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REPORT OF THE FIRST MEETING OF THE OIE AD HOC GROUP ON THE SLAUGHTER OF ANIMALS FOR HUMAN CONSUMPTION

Paris 3-5 November 2003

The OIE *ad hoc* Group on the slaughter of animals for human consumption held its first meeting at the OIE Headquarters from 3-5 November 2003.

The members of the OIE *ad hoc* Group are listed in Appendix I. The Agenda adopted is given in Appendix II. Dr Arnon Shimshony was appointed Chair of the *ad hoc* Group.

Dr Bernard Vallat, the Director General of the OIE, welcomed the members of the *ad hoc* Group and thanked them for their willingness to be involved in the OIE's work on this very important topic. He recalled the history of the OIE's involvement in animal welfare, based on the linkages between animal health and animal welfare, and in particular the resolution of the 2002 General Session which established priorities for the OIE's work (animal transport, killing for disease control purposes and humane slaughter for human consumption). In slaughter for human consumption, he considered that ethnic, cultural and religious factors would need to be addressed to enable the standards to be universally applicable.

Dr Andrea Gavinelli (member of the Working Group on Animal Welfare) presented the outcomes of the first meeting of the Working Group. He explained the approach of the Working Group which was to rely on outside expertise in the form of *ad hoc* Groups to draft specific guiding principles and standards for the prioritised topics, and he emphasised that *ad hoc* Groups needed to concentrate on desired goals rather than detailed procedures. He encouraged the *ad hoc* Group to focus on the commercial, larger scale aspects of slaughter.

The *ad hoc* Group saw its role as that of evaluating procedures and preparing guidelines designed to minimise avoidable pain and suffering at every stage during the pre-slaughter and slaughter processes, until the death of the animal. To ensure that its work harmonised with the work of the *ad hoc* Groups on land and sea transport, the *ad hoc* Group decided that the scope of its work would be taken to commence at the end of the journey to the slaughterhouse. The terms of reference are at Appendix III.

The *ad hoc* Group approached its work by assessing the animal welfare concerns associated with every procedure during the pre-slaughter and slaughter processes, reviewing them on the basis of the available scientific data, independent of any religious or cultural context. Once those animal welfare concerns were qualified, the *ad hoc* Group considered the specific issues associated with slaughter without stunning, such as the necessary restraint, the pain likely to be associated with the cut (for which it noted that there were no definitive data) and distress prior to unconsciousness (using available data to estimate the length of this period).

Appendix XXX (contd)

The *ad hoc* Group acknowledged the significance of religious requirements, and ritual, cultural and ethnic factors associated with some forms of slaughter. The *ad hoc* Group felt it important that these should not be treated as exempt from these guidelines, which are intended to provide a framework within which variations to certain steps in the process may be practised to improve animal welfare or without compromising it.

The *ad hoc* Group believed that methods of lairaging, and the moving and restraining of animals prior to and during religious slaughter are separate issues from religious slaughter requirements; with regard to restraint, there is a wide variation in methods, ranging from those with acceptable animal welfare to some which are totally unacceptable under any slaughter method. The *ad hoc* Group also contended that some distressful and painful methods applied to conscious animals such as shackling and hoisting by the hind leg(s) or dragging by the leg(s) are not part of any religious requirements, are unacceptable in all circumstances, and should be phased out.

The *ad hoc* Group encouraged Member Countries to approach the guidelines with a commitment to continuous incremental improvement to the process of managing animals prior to and during slaughter. It recognised that the sensitivity of addressing possible changes which are designed to improve animal welfare during stunning and slaughter would necessitate those changes being discussed with and within the relevant communities, with a view to achieving their voluntary adoption. The *ad hoc* Group was aware of advances in animal welfare which have already been achieved in relation to such practices and encourages further improvements, in particular related to pre-slaughter restraining methods.

The *ad hoc* Group also believed that Member Countries should address the management of foetuses during the slaughter of pregnant animals, and has drafted an article on that issue.

The *ad hoc* Group reviewed the General Guidelines for the welfare of animals proposed by other *ad hoc* Groups, and recommended no changes to Articles 1 and 2, and some to Article 3. The *ad hoc* Group then began the process of drafting guidelines for the slaughter of animals for human consumption. The draft guidelines prepared so far are at Appendix IV and remain to be completed. During that process, more explanatory detail will be provided of the various slaughter methods, with special reference to their respective animal welfare aspects.

**MEETING OF THE OIE AD HOC GROUP ON
THE SLAUGHTER OF ANIMALS FOR HUMAN CONSUMPTION**

Paris, 3-5 November 2003

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**MEETING OF THE OIE AD HOC GROUP ON
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Approved Agenda

- 1) Introduction
 - Discussion in OIE Working Group on Animal Welfare
 - Other relevant discussions
- 2) Update on recent significant issues regarding the humane slaughter of animals
- 3) Development of specific guiding principles and standards
- 4) Work programme

**MEETING OF THE OIE AD HOC GROUP ON
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TERMS OF REFERENCE

- First output – draft guiding principles specifically addressing humane slaughter, (based on the generic OIE guiding principles and policies for animal welfare)
 - Final output – draft standards / guidelines for OIE Code based on these guiding principles
 - Identify future directions in which *Ad hoc* Group might need to move
 - Produce drafts for review by Working Group and then by Code Commission
 - Focus on commercial scale slaughter
 - Take account of religious and cultural dimensions through a sub-group examining these dimensions for cattle, sheep, goats and poultry and reporting to main *Ad hoc* Group
 - Cover as a priority the following species: cattle, sheep, goats, pigs and poultry.
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INTRODUCTION TO OIE GUIDELINES FOR THE WELFARE OF ANIMALS

Article 1

Guiding principles for animal welfare

- That there is a critical relationship between animal health and animal welfare.
- That the internationally recognised ‘five freedoms’ (freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour) provide valuable guidance in animal welfare.
- That the internationally recognised ‘three Rs’ (reduction in numbers of animals, refinement of experimental methods and replacement of animals with non-animal techniques) provide valuable guidance for the use of animals in science.
- That the scientific assessment of animal welfare involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible.
- That the use of animals in agriculture and science, and for companionship, recreation and entertainment, makes a major contribution to the wellbeing of people.
- That the use of animals carries with it a duty to ensure the welfare of such animals to the greatest extent practicable.
- That improvements in farm animal welfare can often improve productivity and food safety, and hence lead to economic benefits.
- That equivalent outcomes (performance criteria), rather than identical systems (design criteria), be the basis for comparison of animal welfare standards and guidelines.

Article 2

Scientific basis for guidelines

- Welfare is a broad term which describes how well individuals are coping with their environment, and includes their health, their feelings and other good and bad effects on brain and body mechanisms for dealing with problems.
- Welfare can be scientifically evaluated and can be shown to range from very good to very poor. The study of how to assess animal welfare has progressed rapidly in recent years and evidence from such studies has been used in the formulation of these guidelines.
- Some studies of animal welfare involve assessing the extent of stress, which occurs when individuals are not able to cope with the consequences of treatment by humans or other impacts on the animal’s environment. Other indicators of poor welfare reveal how much the individual is having to do in order to cope with problems.

Appendix XXX (contd)

Appendix IV (contd)

- Other areas of animal welfare research provide further information about the needs of animals by measuring the strengths of their positive and negative preferences. Once the needs of animals are known, conditions and treatment methods which fulfil these needs can be devised and used.
- Some measures of poor welfare involve assessing the extent of pain or impaired functioning associated with injury or disease. Many of the problems can be revealed by an inspection of the animal.
- Many measurements of animal welfare can be used as performance indicators in the evaluation of general methods for the keeping and treatment of animals and the actions of individuals who have an impact on those animals. Using such evidence, the acceptability of systems and of human performance can be decided.

Article 3

Ethical basis for guidelines

- Those who use animals have obligations concerning the welfare of those animals. Actions should be taken to minimise pain, anxiety and stress experienced by animals throughout their life, and to maximise welfare through the use of adequate housing and ethically accepted methods of treatment, inspection, training and management.

Article 4

Definitions

For the purposes of this Code, the following definitions apply:

Slaughterhouse: means premises, including facilities for moving or lairaging animals, used for the slaughter of *animals* for human consumption or animal feeding, and approved by the *Veterinary Services* or other competent authority.

lairaging: the keeping of animals in stalls, pens, covered areas or fields in order to give them necessary attention (including water, fodder, rest) before they are moved on or used for specific purposes including slaughter;

restraint: the application to an animal of any procedure designed to restrict its movements in order to facilitate effective stunning or killing;

stunning: any mechanical, electrical, chemical or other procedure which causes immediate loss of consciousness which lasts through to death;

~~***gas stunning:*** any gaseous procedure which causes a rapid loss of consciousness which lasts through to death;~~

killing: any procedure which causes the death of an animal;

slaughter - any procedure which causes the death of an animal by bleeding;

death – means irreversible loss of brain activity as demonstrated by loss of brain stem reflexes

Halal (Zabiha) / Kosher (Shechita) slaughter - severance of both jugular veins and carotid arteries, oesophagus and trachea, without severing the spinal cord, by slaying the animal with a swift stroke using a sharp knife of proper size.

GUIDELINES FOR THE SLAUGHTER OF ANIMALS FOR HUMAN CONSUMPTION

Article 1

General principles for slaughter

These guidelines address the need to ensure the welfare of food animals during pre-slaughter and slaughter processes, until they are dead.

These guidelines apply to those domestic animals commonly slaughtered in slaughterhouses, that is: cattle, buffalo, sheep, goats, deer, horses, pigs, ratites and poultry. Other animals, wherever they have been reared, should be managed to ensure that their transport, lairaging, restraint and slaughter is carried out without causing undue stress to the animals; the principles underpinning these guidelines apply also to these animals.

Personnel

Persons engaged in the unloading, moving, lairaging, care, restraining, stunning and bleeding of animals play an important role in the welfare of those animals. For this reason, there should be a sufficient number of personnel, who should be patient, considerate, competent and familiar with the provisions in these guidelines and in the applicable legislation.

The management of the slaughterhouse and the *Veterinary Services* should ensure that slaughterhouse staff carry out their tasks in accordance with the principles of animal welfare.

Animal behaviour

Animal handlers should be experienced and competent in handling and moving farm livestock, and understand the behaviour patterns of animals and the underlying principles necessary to carry out their tasks.

The behaviour of individual animals or groups of animals will vary, depending on their breed, sex, temperament and age and the way in which they have been reared and handled. Despite these differences, the following behaviour patterns which are always present to some degree in domestic animals, should be taken into consideration in handling and moving the animals.

Most animals belonging to domestic livestock are kept in herds and follow a leader by instinct. In free-moving animals, to exploit herding and following behaviour, animals for slaughter should be kept to the extent possible in the groups in which they were reared.

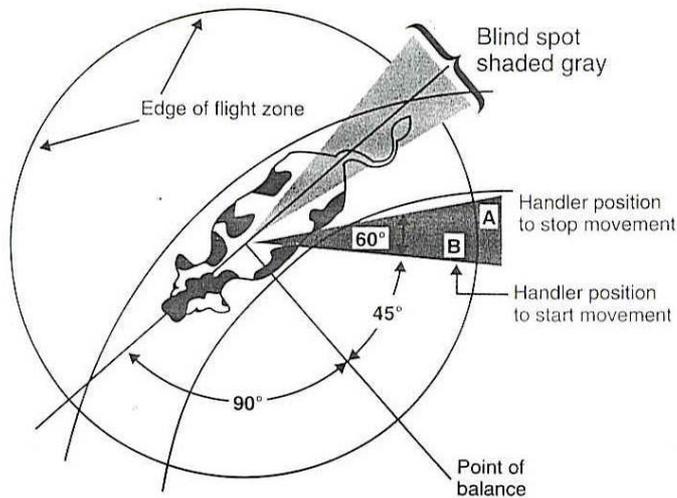
Animals which are unaccustomed or hostile to each other should not be mixed at slaughterhouses.

The desire of some animals to control their personal space should be taken into account in designing facilities.

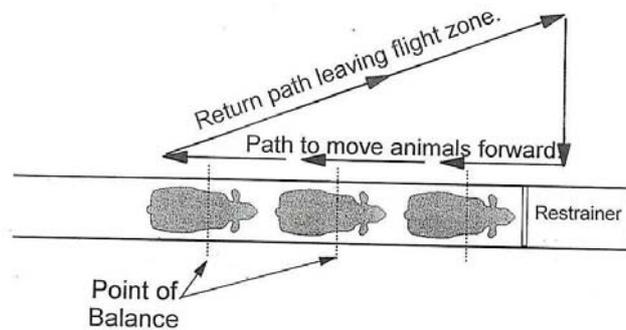
Domestic animals will try to escape if an animal handler approaches closer than a certain distance. This critical distance, which defines the flight zone, varies among species and individuals of the same species, and depends upon previous contact with humans. Animals reared in close proximity to humans ie tame have no flight zone, whereas those kept in free range or extensive systems may have flight zones which may vary from one metre to many metres. Animal handlers should avoid sudden penetration of the flight zone which may cause a panic reaction which could lead to aggression or attempted escape.

Appendix XXX (contd)

Appendix IV (contd)



FLIGHT ZONE



HANDLER MOVEMENT PATTERN TO MOVE CATTLE FORWARD

Animal handlers should use the point of balance at an animal's shoulder to move animals, adopting a position behind the point of balance to move an animal forward and in front of the point of balance to move it backward.

Domestic animals have wide-angle vision but only have limited forward binocular vision and poor perception of depth. This means that they can detect objects and movements beside and behind them, but can only judge distances directly ahead.

Although all domestic animals have a highly sensitive sense of smell, they react in different ways to the smells of slaughterhouses. Smells which cause fear or other negative responses should be taken into consideration when managing animals.

Domestic animals can hear over a greater range of frequencies than humans and are more sensitive to higher frequencies. They tend to be alarmed by constant loud noise and by sudden noises, which may cause them to panic.

Distractions and their removal

Distractions that may cause approaching animals to stop, baulk or turn back should be designed out from new facilities or removed from existing ones. Below are examples of common distractions and methods for eliminating them:

- Reflections on shiny metal or wet floors - move a lamp or change lighting.
- Dark entrances to chutes, races, stun boxes or conveyor restrainers - illuminate with indirect lighting which does not shine directly into the eyes of approaching animals.
- Animals seeing moving people or equipment up ahead - install solid sides on chutes and races or install shields.
- Chains or other loose objects hanging in chutes or on fences - remove them.
- Uneven floors or a sudden drop in floor levels at the entrance to conveyor restrainers – avoid uneven floor surfaces or install a solid false floor under the restrainer to provide an illusion of a solid and continuous walking surface.
- Sounds of air hissing from pneumatic equipment - install silencers or use hydraulic equipment.
- Clanging and banging of metal objects - install rubber stops on gates and other devices to reduce metal to metal contact.
- Air currents from fans or air curtains blowing into the face of animals - redirect or reposition equipment.

Article 2

Moving and handling animals

The following principles should apply to unloading animals, moving them into lairage pens, out of the lairage pens and up to the slaughter point.

- The use of force on animals that have little or no room to move should not occur.
- The use of instruments which administer electric shocks (eg goads and prods) and their power output should be restricted to that necessary to assist movement of the animals. If such use is necessary, it should be limited to the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes, mouth, ears, anogenital region or belly. Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets.
- Performance standards should be established in which numerical scoring is used to evaluate the use of such instruments and to measure the percentage of animals moved with an electric instrument. In properly designed and constructed facilities with competent animal handlers, it should be possible to move 75% or more of the animals without the use of electric instruments.
- Useful and permitted aids for moving animals include panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles; they should be used in a manner sufficient to encourage and direct movement of the animals but without physical contact with them.

Appendix XXX (contd)

Appendix IV (contd)

- Shouting or yelling at animals to encourage them to move should not occur as such actions may make the animals agitated, leading to crowding or falling.
- Implements which cause pain and suffering such as large sticks, sticks with sharp ends, metal piping, fencing wire or heavy leather belts should not be used to move animals.
- Animals should be grasped or lifted in a manner which avoids pain or suffering and physical damage (eg bruising, fractures, dislocations). In the case of quadrupeds, manual lifting by a person should only be used in young animals or small species, and in a manner appropriate to the species; grasping or lifting such animals only by their wool, hair, feet, neck, ears or tails causing pain or suffering should not be permitted, except in an emergency where animal welfare or human safety may otherwise be compromised.
- Conscious animals should not be thrown or dragged.
- Animals should not be forced to move at a speed greater than their normal walking pace, in order to minimise injury through falling or slipping. Performance standards should be established where numerical scoring of the prevalence of animals slipping or falling is used to evaluate whether animal moving practices and/or facilities should be improved. In properly designed and constructed facilities with competent animal handlers, it should be possible to move 99% of animals without their falling.
- Under no circumstances should animal handlers resort to violent acts to move animals, such as crushing or breaking animals' tails, grasping animals' eyes or pulling them by their ears. Animal handlers should never apply an injurious object or irritant substance to sensitive areas such as eyes, mouth, ears, anogenital region or belly.

Requirements for animals delivered in containers

- Containers in which animals are transported should be handled with care, and should not be thrown, dropped or knocked over. Where possible, they should be loaded and unloaded horizontally and mechanically.
- Animals delivered in containers with perforated or flexible bottoms should be unloaded with particular care in order to avoid injury. Where appropriate, animals should be unloaded from the containers individually.
- Animals which have been transported in containers should be slaughtered as soon as possible; animals which are not taken directly upon arrival to the place of slaughter should have drinking water available to them from appropriate facilities at all times. Animals which have not been slaughtered within 12 hours of their arrival should be fed, and should subsequently be given moderate amounts of food at appropriate intervals.

Methods for restraining and containing animals

Methods of restraint causing avoidable suffering, such as the following, should not be used in conscious animals:

- suspending or hoisting animals (other than poultry or rabbits) by the feet or legs
- indiscriminate and inappropriate use of stunning equipment on conscious animals
- mechanical clamping of an animal's legs or feet (other than shackles used in poultry) as the sole method of restraint

- cutting tendons or blinding animals in order to immobilise them
- using electric currents to immobilise animals, except for proper stunning.

Article 3

Lairage design and construction

The lairage should be designed and constructed to hold the maximum number of animals in relation to the throughput of the slaughterhouse without compromising the welfare of the animals.

In order to permit operations to be conducted as smoothly and efficiently as possible without injury or undue stress to the animals, the lairage areas should be designed and constructed so as to allow the animals to move freely in the required direction, using their behavioural characteristics and without undue penetration of their flight zone.

The following guidelines may help to achieve this.

Design

- The lairage should be designed to allow a one-way flow of animals from unloading to the point of slaughter, with a minimum of abrupt corners to negotiate.
- Pens, passageways and races should be arranged in such a way as to permit inspection of any animal at any time, and to permit the removal of sick or injured animals for which separate appropriate accommodation should be provided.
- Each animal should have room to stand up and lie down and, when confined in a pen, to turn around. The lairage should have sufficient accommodation for the number of animals intended to be held. Drinking water should always be available to the animals, and the method of delivery should be appropriate to the type of animal held. Troughs should be designed and installed in such a way as to minimise the risk of fouling by faeces.
- Holding pens should be rectangular rather than square, to allow as many animals as possible to stand or lie down against a wall. Where feed troughs are provided, they should be placed along the walls rather than in the centre of the pens, and should be sufficient in number to allow all animals to feed undisturbed.
- Where tethers, ties or individual stalls are used, these should be designed so as not to cause injury or distress especially when the animals are lying down, standing up, drinking and feeding.
- Passageways and races should be either short and straight, or slightly curved, as appropriate to the animal species. Passageways and races should have solid sides, but when there is a double race the shared partition should allow adjacent animals to see each other. For pigs and sheep, passageways should be wide enough to enable two or more animals to walk side by side for as long as possible. At the point where passageways are reduced in width, this should be done by a means which prevents excessive bunching of the animals.
- Animal handlers should be positioned alongside races and passageways on the inside radius of any curve, to take advantage of the natural tendency of animals to circle an intruder. Where one-way gates are used, they should be of a design which avoids bruising. Races should be horizontal but where there is a slope, they should be constructed to allow the free movement of animals without injury.

Appendix XXX (contd)

Appendix IV (contd)

- There should be a waiting pen, with a level floor and solid sides, between the holding pens and the race leading to the point of stunning or slaughter, to ensure a steady supply of animals for stunning or slaughter and to avoid having animal handlers trying to rush animals from the holding pens. The waiting pen should preferably be circular, but in any case, so designed that animals cannot be trapped or trampled.

Construction

- Lairages should be constructed and maintained so as to provide protection from unfavourable climatic conditions, using strong and resistant materials such as concrete and metal which has been treated to prevent corrosion. Surfaces should be easy to clean. There should be no sharp edges or protuberances which may injure the animals.
- Floors should be well drained and not slippery; they should not cause injury to the animals' feet. Where necessary floors should be insulated or provided with appropriate bedding. Drainage grids should be placed at the sides of pens and passageways and not where animals would have to cross them. Discontinuities or changes in floor patterns or texture which could cause baulking in the movement of animals should be avoided.
- Lairages should be provided with adequate lighting, but care should be taken to avoid harsh lights and shadows, which frighten the animals or affect their movement. The fact that animals will move more readily from a darker area into a well-lit area might be exploited by providing for lighting that can be regulated accordingly.
- Lairages should be well ventilated, and the air flow should be arranged so that odours and draughts do not adversely affect the health and welfare of the animals.
- Care should be taken to protect the animals from excessively or potentially disturbing noises, for example by avoiding the use of noisy hydraulic or pneumatic equipment, and muffling noisy metal equipment by the use of suitable padding, or by minimising the transmission of such noise to the areas where animals are held and slaughtered.
- Where animals are kept in outdoor lairages without natural shelter or shade, they should be protected from the effects of adverse weather conditions.

Article 4

Care in lairages

Animals in lairages should be cared for in accordance with the following guidelines:

- As far as possible established groups of animals should be kept together. Each animal should have enough space to stand up, lie down and turn around. Animals hostile to each other should be separated.
- Where tethers, ties or individual stalls are used they should allow animals to stand up and lie down without causing injury or distress.
- Animals should be kept securely in the lairage and care should be taken to prevent them from escaping and from predators.
- Suitable drinking water should be available to the animals on their arrival and at all times to animals in lairages unless they are to be slaughtered without delay.
- If animals are not to be slaughtered as soon as possible, suitable feed should be available to the animals on arrival and at intervals appropriate to the species. Unweaned animals should be slaughtered as soon as possible.

- In order to prevent heat stress, animals subjected to high temperatures, particularly pigs and poultry, should be cooled by the use of water sprays, fans or other suitable means.
- That lairage area should be well lit in order to enable the animals to see clearly without being dazzled. During the night, the lights should be dimmed.
- The condition and state of health of the animals in a lairage should be inspected at least every morning and evening by a veterinarian, or, under the latter's responsibility, by another competent person. Animals which are sick, weak, injured or showing visible signs of distress should be killed immediately.
- Lactating dairy animals should be slaughtered as soon as possible. Dairy animals with obvious udder distension should be milked to minimise udder discomfort.
- Pregnant animals giving birth during the journey or in the lairage should be slaughtered as soon as possible or provided with conditions which are appropriate for suckling and the welfare of the newborn.

Recommendations for specific species are described in detail in Appendices XXX.

Article 5

Management of foetuses during slaughter of pregnant animals

The welfare of foetuses during slaughter of pregnant animals can be safeguarded by following the guidelines outlined below:

- After slaughter of a pregnant animal, if the foetus does not inflate its lungs and breathe air, it does not become conscious and therefore cannot suffer.
- When uterine, placental or foetal tissues, including foetal blood, are not to be collected as part of the post-slaughter processing of pregnant animals, all foetuses should be left inside the unopened uterus until they are dead. This is especially important if the foetuses are apparently mature, ie close to birth at the end of a full-length pregnancy.
- When uterine, placental or foetal tissues are to be collected, where practical, foetuses should not be removed from the uterus until at least 15-20 minutes after the maternal neck or chest cut. Foetal death or irreversible brain damage will usually have occurred by 15-20 minutes after slaughter of the dam.
- Foetuses should not be removed from the uterus sooner than five minutes after the maternal neck or chest cut to ensure that their brain electrical activity is flat at that point. A foetal heartbeat will usually still be present and gasping and other foetal movements may occur at this stage after the maternal neck or chest cut.
- If a living foetus removed from the uterus must be prevented from inflating its lungs and breathing air.
- A foetus which may breathe air, or which is exposed earlier than the 5-minute minimum waiting time after slaughter of the pregnant animals, must be killed with a captive bolt firearm or a blow to the head with a suitable blunt instrument.

The above guidelines do not refer to fetal rescue. Fetal rescue is the practice of attempting to revive fetuses found alive at evisceration of the dam.

Appendix XXX (contd)

Appendix IV (contd)

Fetal rescue may lead to serious welfare complications. These include impaired brain function resulting from oxygen shortage before rescue is completed, compromised breathing and heat production because of fetal immaturity, and an increased incidence of infections in the rescued young due to a lack of colostrum. Foetal rescue should therefore not be attempted during normal commercial slaughter.

Article 6

**Summary of slaughter methods and their respective animal welfare issues
(under development)**
