

IMPORTANT NOTICE

Regulation 6(2) of the *Animal Welfare (General) Regulations 2003* modifies some of the existing adopted codes of practice by providing that, to the extent that the code applies to the transport process (as defined in the *Animal Welfare (Transport, Saleyards and Depots) (Cattle and Sheep) Regulations 2020*), the transport process is to be undertaken in accordance with the Australian Animal Welfare Standards and Guidelines for Land Transport of Livestock (which is also an adopted code of practice). These modifications come into effect on 3 October 2020.

A copy of regulation 6(2) is provided below.

6. Codes of practice adopted (s. 94(2)(d))

- (2) Under section 94(2)(d) of the Act, the code of practice relating to the use, care, welfare, safety or health of animals specified in column 2 of each item in the Table is adopted as it exists on the day on which the *Animal Welfare (General) Amendment Regulations 2020* regulation 4 comes into operation, with the modification specified in column 3 of the item.

Table

Column 1 Item	Column 2 Code of practice	Column 3 Modification
1.	<i>Code of practice for goats in Western Australia</i> , first published by the Department of Local Government and Regional Development in March 2003	In the Introduction after the 1 st paragraph insert: To the extent that this Code applies to the transport process for goats in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.
2.	<i>Code of practice for farmed buffalo in Western Australia</i> , first published by the Department of Local Government and Regional Development in March 2003	In the Introduction clause 1.1 after the 2 nd paragraph insert: To the extent that the Code applies to the transport process for buffalo in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.

Column 1 Item	Column 2 Code of practice	Column 3 Modification
3.	<i>Code of practice for farming deer in Western Australia</i> , first published by the Department of Local Government and Regional Development in March 2003	In the Introduction after the 2 nd paragraph insert: To the extent that the Code applies to the transport process for deer in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.
4.	<i>Code of practice for pigeon keeping and racing in Western Australia</i> , first published by the Department of Local Government and Regional Development in March 2003	In the Preface after the 2 nd paragraph insert: To the extent that this Code applies to the transport process for pigeons in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.
5.	<i>Code of practice for poultry in Western Australia</i> , first published by the Department of Local Government and Regional Development in March 2003	In the Introduction after the 3 rd paragraph insert: To the extent that this Code applies to the transport process for poultry in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time. Delete Part 15 titled “Transport of Poultry”.
6.	<i>Code of practice for sheep in Western Australia</i> , first published by the Department of Local Government and Regional Development in March 2003	In the Introduction after the 2 nd paragraph insert: To the extent that the Code applies to the transport process for sheep in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.

Column 1 Item	Column 2 Code of practice	Column 3 Modification
7.	<p><i>Code of practice for the capture and marketing of feral animals in Western Australia</i>, first published by the Department of Local Government and Regional Development in March 2003</p>	<p>In the Introduction after the 1st paragraph insert:</p> <p>To the extent that this Code applies to the transport process for feral animals in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.</p> <p>In Part B under the heading “Transportation” delete “Operators should refer to other relevant State Codes of Practice for specific guidelines on transport”.</p>
8.	<p><i>Model Code of Practice for the Welfare of Animals: Husbandry of Captive-Bred Emus</i> (2nd edition), first published by the Primary Industries Ministerial Council in 2006</p>	<p>In the Introduction after clause 1.1 insert:</p> <p>1.1A To the extent that the Code applies to the transport process for emus in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.</p>
9.	<p><i>Model Code of Practice for the Welfare of Animals: Livestock at Slaughtering Establishments</i>, first published in 2001 (paperback) and 2002 (online) by CSIRO publishing, acting on behalf of the Primary Industries Ministerial Council</p>	<p>In the Introduction delete clause 1.3 and insert:</p> <p>1.3 To the extent that this Code applies to the transport process for livestock animals to slaughtering establishments in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.</p>

Column 1 Item	Column 2 Code of practice	Column 3 Modification
10.	<i>Model Code of Practice for the Welfare of Animals: Pigs</i> (3 rd edition), first published by the Primary Industries Ministerial Council in 2008	In the Introduction after clause 1.1 insert: 1.1A To the extent that the Code applies to the transport process for pigs in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.
11.	<i>Model Code of Practice for the Welfare of Animals: The Camel</i> (2 nd edition), first published by the Primary Industries Ministerial Council in 2006	In the Introduction after the 1 st paragraph insert: To the extent that the Code applies to the transport process for camels in Western Australia, the transport process is to be undertaken in accordance with the <i>Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock</i> (Edition 1, Version 1.1, 21 September 2012), published by Animal Health Australia (AHA), Canberra, as it is amended from time to time.

**Primary Industries Standing Committee
Model Code of Practice for the Welfare
of Animals**

**Livestock at Slaughtering
Establishments**

SCARM Report 79



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PREFACE

The Australian Model Codes of Practice for the Welfare of Animals have been prepared for the Standing Committee on Agriculture and Resource Management (SCARM) by representatives of State and Federal Departments with responsibility for agriculture and/or animal welfare, CSIRO and other relevant committees within the SCARM system. Extensive consultation also takes place with industry and animal welfare groups in the development of the Codes.

This Model Code of Practice was endorsed by the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) as a national code at its eighteenth meeting in August 2000.

The Codes are intended as models to enable the States to develop codes of practice to meet their individual needs. The Model Codes of Practice that have been endorsed by ARMCANZ (and its predecessor, the Australian Agricultural Council) are:

- Animals at Saleyards (1991)
- Buffalo, Farmed (1995)
- Camel (1997)
- Cattle (1992)
- Cattle, Land Transport of (1999)
- Deer, Farming of (1991)
- Feral Animals, Destruction or Capture, Handling and Marketing of (1991)
- Goat, The (1991)
- Horses, Land transport of (1997)
- Livestock, Air Transport of (1986)
- Livestock, Rail Transport of (1983)
- Livestock, Road Transport of (1983)
- Livestock, Sea Transport of (1987)
- Pig, The (2nd Edition) (1998)
- Pigs, Land Transport of (1997)
- Poultry, The Domestic (3rd edition) (1995)
- Poultry, Land Transport of (1998)
- Rabbits, Intensive Husbandry of (1991)
- Sheep, The (1991)

and by agreement with the National Health and Medical Research Council and the CSIRO:

- Care and Use of Animals for Scientific Purposes (1997)

The following Code is based on current knowledge and technology. It will be reviewed in five years to take account of advances in the understanding of animal physiology and behaviour, technological changes in animal husbandry and their relationship to the welfare of animals.

1 INTRODUCTION

- 1.1 This Code of Practice is intended as a standard to all people including truck drivers, stockmen, slaughtering staff, inspectors, veterinarians and abattoir management and the employees involved in the management of animals of various species at slaughtering establishments (abattoirs, slaughter-houses and knackeries). It includes aspects of unloading, pre-slaughter handling and the slaughter process. It aims to encourage the efficient, considerate treatment of animals so that stress is minimised. It includes a section about emergency slaughter of sick, crippled and 'downer' animals. Techniques for the humane destruction of animals are also described in the Code.
- 1.2 Travel by road or rail to the slaughtering establishment imposes some stress on most animals. Stress and injuries associated with transport should be considered by people responsible for the welfare of animals at slaughtering establishments.
- 1.3 Codes of Practice have been developed for the major species of livestock transportation in Australia. This Code should be read in conjunction with the Transport codes.
- 1.4 Procedures at slaughtering establishments also subject animals to a number of stresses and potentially injurious events. Stressful events may include:
 - yarding and handling;
 - restricted access to food and water;
 - unfamiliar surroundings, noises and sensations;
 - exposure to unseasonal or extreme climatic conditions;
 - crowding or isolation of animals, or inter-mixing strange animals;
 - insufficient care in procedures leading up to and at slaughter;
 - exposure to infectious diseases,
 - unloading.
- 1.5 Each species of animals should be handled according to its characteristics and requirements. The Code describes the best handling and slaughter methods to minimise stress and injury in each species.
- 1.6 It is highly recommended that with the support of Commonwealth and State meat hygiene authorities and the meat industry each slaughtering establishment should develop an Animal Care Statement for inclusion in the company quality assurance program in place at the establishment.
- 1.7 This Code provides detailed information to support quality assurance programs.
- 1.8 A pro-forma Animal Care Statement for Slaughtering Establishments is outlined in Appendix IV of this Code.
- 1.9 This Code is based on knowledge and technology available at the time of publication and may need to be varied in the light of new knowledge.

2 LIVESTOCK (OTHER THAN POULTRY)

2.1 Design and Construction of Unloading Ramps at Abattoirs

- 2.1.1 Unloading facilities must be constructed and maintained so that they do not cause injury, soiling or suffering to animals.
- 2.1.2 At the top of the unloading ramp there should be a flat area not less than one metre in length, and this should be at approximately the same height as the floor of the transport vehicle. To cater for multi-deck transport vehicles, there should be permanently installed ramps for each main level. Alternatively an adjustable ramp, suitable for each species to be unloaded, can be used. Multi-deck vehicles should not employ steep inter-deck ramps for unloading.
- 2.1.3 The slope of ramps should be no steeper than 1 in 3 (about 20 degrees). The surface should be made of a non-slip material. Cross-cleats, welded mesh, or a suitable cross-grooved or 'diamond' pattern in concrete ramps should provide animals with a good grip, especially when the ramp is wet. Welded mesh should be fixed so as not to damage the animals' feet. Concrete 'steps' with treads 500 mm deep and with 100 mm risers may be used for unloading cattle; and for pigs, treads 300 mm deep and with 90 mm risers.
- 2.1.4 Unloading ramps should be at least as wide as the exit door on the vehicle. The exit door should be as wide as possible. When unloading stock from rail and road trains, unloading 'banks' are useful. If such banks are long enough, several wagons can be unloaded simultaneously.
- 2.1.5 The recommended minimum height of the floor of unloading ramps from ground level and the recommended minimum internal width of ramps are detailed in Appendix I.
- 2.1.6 The inside walls of the ramp should be smooth and constructed so animals cannot see activities outside the ramps and will not be injured by rubbing. Rails inside vehicles and ramps should be smooth, with no sharp projections that may injure animals.
- 2.1.7 Provision of a walkway on the outside of the ramp, for use by an attendant to facilitate stock movement is essential for sheeted ramps and multi-deck ramps.

2.2 Unloading

- 2.2.1 As the supply of livestock to a slaughtering establishment of significant size is a complex exercise, planning the receival and unloading procedures well in advance should allow adequate time for stock to be unloaded quietly and with care. Planners should know delivery times of animals, allocation of pen or lairage areas and delegation of responsibilities to relevant staff. These staff must accept responsibility for subsequent events whether planned or unplanned.
- 2.2.2 Animals should be unloaded as soon as practicable after arrival. They should walk off quietly so that they are not injured.

For the receival and handling of stock, management should prepare and display clearly printed rules and designate those staff involved. A trained and competent

abattoir employee should be made responsible for ensuring such rules are observed. This employee must have immediate access to, and be trained and authorised to use, instruments for humane destruction (rifles or captive bolt pistols or both).

- 2.2.4 Unloading of stock should only be done by experienced personnel.
- 2.2.5 Trucks should be correctly aligned with the lip and walls of the ramp, so that no gaps exist. An adjustable bumper is useful to eliminate gaps. Vehicle doors need to be properly aligned with the ramp to ensure the smooth movement of stock and to minimise injury and bruising.
- 2.2.6 Lighting should be provided for unloading at night, early morning and at times of poor visibility. Such lighting should be carefully positioned to give even light over ramps, races, yards and pens. It should not cause deep shadows or bright spots.
- 2.2.7 Sufficient pens and laneways should be available when unloading livestock to avoid mixing different species, different sexes, or unfamiliar groups or individuals of the same species as this can lead to antagonism or fighting, with consequent injury and stress. This is particularly important with pigs.
- 2.2.8 Methods of assisting the unloading of animals include:
 - electric prods. These should be powered only by battery or dynamo and should be of an approved type. Their use should be restricted to the absolute minimum. The continual prodding of animals which have little or no room to move must not be permitted. They should be used only on cattle over 3 months of age, mature pigs and mature horses and in a manner approved by the authorized officer in charge.
 - 'flappers' (a length of cane with a short strap of leather or canvas attached) used sparingly, 'baffle boards' or 'metallic rattles' are useful in that they encourage movement of animals. The use of sticks, lengths of heavy plastic, metal piping or heavy leather belts shall not be permitted.
 - well-trained dogs are useful to assist unloading of sheep, and should be muzzled. The number of dogs used should be strictly limited to that necessary to complete the task. The use of dogs is not recommended for pigs, cattle or horses.
- 2.2.9 It is unacceptable for animals to be lifted by the horns, legs, ears, tail or wool during unloading.
- 2.2.10 The driver or person in charge of the stock should know the name and phone number of the owner/agent of the stock. This will allow decisions to be made or emergency action to be taken when delays or injuries to animals occur.

2.3 Unloading of Crippled or Downer Stock

- 2.3.1 To deal with the unlikely event that injuries or disease may have occurred during transport, stock should be closely observed at unloading. If animals have been injured, sound stock should be unloaded first, as quickly and quietly as possible, so that emergency slaughter of casualties can be carried out immediately. Severely injured stock should be slaughtered without delay. Other injured stock should also be slaughtered without delay unless, in the judgement of the qualified person, the injury is minor and is not causing pain or suffering or both.

Severely injured animals or those in severe pain should be humanely killed. The equipment, and properly trained and authorised staff, must be available to kill these animals immediately. It is unacceptable to hold injured animals that are showing obvious signs of stress or of pain from the time of arrival at night or on weekends until the slaughter floor is operating.

- 2.3.2 Stock requiring *emergency slaughter* shall be killed by shooting or by stunning and bleeding without moving them further than necessary to effect humane slaughter. This will often involve slaughter on the transport vehicle. Live animals should not be lifted by the horns, wool, ears, tail or legs. The place for humane slaughter should be safe for the operator and should be able to be cleaned afterwards. Carcasses that in the opinion of a qualified person may be fit for human consumption should then be loaded onto a truck or other vehicle and transported immediately to the slaughter floor. A qualified person nominated under the company quality assurance program must be present at slaughter to ensure that the animal is inspected ante-mortem, and accepted for further inspection on the slaughter floor.
- 2.3.3 Animals with minor injuries not causing pain or distress do not require immediate slaughter but should be slaughtered as soon as practical on the day of arrival (*casualty slaughter*).
- 2.3.4 Injured and sick animals that in the judgement of a qualified person could respond to rest and/or treatment should be placed in casualty pens. Water, shade and or feed and appropriate treatment should be provided and slaughter delayed until the animal has recovered. The veterinarian or inspector should be fully informed of all treatments given and drugs administered. The withholding period for the elimination of any drugs used in treatment must be observed.
- 2.3.5 The practice of winching, or dragging by other means, live injured animals from transport vehicles onto other vehicles for movement to the slaughter floor is forbidden. Tying the animals to a fixed object, e.g., a tree or ramp, and driving the transport vehicle away is also forbidden.

2.4 Holding Stock during Industrial Disputes

- 2.4.1 As soon as notice of an industrial dispute is given, abattoir management should limit further stock deliveries to those already in transit to the meatworks and to a number that can be given adequate water, feed, shelter and appropriate treatment.
- 2.4.2 Animals at the works should be provided with adequate food and water and, when necessary, shade for the duration of the dispute.
- 2.4.3 The requirements of holding facilities are detailed later in this Code.
- 2.4.4 Special consideration needs to be given to bobby calves, recently weaned calves and sucker lambs. Unless they can be fed properly at a meatworks, every effort should be made to slaughter them before the commencement of industrial disputes involving strike action.
- 2.4.5 Bobby calves are defined as weighing not less than 23 kg and with the junction of the umbilical cord and the skin dry and shrivelled.
- 2.4.6 Unions should be consulted and their agreement obtained to:

- slaughter all calves, pigs and sucker lambs on the premises or in transit to the meatworks before the commencement of a strike; or
- permit members of their union to remain at or return to work for the purposes of slaughtering such calves, pigs and lambs; or
- authorise the use of available competent labour (including non-union labour) for such slaughter.

2.4.7 If calves and lambs cannot be slaughtered or properly fed they shall be humanely destroyed and disposed of hygienically.

2.4.8 To guard against a tick fever outbreak, similar provisions should apply for cattle from cattle tick-free areas on the premises of abattoirs in tick-infected areas.

2.4.9 Once management is advised of an impending dispute, no further deliveries of calves or sucker lambs should be accepted, except those in transit to the meatworks, until the dispute is settled.

2.5 Stock Holding Facilities and Management

2.5.1 Holding Paddocks or Yards

2.5.1.1 Holding paddocks or yards should provide enough space for stock to move around, lie down, or take evasive action if bullied by other animals. Suitable facilities e.g. water misters and sprays, wind breaks, shade and other shelter, should be provided to protect animals from harmful effects of environmental stresses related to temperature and humidity, wind and radiation. Yards should be sufficiently well drained to prevent accumulation of surface water. Fences and gates should have smooth surfaces to prevent injury to stock. Sufficient yards should be provided where possible to avoid mixing individual truck loads of stock with other strange animals. Lairage or holding pens should be located away from the more 'active' areas of the establishment (i.e. not in areas where animals may be continually disturbed by receipt of stock or the passage of stock continually moving to the slaughter floor). Fences should be high enough to prevent animals intermixing. Livestock should be protected from predators.

2.5.1.2 Watering facilities should be provided in all paddocks or yards and located and constructed to minimise injury to stock. They should be kept clean, and automatic equipment should be checked daily to ensure that it is functioning. Water pressure should be adequate to keep the troughs full at all times.

2.5.1.3 Water troughs used by animals on arrival at the slaughtering establishment should be of sufficient size to permit all animals to drink within an hour of arrival. In earth yards concrete aprons should be provided at watering points. Where clinical or post-mortem evidence indicates dehydration of animals has occurred, then watering arrangements for stock must be modified to remove the problem.

2.5.1.4 Where animals are held, appropriate feed and feeding facilities should be provided to allow animals to maintain liveweight and withstand environmental stressors such as cold, wet weather.

2.5.2 Pre-slaughter Holding Pens

- 2.5.2.1 Long and narrow pens provide for smooth movement of stock. Impervious non-slip flooring should be used. Walls and gates are to have smooth sides and be free of any projections that could injure animals.
- 2.5.2.2 Shelter should be provided to protect animals from harmful effects of environmental stresses related to temperature and humidity, wind and radiation.
- 2.5.2.3 Pigs are more susceptible to heat stress and sunburn than other livestock. A pig that is panting may be showing signs of heat stress. They must not be exposed to long periods of direct sunlight or extremes of temperatures. Thus, pens should be roofed and very well ventilated in hot weather. Facilities for spraying pigs with water for cooling should be provided.
- 2.5.2.4 Livestock in holding pens should have ready access to cool, clean water at all times. The troughs should be firmly fixed and the sides high enough to prevent fouling with faeces. They should be kept clean at all times and should be inspected daily. However, it is recognized that access of stock to water may be restricted for up to 12 hours prior to slaughtering consistent with the need to prevent contamination of carcasses during the slaughtering process.
- 2.5.2.5 Holding pens, and feed and water facilities for all species, should be cleaned after each day of use. The provision of water sprays for cooling pigs, cattle and calves in holding pens is recommended and should be used to prevent hyperthermia.
- 2.5.2.6 Holding pens should provide not less than 0.6 m² per pig, sheep, goat or calf, and 1.9 m² per head for adult cattle; or a larger space as required by State or Territory legislation.

2.5.3 Separation of Animals during Holding

- 2.5.3.1 Animals of different species should not be mixed. Within species, if delivered in separate lots, the following categories should be kept separated:
- young calves;
 - females with suckling offspring;
 - hornless cattle;
 - animals of significantly different size;
 - females in advanced pregnancy;
 - mature entire males.
- 2.5.3.2 In addition mature entire males may need segregating if delivered in mixed lots.
- 2.5.3.3 Unfamiliar groups of animals especially pigs should not be mixed.

2.5.4 Holding Times

2.5.4.1 The final decision about the requirements of animals for space, rest, food and water, after arrival at a slaughtering establishment must be made by an appropriately qualified person. General guidelines are as follows:

- for carcass quality purposes a minimum rest period of 2 hours between arrival and slaughter is desirable (with the exception of bobby calves and sucker lambs).
- ruminants that are stressed, or have travelled for longer than 6 hours should be rested for longer periods before slaughter.
- animals that have travelled without food and water for more than 24 hours, or are suffering from stress exhaustion, may require a rest period of up to 96 hours.

2.5.4.2 For the two preceding categories of animals, palatable food should be provided if they have been without feed for more than 24 hours, or a shorter period if required by State legislation;

- pigs should be slaughtered as soon as possible after a 'settling down' rest period commencing after unloading at the abattoir. Water should always be available to pigs and they should be fed (a minimum of 1 kg/hd/day of a grain-based diet) if they are to be held for longer than 24 hours.
- bobby calves and sucker lambs should be slaughtered as soon as possible after arrival at the abattoir.
- all stock in paddocks, yards or pens should be inspected at least once every 24 hours by an experienced stock handler. Injured, sick or stressed animals should be attended to in accordance with the instructions of a veterinary surgeon or the authorised officer in charge.

2.5.5 Movement of Animals from Holding Pens to the Slaughter Floor

2.5.5.1 This should be as free of stress as possible. Visual and auditory stimuli should be minimised.

2.5.5.2 Races should be curved, and have sheeted (solid) walls, shall be free of projections and have non-slip floors. Animals move more readily through a race of this type. Races for single animals should not be wide enough to allow an animal to turn around (700 mm for adult cattle, 400 mm for calves, 500 mm for pigs). Provision should be made to gain access to animals that fall or lie down in races or the knocking box. Winching or dragging live animals into the knocking box is forbidden.

2.5.5.3 The use of electric prodders, goads, dogs, etc., should be minimal, as described in the general section on unloading.

2.5.5.4 For pigs, flappers can be used. 'Pig boards', 900 mm by 600 mm (with handles attached), held in front of the handler are very useful.

2.6 Slaughter Methods

2.6.1 Stunning Restraints

- 2.6.1.1 The use of 'V' shaped conveyors of suitable design for complete restraint should be encouraged for cattle, sheep, goats and pigs. The conveyors should be of dimensions appropriate to the animal being carried. These conveyors enable stunning to be carried out more efficiently and humanely.
- 2.6.1.2 Knocking boxes for cattle or horses should not be wide enough for an animal to turn around, and should be long enough to comfortably accommodate one animal. They should also be adjustable for use with smaller animals. Knocking boxes should allow ready and quick access to the head of an animal of any size for stunning and should be easy to dismantle to provide access to animals that fall, lie down or are incapacitated.
- 2.6.1.3 All stunning restraint facilities should be inspected regularly and maintained in good working order. Head capture systems to facilitate stunning should be encouraged.
- 2.6.1.4 Animals should not enter the knocking box unless they are to be stunned immediately.
- 'V' conveyors and the race landing to the knocking box should be emptied prior to any stoppages.
- Animals approaching slaughter should be prevented from viewing dead animals ahead of them for as long as possible. The sight of the actual slaughter process should be prevented, if at all possible.
- 2.6.1.5 'Rotating type' knocking boxes used in the past for religious slaughter are not recommended, as they may distress the animal before it is slaughtered.
- 2.6.1.6 Stunning for religious slaughter should be encouraged using either effective 'mushroom' percussion stunning or electrical stunning methods. Effective restraint and a competent operator are essential. A penetrating captive bolt pistol should be immediately available and used to stun animals whenever the effectiveness of the original stun is in doubt. It is unacceptable to shackle and hoist conscious animals. Animals shall be unconscious before shackling and, to prevent return of consciousness, animals shall be 'stuck' before shackling to enable bleeding out to occur during hoisting.
- 2.6.1.7 To stun animals effectively using a hand-held stunning device, the animal should be suitably restrained with minimal room to move. This makes stunning more efficient and less subject to the effects of unanticipated animal movement. Animals should not be stunned in pens where restraint is inadequate.
- 2.6.1.8 Knocking boxes that contain more than one animal for stunning should not be used. In addition to the probability that the first

animal stunned will suffer bruising from other animals, there is the risk that the first stunned animal may begin to recover consciousness before bleeding out causes death.

2.6.2 Stunning Techniques

- 2.6.2.1 An animal has been stunned effectively when it is unconscious and insensible to pain. It should not regain consciousness or sensibility before dying.
- 2.6.2.2 The effectiveness of stunning depends on the apparatus, its condition and the expertise of the user. Personnel who stun animals should always be trained and competent. Alternative or spare apparatus should always be immediately available. Where electrical stunning is used an alternative system of stunning e.g. captive bolt pistol must be available in case an animal breaks free.
- 2.6.2.3 For **cattle**, penetrating captive-bolt stunning is recommended. Electrical stunning is acceptable and head to body stunning is the preferred technique (400 volts, 1.5 amps, 2 seconds duration) to prevent recovery of consciousness during bleeding out. Non-penetrating percussion stunning is not considered humane or effective when more than 2 applications are required to stun an animal and it is usually unsuitable for mature bulls and *Bos indicus* cattle.
- 2.6.2.4 Captive-bolt stunning is preferred for **calves**. With electrical stunning, lethal head to body stunning is required, except that head only stunning of calves is acceptable if accompanied by a Thoracic stick.
- 2.6.2.5 For **horses**, stunning should be by a penetrating captive-bolt pistol, or by shooting (where facilities safely permit this). Captive bolt devices can be powered by compressed air or by cartridge. They must be powerful enough to cause unconsciousness in the largest animal. The positioning of captive-bolt pistols is shown in Appendix II.
- 2.6.2.6 **Sheep and goats** should be stunned using a penetrating captive-bolt or electrically stunned (sheep and goats, 400 volts, 1.0 amps for 2 seconds; lambs, 400 volts, 0.6 amps for 2 seconds). Head-only stunning is acceptable for sheep and goats but stun-to-stick intervals must be monitored and not allowed to exceed 15 seconds.
- 2.6.2.7 The positioning of electrodes for electrical stunning is critical for creating unconsciousness and insensibility in animals. Where head-to-back stunning is used, the head electrode must be placed on the cranium. Poor placement of the head electrode can result in the back electrode causing fibrillation of the heart without insensibility – the animal will be sensible to the perception of a potentially painful stimulus such as cardiac fibrillation.

For head-only stunning the electrodes are to be placed on the dorsal cranium just behind the ears and in front of the first cervical vertebrae. Incorrect placement, e.g. on cervical vertebrae 1, 2 or 3 can

result in little brain effect combined with paralysis of the body (i.e. the net effect is an animal able to perceive pain and external stimuli).

- 2.6.2.8 **Pigs** should be electrically stunned, and head-to-back stunning to induce cardiac arrest is strongly recommended (400 volts, 1.3 amps for 2 seconds). Lower voltages are not recommended but, if used, for example 100 volts for pigs, the equipment must be used exactly according to the manufacturer's recommendations to provide a current of sufficient amperage to produce an effective stun. Higher voltages may kill the animal. This is acceptable as it is humane and does not interfere with bleeding. 'Tong' type apparatus which clamps across the head or a two-pronged device which is applied to the head near the brain are effective devices.
- 2.6.2.9 Mechanical stunning is acceptable for pigs but shall only be practised in special situations, such as emergency slaughter of sick or injured animals or for the stunning of large sows or boars with a penetrating captive-bolt. Techniques for these procedures are described in Appendix II.
- 2.6.2.10 Stunning pigs by exposure to mixtures of air and carbon dioxide are also acceptable. The mixture recommended in Europe is currently 70% carbon dioxide by volume, and exposure is recommended for 60 seconds. These recommendations may need to be modified for Australian conditions as experience with local conditions increases.
- 2.6.2.11 Small-stock stunners, where one electrode is applied to the head and the other to the back or leg, have been developed and used in overseas countries. They cause permanent cessation of heart beat and are lethal. They do not interfere with bleeding. Their use in Australia should be encouraged.
- 2.6.2.12 Slaughter-houses with small throughputs may utilise a firearm or captive-bolt gun for stunning all animals. Hand-held electrical stunners are becoming less expensive and their use on sheep and pigs should be encouraged.

2.6.3 **Sticking**

- 2.6.3.1 There are important anatomical and physiological differences between sheep, calves and pigs. The relevant differences concern the blood supply to the brain. If an adult sheep has its throat cut, severing the carotid arteries and jugular veins, unconsciousness occurs in a minimum of 8 seconds (29 seconds if there is a unilateral cut).

After a similar bilateral cut, unconsciousness occurs in 13 to 25 seconds in pigs, and in 30 to 100 seconds in calves. Calves have additional arteries near the cervical vertebrae. These arteries supply blood to the brain and are not severed in the normal sticking process. Thus to be effective, stunning must render the animal unconscious for the above periods plus the time between stunning and sticking. This creates a strong argument for the use of irreversible stunning in some species as most reversible stuns do not last longer than 45 seconds.

- 2.6.3.2 All animals which are not irreversibly stunned should be stuck and bled out immediately after stunning to ensure animals do not regain consciousness. The procedure should be performed by a skilled slaughterman using well-maintained equipment. The major blood vessels on both sides of the neck or the larger vessels near the heart must be severed quickly (intrathoracic stick). If they are not completely severed, there is a chance that the animal may regain consciousness.
- 2.6.3.3 The practice of hoisting pigs and calves after electrical stunning and before sticking is not recommended as it may extend the time between these operations and allow return of consciousness. Animals should be stuck before hoisting.

2.7 Deer

- 2.7.1 Farmed deer cannot be considered completely domesticated, and are intrinsically nervous and excitable animals. Pre-slaughter handling and holding at meatworks should be either eliminated or minimised.
- 2.7.2 Deer should arrive at a slaughtering establishment in a darkened, covered compartment of a vehicle, either group-penned or in a crate of comfortable size. They may be stunned on the vehicle to eliminate further handling and then transferred immediately to the slaughter floor for bleeding. A partition should be provided on the vehicle so that animals being stunned can be separated from the rest of the animals.
- 2.7.3 An alternative method is to unload deer into facilities of suitable dimensions that have been enclosed with hessian or shade-cloth to eliminate most light but allow ventilation. If there is a delay between the time of arrival and slaughtering of the deer, then roofed, darkened and well ventilated pens should be available and used for as short a time as possible. All partitions between pens should be sheeted and high. A stunning box should be positioned between the pen and the slaughter floor. The stunning box may need to be narrowed by inserting a false side. Deer should be stunned in this box individually and bled on the slaughter floor.
- 2.7.4 Stunning should be by a penetrating captive-bolt pistol, or by shooting (*where facilities safely permit this*).
- 2.7.5 Bleeding should be carried out immediately after stunning.

2.8 Knackeries

- 2.8.1 Welfare aspects of stock on arrival and slaughter at a knackery do not differ from the recommendations for the relevant species in this Code.
- 2.8.2 Knackeries should have yards, holding pens, and stunning and slaughtering facilities which are adequate for the numbers and types of stock being slaughtered there.
- 2.8.3 Animals which, either on arrival or later on, show evidence of sickness, injury, emaciation, debility or distress should be slaughtered immediately as approved by inspection services.

- 2.8.4 When mares with foals at foot are brought to a knackery they should be slaughtered one immediately after the other to avoid unnecessary distress.

2.9 Slaughtering Plant Management

- 2.9.1 Machinery and equipment should operate efficiently and inspection and repair programs be in place to ensure this.
- 2.9.2 Staff with responsibility for the handling, stunning and slaughter of animals should have access to all relevant equipment and be responsible for ensuring it is effectively maintained. Instructions for the use of equipment, especially electrical stunners should be displayed near the controls. Auxiliary stunning devices should be available in the stunning area at all times in case of equipment failure.
- 2.9.2 When old abattoirs are being modified or new ones are being constructed, management should seek advice on animal welfare aspects inherent in the design e.g. the effects of lairage and laneway design on animal behaviour and ease of stock movement.
- 2.9.4 Staff employed in abattoirs to handle live animals, to stun, to perform bleeding-out (manual or automatic), or to shackle animals shall receive instruction or training in the animal welfare aspects of this work.
- 2.9.5 Company quality assurance programs for stunning and slaughter should be instituted to ensure that animal welfare is not compromised. Quality assurance programs should include standard operating procedures to ensure stunning is effective and animals remain insensible to pain or suffering until death has occurred.
- 2.9.7 Quality assurance programs should ensure humane handling of animals and specify corrective action to be taken where poor handling is detected. Poor handling could be detected by the incidence and distribution of bruising or other injuries, or exhibition of fearful or aversive behaviour by animals.

3 POULTRY

Poultry is defined as: all species of fowls, ducks, geese, guinea fowl, turkeys, pheasants, partridge, quail and pigeons.

3.1 Pre-Slaughter Holding Facilities and Management

3.1.1 Pre-slaughter Holding

- 3.1.1.1 Birds awaiting slaughter at abattoirs, whether in containers on trucks or off-loaded, must be protected from direct sunlight, radiant and reflected heat and adverse weather conditions such as rain or wind. Containers should be unloaded with care to avoid injury or stress to birds. Any birds that escape during unloading should be caught as soon as practically possible.
- 3.1.1.2 Corridors should be formed between stacked crates sufficiently wide to ensure there is adequate ventilation for birds.
- 3.1.1.3 Adequate facilities should be available to cool holding areas and one or more of the following methods may be used:
 - strategically placed fans;
 - fine water misting sprays;
 - water reticulated over the roof of covered areas;
 - blinds, tarpaulins or similar sheeting hung from the roof fascias.
- 3.1.1.4 Consignments of birds awaiting slaughter should be inspected at hourly intervals to ensure that their welfare is adequate and, if distressed, remedial action taken immediately.
- 3.1.1.5 After unloading, any damaged crates shall be rejected for further use until repaired. All crates should be washed to remove soiling, for example, feathers and droppings.

3.2 Holding Time

- 3.2.1 All due care shall be taken to ensure birds are not subject to health or welfare problems during or following holding prior to slaughter. The entire process from catching the first bird on the farm to slaughter of the last bird in that consignment at the abattoir should not exceed 24 hours.

3.3 Procedures during Industrial Disputes

- 3.3.1 If sufficient notice of an industrial dispute is given, management should limit those birds arriving at the processing plant to those already in transit from the farm.
- 3.3.2 When industrial disputes disrupt the operation of a poultry processing plant, so that the total time birds are crated is likely to expose birds to health or welfare risk, then:
 - unions should be consulted and their agreement obtained to process all birds on the premises or in transit to the premises;

- consultations should be held for arrangements to process all birds on the premises or in transit to the premises at other processing plants in the area;
- birds on the premises or in transit to the premises should be released into a shed or sheds with access to feed and water, but only after all parties involved have attempted to realise one of the two preceding ways of having the birds slaughtered.

3.4 Catching and Shackling

3.4.1 Injured birds unloaded from crates should be slaughtered immediately.

3.4.2 Facilities and operations should enable birds to be caught and shackled or placed in a bleeding cone humanely. Where bleeding cones or a shackle line are used to restrain birds they should be used in a manner that prevents injuries or bruising and minimize stress to birds.

3.4.3 The catchment and shackling of birds in a darkened, purpose built zone should be considered.

The introduction of gas stunning in the meat chicken slaughter process will remove the need for handling and transferring conscious birds from crates to the shackling line.

3.4.4 The length of the shackle line from the unloading point to the bleeding trough should be generally accessible to staff so that birds can, if necessary, receive attention.

3.4.5 The shackle must be able to accommodate the shanks of birds of different size and weight without causing undue trauma to the birds.

3.4.6 Before stunning, birds should be suspended head downwards from shackle lines for a short time (preferably for a minimum of 30 seconds and no longer than three minutes for domestic fowl).

3.4.7 Shackle lines should keep birds clear of obstructions.

3.4.8 The shackling area should be designed in such a way that birds that have escaped can be collected without being injured or stressed.

3.5 Stunning

3.5.1 Unless birds are killed by decapitation or transection of the spinal cord by cervical dislocation, stunning is required. Stunning should produce immediate insensibility of the bird to pain and suffering. In using the method of stunning which involves immersion of the head and neck in electrified water baths, care should be taken to ensure the wings do not touch the water first. Electrical stunning knives are an acceptable method of stunning birds and are recommended for processing smaller consignments of poultry.

3.5.2 Approved stunning procedures must be in place to ensure that a satisfactory level and duration of anaesthesia is achieved consistently.

Gas stunning and killing of poultry is being introduced overseas. Since this can be done before the birds are handled at the abattoir there is potential to reduce stress levels in birds.

It is important to achieve the optimum mix of gases for each species. Overseas progress should be monitored and findings adopted where appropriate.

- 3.5.3 Where electrical stunning is carried out the current must be sufficient to cause the bird to be rendered unconscious immediately and to remain unconscious until it has been killed by bleeding.
- 3.5.4 Any deficiencies in the level of anaesthesia must be addressed without delay.
- 3.5.5 In standard commercial practice where broiler chickens or culled hens are stunned in groups in a water bath a voltage sufficient to produce consistent and effective level of stunning for each bird must be maintained. The duration of contact with the current must be sufficient to render each bird unconscious.
- 3.5.6 Until more reliable criteria are available the effectiveness of stunning should be judged on the basis of the bird undergoing a characteristic electroplectic fit, characterised by:
- arched neck and head directed vertically;
 - opened eyes;
 - rigidly extended legs and body with constant, rapid muscle tremors;
 - wings close to body – short bursts of or restricted wing flapping;
 - and lasting a few seconds before flaccid unconsciousness supervenes.
- 3.5.7 Effective stunning must ensure:
- effective voltage and earthing;
 - proper adjustment of the water height in the water bath according to the size of the bird;
 - proper construction of the entry ramp;
 - correct immersion of the birds in the water ramp;
 - proper adjustment of the voltage to the age and size of the bird.
- 3.5.8 Ineffective stunning may occur for the following reasons:
- setting the voltage of the stunner too low;
 - failure to adjust the height of the water bath to the size of bird being stunned;
 - movement of the birds when entering the stunner so that they escape contact with the water bath or do not make proper contact with it. (Such movement can be stimulated by a premature shock if the entry ramp has become wet). A ramp appears to reduce the amount of disturbance shown by the birds when entering the water bath by gradually raising their heads to the level of its edge. A dark tunnel between the shackling and stunning areas may help in calming the birds and reduce head lifting before reaching the water bath;
 - incorrect immersion of the birds in the water bath affecting the path of the electric current through them;
 - variations in the electrical resistance of birds and of different parts of birds, older birds require a higher voltage as the resistance of the scales on the shanks is greater than that of young birds;
 - failure of the stunner to operate at full efficiency or inefficient earthing of the shackle line;
 - variations in the current;
 - variation in the susceptibility of birds to electric shock;

- variation in size of birds in a consignment with smaller birds being insufficiently immersed in the water bath.

- 3.5.9 Birds that are not effectively stunned should not be relocated on the shackle. They should be killed immediately by a manual slaughtering method such as decapitation, cervical dislocation or cutting both carotid arteries.
- 3.5.10 Staff should be trained in the emergency procedures that they should follow when faults develop in stunning equipment.
- 3.5.11 In abattoirs handling a range of poultry the appropriate voltage for each type of bird should be used. This information should be displayed near the stunning equipment.
- 3.5.12 Management should ensure that adequate immersion of every bird in the water bath occurs.
- 3.5.13 Stunning equipment should be monitored regularly to ensure that it is delivering adequate current and voltage and that birds are either stunned effectively or killed.
- 3.5.14 Stunning is not considered necessary if poultry are killed by decapitation. Effective stunning for religious slaughter should be encouraged.

3.6 Bleeding-Out

- 3.6.1 Bleeding-out should commence not more than 15 seconds after stunning.
- 3.6.2 Each abattoir which uses automatic bleeding-out machines must provide, as a back-up measure, an operator trained to manually slaughter poultry.
- 3.6.3 Live birds should never reach the scald.
- 3.6.4 Bleeding-out times prior to immersion for scalding or prior to plucking should not be less than 90 seconds for domestic fowl and 2 minutes for turkeys.

3.7 Slaughtering Plant Management

- 3.7.1 Machinery and equipment used for handling live birds should be inspected and serviced regularly, to ensure minimum risk to bird health and welfare.
- 3.7.2 Staff with responsibility for handling, stunning and slaughter of live birds should have access to all relevant equipment and responsibility to ensure it is effectively maintained.
- 3.7.3 When old abattoirs are being modified or new ones are being constructed, management should seek advice on animal welfare aspects inherent in the design.
- 3.7.4 Staff employed in abattoirs to handle, shackle, stun or to perform bleeding-out (manual or automatic) of birds should receive instruction or training in the animal welfare aspects of this work.
- 3.7.5 The management should develop contingency plans to ensure birds are neither waiting in crates nor shackled for unduly long periods due to mechanical breakdowns.
- 3.7.6 Company quality assurance programs should include standard operating procedures for stunning and slaughter to ensure that animal welfare is not compro-

mised. The programs should ensure stunning is effective and animals remain insensible to pain or suffering until death has occurred.

- 3.7.7 This could be achieved by refraining from bleeding some animals after stunning and then recording the duration of the tonic and clonic convulsions and the time taken for the animal to exhibit head-raising. These observations could be linked to the duration of the stun-to-stick interval observed in the plant and the observed time to death after stunning and exsanguination. Loss of the pupillary reflex could be used as an indicator of death until a better measure is available. Through this process the possibility of animals regaining consciousness after stunning during the slaughter process should be eliminated. If animals used in quality assurance procedures regain consciousness they should be killed immediately by decapitation, transection of the spinal cord by cervical dislocation, manual cutting of carotid arteries or be returned to the line and slaughtered immediately.
- 3.7.8 Quality assurance programs should ensure humane handling of animals and specify corrective action to be taken where poor handling is detected.

FURTHER READING

The following publications are recommended as further sources of information for the management of livestock and slaughtering establishments.

- 1 Model codes of practice for the welfare of animals. Prepared for and endorsed by the Agriculture and Resource Management Council of Australia and New Zealand.
- 2 'Operational guidelines for the welfare of animals at abattoirs and slaughter-houses.' Department of Primary Industries and Energy. Adopted by the Meat Industry Advisory Committee June 1987.
- 3 'Slaughter of stock.' D K Blackmore and M W Delany. Publication No. 118 Foundation for Continuing Education of the New Zealand Veterinary Association, 1988.
- 4 'Livestock handling from farm to slaughter.' Temple Grandin. Australian Government Publishing Service.
- 5 'Survey of abattoir animal survey.' Department of Primary Industries and Energy. First survey 1985, Second survey 1986/87.
- 6 'Australian code of practice for construction and equipment of abattoirs.' Australian Quarantine and Inspection Service. Department of Primary Industries and Energy.
- 7 CSIRO Training videos for the Australian meat industry.
'Good handling makes sense' (Cattle)
'Sheep handling – easy as leading lambs'
'Pig handling – all it takes is a little understanding'

APPENDIX I

Specification of Unloading Ramps

- 1 Recommended minimum height of the floor of unloading ramps from ground level.
 - Fixed single deck and lower deck of two-deck ramps.
All species – 1 170 mm.
 - Upper deck of two-deck ramps.
Cattle – 2 845 mm
Sheep, goats, pigs – 2 100 mm
- 2 Recommended minimum internal widths of ramps.
 - Cattle – 760 mm
 - Sheep and goats – 500 mm
 - Pigs – 900 mm (allows 2 pigs side by side).

APPENDIX II

Emergency Destruction of Livestock

Previous sections of this code have outlined the humane killing of animals at slaughtering establishments. There may be a need to kill animals on the farm, in transit to slaughtering establishments and at slaughtering establishments prior to them reaching the slaughter floor.

Whilst this task is aesthetically unpleasant to most people, the method of killing shall be effective and cause sudden and painless death for the animal. It is equally important that the animal be handled quietly beforehand to ensure it is not unnecessarily distressed or alarmed.

Emergency slaughter of poultry shall be by transection of the cervical spinal cord by cervical dislocation or decapitation.

1 Use of the Firearm

- 1.1 The most effective and widely available method of humanely destroying farm livestock is a gunshot to the brain from a close range. There may, however be restrictions on the use of firearms in slaughtering establishments. Under those circumstances assistance should be sought from veterinary practitioners, the RSPCA, Police or State Departmental Authority.
- 1.2 The following aspects of firearms safety should be borne in mind:
 - a .22 calibre rifle or a .32 calibre humane killer pistol is adequate for humane destruction of most animals;
 - any use of firearms is potentially hazardous, particularly in concrete yards where ricochets are an added risk;
 - persons other than the marksman and a handler for the animal, should be cleared from the area or should stand well behind the marksman;
 - never fire while the animal is moving its head; wait patiently for a quiet interval before firing;
 - to provide maximum impact and the least possibility of misdirection the range should be as short as circumstances permit;
 - whilst the humane killer pistol and captive-bolt pistol are designed to be pressed firmly on the head prior to being discharged, it is not safe to do this with a standard rifle or pistol.

2 Use of the Captive-Bolt Pistol

- 2.1 An alternative to the firearm is to use a captive-bolt pistol, which is safer since a blank cartridge is used. The operator does not have to be a marksman as the instrument's muzzle is firmly pressed against the skull before firing. It must, however, be assumed that the animal has only been stunned and a follow-up method of ensuring death, such as bleeding out is required. Such a stunned animal should not be left unattended until it is dead. Care should be taken when approaching unrestrained livestock, including those in recumbency.
- 2.2 Blank cartridges for the captive-bolt pistol are colour-coded according to the amount of charge they contain. For best results, the manufacturer's recommendations should be followed on the most appropriate blank cartridges for different farm animals. Regular maintenance of the captive-bolt pistol is essential for efficient stunning.

3 Special Requirements of Stock

3.1 Horses

- 3.1.1 A head collar or bridle may be put on the animal to enable it to be restrained by an assistant, who must stand out of the line of fire. Restless animals should be blindfolded.
- 3.1.2 Frontal method: the captive-bolt pistol or firearm should be directed at the point of intersection of diagonal lines taken from the base of each ear to the opposite eye. The bullet should be directed as shown by arrow (b) to ensure the brain is damaged (see Figure 1).

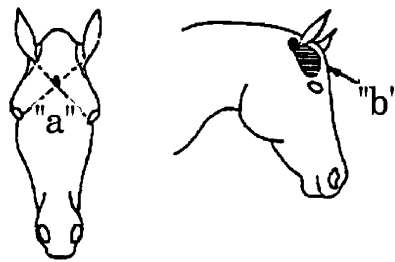


Figure 1 Humane destruction of horses. 'a' indicates the recommended position for frontal method. 'b' indicates direction (shown by arrow) in which bullet should be fired at the target area.

- 3.1.3 Temporal method: only suitable for firearms; the horse is shot from the side so that the bullet enters the skull midway between the eye and the base of the ear on the same side of the head. The bullet should be directed horizontally
- 3.1.4 Only a suitably-designed captive-bolt pistol should be used to destroy horses. The manufacturer's instructions must be followed for best results. Major blood vessels of the neck should be severed as soon as possible, taking care to avoid injury to the operator caused by the animal's involuntary movements.

3.2 Cattle

- 3.2.1 Frontal method: the captive-bolt pistol or firearm should be directed at the point of intersection of lines taken from the lateral nuchal crest to the opposite eye (see Figure 2).

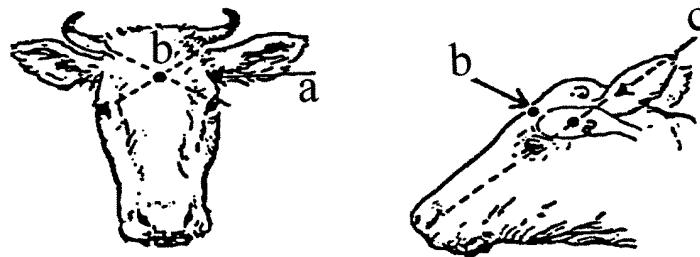


Figure 2 Humane destruction of cattle. 'a' indicates recommended position for temporal method (suitable for firearms only). 'b' indicates recommended position for frontal method (suitable for firearm or captive-bolt pistol). 'c' indicates recommended position for poll method (firearms only).

3.2.2 Temporal method: only suitable for firearms. The animal is shot from the side so that the bullet enters the skull midway between the eye and the base of the ear on the same side of the head. The bullet should be directed horizontally.

3.2.3 When the animal has been stunned using a captive-bolt pistol, it should be bled out as soon as it collapses to the ground, by severing the major vessels of the neck. To avoid injury due to the animal's involuntary leg movements, the operator should stand behind the neck.

3.3 Sheep

3.3.1 Hornless sheep and rams

3.3.1.1 Using a firearm or captive-bolt pistol: the instrument may be placed in any of the three positions illustrated in Figure 3: the poll, top of the head, and frontal positions.

3.3.1.2 Poll position – the instrument is placed behind the poll and aimed in the direction of the animal's muzzle.

3.3.1.3 Top of the head position – the instrument is placed at the top of the head and aimed along the midline in the plane of the angle of the jawbone.

3.3.1.4 Frontal position – the instrument is aimed at a point in the middle of the face just above the level of the eyes and aiming towards the spine.



Figure 3 Recommended position and direction of fire for captive-bolt pistol or firearm – Hornless sheep and rams.

3.3.2 Horned sheep and rams

3.3.2.1 Using a captive-bolt may not be suitable, in which case the frontal or poll position may be used (with a firearm). See Figure 4.

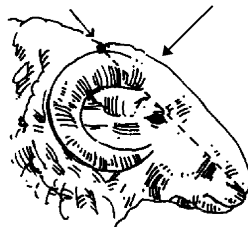


Figure 4 Recommended position and direction of fire for captive-bolt pistol or firearm – Horned sheep and rams.

- 3.3.2.2 After the animal has been stunned with a captive-bolt pistol it should be bled out immediately by severing the major blood vessels of the neck.

3.4 Pigs

- 3.4.1 Frontal method: the captive-bolt pistol or firearm should be directed at a point about midway across the forehead and (for adult pigs) about 2 cm above the level of the eyes (Figure 5). When using a firearm, aim horizontally into the skull. See arrow (b) Figure 5.
- 3.4.2 Temporal method: suitable only for firearms. The pig is shot from the side of the head so that the bullet enters the skull at a point midway between the eye and the base of the ear on the same side of the head. The bullet should be directed horizontally into the skull. This method is preferred for adult pigs due to the heavier bone structure of the front of the skull.

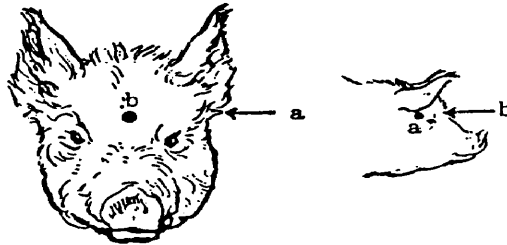


Figure 5 Humane destruction of pigs. 'a' indicates recommended position for temporal method (suitable for firearm only) 'b' indicates recommended position for frontal method (suitable for firearm or captive-bolt pistol).

3.5 Goats

- 3.5.1 Using either a captive-bolt pistol or firearm, direct the instrument to the skull behind the horns as shown by the point of the arrow in Figure 6. Aim the firearm in line with animal's mouth, and take care that no-one is in the line of fire.
- 3.5.2 Kids may also be shot from the front as for cattle (see 3.2.1) however this method is not suitable for mature goats as the brain is located well back in the skull compared to other livestock.

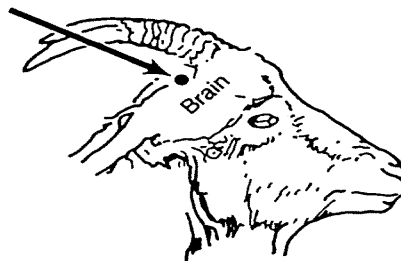


Figure 6 Recommended position and direction of fire for captive-bolt pistol or firearm – Goats.

3.6 Deer

- 3.6.1 A firearm or captive-bolt pistol should be directed at the forehead where lines taken from the base of each ear to the opposite eye intersect. A firearm should be fired horizontally into the forehead.
- 3.6.2 If the deer are disturbed when approached from the front, an equally effective method is to fire the instrument through the skull just behind the base of the antlers. A firearm should be aimed in line with the animal's muzzle.



Figure 7 Recommended positions and direction of fire for captive-bolt pistol or firearm – Deer.

4 Emergency Slaughter by Bleeding Out Sheep and Goats without Pre-Stunning

- 4.1 Bleeding out of sheep and goats without pre-stunning is a humane alternative method of emergency slaughter, provided it is done by a skilled person using a suitable, sharp knife.
- 4.2 The animal should be laid on its side and the head drawn back. The neck is cut quickly and transversely completely through to the spine just behind the jaw bone. The major blood vessels on both sides of the neck must be severed.
- 4.3 This method is not suitable for calves because an additional blood supply to the brain enables the animal to remain conscious for a considerable time after the throat is cut.

APPENDIX III

Working Animals at Abattoirs

1 Working Animals that may be Present

- 1.1 For the purposes of maintaining security or assisting livestock handlers in moving livestock, the following working animals may be present:
- Judas or leader animals
 - horses
 - dogs

2 Number of Working Animals

- 2.1 The number of work animals at an abattoir or slaughter house should be kept to a minimum.

3 The Use of Dogs

- 3.1 Dogs should be controlled and should not cause slaughter animals to be unduly disturbed or excited.
- 3.2 Dogs should not be used to assist in the receipt or handling of horses, deer, pigs and young calves.
- 3.3 Where dogs are used to facilitate the movement of slaughter animals, the dogs should be:
- effectively muzzled;
 - of sound health and be treated routinely to provide freedom from tapeworm infestation.

4 Housing and Restraint of Working Animals

- 4.1 With the exception of Judas or leader animals, working animals should be accommodated separately from slaughter animals.
- 4.2 Where dogs are not engaged in the handling of slaughter animals or in security activities, they should be
- securely restrained; or
 - placed in kennels in a location sufficiently distant from slaughter animals to avoid disturbance or excitement of those slaughter animals.

5 Provision of Feed and Water for Working Animals

- 5.1 Work animals should:
- be fed in accordance with the requirements of those animals;
 - have access to drinking water when they are not being worked;
 - not be worked for excessive periods without having access to drinking water.

6 Health of Working Animals

- 6.1 Working animals should be maintained free of internal and external parasites, and infectious diseases. This is of particular concern where these could be transmitted to human workers at the site or to slaughter animals. Working animals should receive regular attention from a veterinary surgeon to ensure this state is maintained.

APPENDIX IV

National Guidelines for Slaughtering Establishments in Australia

Animal Care Statement

This document provides details of the manner in which a commercial abattoir indicates compliance with the Commonwealth and/or State/Territory provisions for the Welfare of Animals at Slaughtering Establishments.

1 Purposes

- 1.1 For owners/managers/operators of commercial abattoirs to formally state their responsibility in animal welfare and to highlight some of the key factors relative to abattoir/slaughter-house operation; and
- 1.2 To provide documentary evidence to the appropriate State or Territory government animal welfare agency that management is, in fact, addressing this area; and
- 1.3 To provide a document, against which the abattoir's/ slaughter-house's compliance with the provisions can be audited.
- 1.4 To describe the process or procedure to be implemented on an individual abattoir to deal with a particular routine practice or emergency situation in order to ensure that the maximum potential welfare of animals is achieved and the efficiency of the abattoir/slaughter-house operation is ensured.
- 1.5 Government agencies are nominated in objective 1.2 because of the commercial-in-confidence nature of the information that will be included in the Animal Care Statement (ACS).

2 Clarification

- 2.1 Where the ACS proforma requires a position to be nominated, this refers to the position responsible for an operation, or for implementation of necessary action.
- 2.2 Positions can be identified by the number given on the management chart (see section 3.2).

3 Animal Care Statement for Slaughtering Establishments

3.1 Slaughtering Establishment Details

Name of Slaughtering Establishment: _____

Contact Person/Position: _____

Site Address: _____

Postal Address:
(if different from above) _____

Phone: _____

Fax: _____

3.2 Management

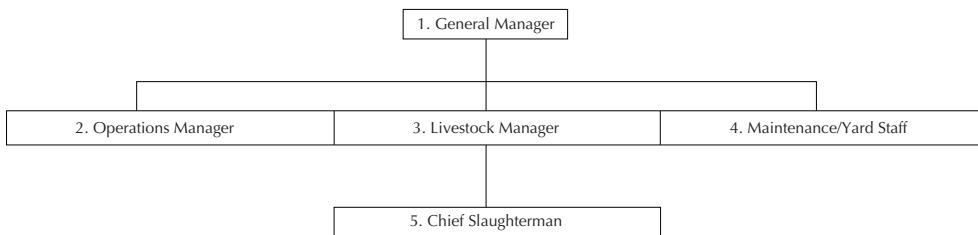
3.2.1 Management Statement

This should include details of size, nature of operation, species of stock for slaughter.

3.2.2 Staff Training

This should relate to animal welfare issues and handling.

3.2.3 Management Structure



NB This example is for a major operation. Many slaughtering facilities may be much smaller.

3.3 Responsibilities and Procedures

Facilities

3.3.1 Pens

Maintenance – Person/Position: _____

Cleaning/Condition of surface/drainage etc: _____

Position

Frequency details _____

3.3.2 Fences and Gates:

Maintenance – Person/Position _____

Frequency details: _____

3.3.3 Ramps for unloading of stock:

Maintenance – Person/Position: _____

Frequency details: _____

3.3.4 Describe the features of facilities in place to take into account specific animal species behaviour and welfare needs (especially design of yards, races and ramps).

Based on your observations of animal behaviour and movement at the works, what improvements are required, if any, to the yards, races and ramps?

3.3.5 Special facilities and procedures in place to handle injured/disabled/diseased stock.

1) Stock on arrival

2) Stock in yards

If 'yes' give details; if not available, what alternative procedure is used?

3.3.6 Water troughs:

Maintenance – Person/Position: _____

Cleaning – Person/Position: _____

Frequency details: _____

3.3.7 Detail the routine for holding, watering and feeding stock prior to slaughter.

Position: _____

Detail procedures for feeding and holding stock prior to slaughter:

3.3.8 Shelter Provisions:

Is it provided? _____ Yes _____ No

Are fans or misters provided? _____ Yes _____ No

If yes, advise details (natural, artificial, type – eg, windbreak, shade etc and area involved). If no, why do you consider it is not required?

3.4 Livestock Management

3.4.1 Veterinary Service available, on site: _____ Yes _____ No

If no, what is the alternative arrangement (i.e. contract, on-call, or other)? Give details, including name of veterinary practice on call.

3.4.2 Surveillance of live animals during the holding period (including weekends and public holidays)

Maintenance – Person/Position: _____

How often are the animals checked? _____

3.4.3 What procedure is used to ensure that arrangements are in place for the safe out-of-hours reception and unloading of consignments and dealing effectively with emergencies?

Maintenance – Person/Position: _____

What procedure is used to ensure that there is a worker on site when animals arrive after hours?

3.5 Emergency Procedures

3.5.1 Emergency Slaughter

Person/Position: _____

Details of contingency plans:

3.5.2 Extreme Weather

Person/Position: _____

Details of contingency plans:

3.5.3 Industrial Disputes

Person/Position: _____

Details of contingency plans:

3.5.4 Electrical Breakdown

Person/Position: _____

Details of contingency plans:

3.5.5 Fire

Person/Position: _____

Details of contingency plans:

3.5.6 Handling of Escaped Animals

Person/Position: _____

Details of contingency plans:

3.6 Stunning Operation

3.6.1 Equipment, including fire arms, if used

Person/Position: _____

Maintenance Position: _____

Frequency of checking and cleaning:

3.6.2 Chief Operators/Stunner

Qualification/Authorisation:

Training:

3.6.3 Chief Slaughter Operator

Qualification/Authorisation:

Training:

3.6.4 Type of stunning used

If electrical stunning is used, is head-only stunning practised or head-to-back stunning?

Detail voltage, amperage and duration of application used to ensure effective stunning.

Is batch stunning of animals practised?

What is the average time interval between stunning and sticking of animals?

Are animals hoisted prior to sticking? If yes, what procedures are in place to ensure no recovery prior to sticking and permanent loss of consciousness?

If captive-bolt or percussion stunning is used, outline the procedures to ensure effectiveness of stun and procedures to re-stun if necessary?

If CO₂ stunning is used, outline the procedures to ensure effectiveness of process.

3.6.5 Failure of stunning equipment

Person/Position:

Details of contingency plans:

3.6.6 Procedure to provide back-up to neck-cutting machinery in poultry slaughtering premises.

Details of procedure in place:

3.6.7 Is your establishment licensed to perform halal or kosher slaughter?

If 'yes' outline the steps of ritual slaughter:
