.2
Effective stunning Standard definition 3.18: The procedure for rendering an animal unconscious and insensible to pain.	Cattle and buffalo	>96%	Penetrating and non- penetrating mechanical stunning methods - first application	Assess animals after the application of the first shot. Some plants routinely shoot heavy animals (e.g. large bulls) twice (security stun). In this situation, the assessor must examine the state of the animal after the first shot (before the second shot is applied) (Ref [13])	Assess 50 - 100 animals to calculate the percentage of animals stunned effectively with the	7.2.2	
		All	>98%	Electrical stunning	Assess animals after removal of the electrodes for signs of returning consciousness (see Appendix 03)	chosen stunning method.	7.2.2
		Pigs	>98%	Controlled atmosphere (CO ₂) stunning	Assess animals at the exit of the CAS system for signs of returning consciousness (See Appendix 03)		7.2.2
Bleed rail insensibility (Unconsciousness)	Standard definition 3.23: State of unawareness (loss of consciousness) in which there is temporary or permanent disruption to brain function, during which the animal does not feel pain.	AI	100%	From confirmation of stun until death	Consciousness and unconsciousness occur in essentially three phases; 1) Definitely unconscious; 2) Transition phase before sensibility (consciousness); 3) Definitely conscious. During the transition phase, it is possible to observe indicators of a return to, however this does not mean that the animal is sensible. If this is observed, then a back-up method needs to be applied immediately. If this type of immediate correction is taken before the animal is fully sensible (conscious) then this does not count towards the bleed rail insensibility score. Only animals that are in phase 3 (definitely conscious) should be counted as a non- conformity with this requirement.	Assess 50 - 100 animals to calculate a percentage of animals that remain stunned (unconscious) on the bleed rail.	7.2.4 (c)

Low processing numbers - A minimum of 100 animals should be assessed in large plants, however for plants processing less than 100 animals/hr this number can be reduced to 50. For processing plants that slaughter low numbers of animals (usually classed as less than 50 animals/hour one hour of production can be assessed. For a more accurate assessment in small plants, data collected over a period of time should be averaged. An assessment of averaged data may also need to be used during third party audits.

Stunning parameters

This guidance (Appendix 02) can be used to develop your procedures around effective stunning methodology, providing evidence for requirements 7.2.1, which requires livestock to be stunned in accordance with Annex E of the Standard. The Standard is focused on the outcome of achieving effective stunning. Table 03 provides guidance on additional stunning conditions that can be implemented to demonstrate that the requirement has been fulfilled; however, it must be recognised that columns 4 and 5 are guidance only and not mandatory requirements.

Table 03: Recommended parameters for effective stunning

Anı	nex E of the Star	ndard - Mandatory requirements	GUIDANCE ONLY			
Stunning method	Species	Parameters	Recommended conditions	Recommended stun to stick interval		
Non-penetrating percussive device	Cattle and buffalo	Equipment to be applied according to manufacturer's recommendations for appropriate position and power (charge, air-pressure, etc.).	Shot position - Refs [13] [17]	20 seconds (Ref [15] - OIE)		
	Sheep and goats	Equipment to be applied according to manufacturer's recommendations for appropriate position and power (charge, air-pressure, etc.).	Shot position - Refs [13] [17]	20 seconds (Ref [15] - OIE)		
Penetrating captive bolt	All species	Equipment to be applied according to manufacturer's recommendations for appropriate position and power (charge, air-pressure, etc.).	Shot position - Refs [13] [17]	There is no maximum stun to stick interval for penetrating captive bolt (Ref [13] [15] - OIE)		
Free bullet	All species	Equipment to be applied in the correct position with appropriate gauge used. Suitable as an emergency method as local laws allow	Shot position - Ref [17]	Killing method - No recommended stun to stick interval		
Head-only electrical stunning	Cattle and buffalo	Electrode shall span the brain. Minimum current to produce an immediate stun.	Minimum applied current Cattle - 1.28A (Ref [22]), 1.5A (Ref [15]) Calves - 1.0A (Ref [15]), 1.25A (Ref [22])	10 seconds (Ref [13])		
	Sheep and goats	Electrode shall span the brain. Minimum current to produce an immediate stun.	Minimum applied current Sheep and goats - 1.0A (Ref [15]) Lambs - 0.7A (Ref [15]), 0.6A (Ref [19])	10 seconds (Ref [13]) 15 seconds (Ref [19])		
	Pigs	Electrode shall span the brain. Minimum current to produce an immediate stun.	Minimum applied current - 1.25A (Ref [15])	15 seconds (Ref [13])		

Table 03 continued

Anı	າex E of the Star	ndard - Mandatory requirements	GUIDANCE ONLY			
Stunning method	Stunning method Species Param		Recommended conditions	Recommended stun to stick interval		
Head to body electrical stun/kill	Cattle and buffalo	Electrode shall span the brain and the heart. Minimum current to produce an immediate stun.	Minimum applied current (head electrodes) Cattle - 1.5A (Ref [15] [19]) Calves - 1.0A (Ref [15])	There is no maximum stun to stick interval for stun/kill methods		
	Sheep and goatsElectrode shall span the brain and the heart.Minimum current to produce an immediate stun.		Minimum applied current (head electrodes) Sheep and goats - 1.0A (Ref [15]) Lambs - 0.7A (Ref [15])	There is no maximum stun to stick interval for stun/kill methods		
	Pigs	Electrode shall span the brain and the heart. Minimum current to produce an immediate stun.	Minimum applied current (head electrodes) - 1.25A (Ref [15])	There is no maximum stun to stick interval for stun/kill methods		
Carbon dioxide	Pigs	Equipment to be used according to manufacturer's recommendations in relation to dwell time and gas concentration.	Minimum dwell time – >3 minutes CO ₂ concentration - preferably 90% by volume but in any case, no less than 80% by volume (Ref [15]) Loading of gondolas (Ref [13])	60 seconds (Ref [15] - OIE)		

Assessment of effective stunning and killing

	PHYSICAL AND BEHAVIOURAL SIGNS							
STUNNING METHODOLOGY	Physical activity	Breathing	Vocalisation	Response to pain	Head	Eyes		
Non-penetrating percussive device	Immediate collapse, uncoordinated kicking may follow	Absent	None	No reaction to a painful stimulus	Hangs straight down, floppy	No spontaneous blinking, eyes open, blank stare, no response to touch. Nystagmus absent.		
Penetrating captive bolt	Immediate collapse, uncoordinated kicking may follow	Absent	None	No reaction to a painful stimulus	Hangs straight down, floppy	No spontaneous blinking, eyes open, blank stare, no response to touch. Nystagmus absent.		
Free bullet	Immediate collapse, uncoordinated kicking may follow	Absent	None	No reaction to a painful stimulus	Hangs straight down, floppy	No spontaneous blinking, eyes open, blank stare, no response to touch. Nystagmus absent.		
Head-only electrical stunning	Induction of epileptic seizure where animal collapses, becomes rigid (tonic phase), followed by gradual relaxation and uncoordinated kicking (clonic phase)	may show agonal gasping	None	No reaction to a painful stimulus	Hangs straight down, floppy (after tonic phase). The neck/head of sheep may hang at an angle, but should be floppy	Eyes may vibrate (nystagmus). May see downward movement of eyeballs. No spontaneous blinking.		
Head to body electrical stun/kill	Animal collapses becomes rigid (tonic phase), followed by gradual relaxation and no further movement	Absent, but livestock may show agonal gasping	None	No reaction to a painful stimulus	Hangs straight down, floppy (after tonic phase). The neck/head of sheep may hang at an angle, but should be floppy	Eyes may vibrate (nystagmus). May see downward movement of eyeballs. No spontaneous blinking.		
Carbon dioxide	Relaxed body at exit, some uncoordinated kicking may be observed	Absent	None	No reaction to a painful stimulus	Hangs straight down, floppy	No spontaneous blinking. Nystagmus absent.		

Death of the animal can be confirmed when there is permanent absence of brain stem activity (for example, absence of breathing and eye reflexes).



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