



## **Welfare of Animals at Slaughter and Killing A New Regulation**

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### **Executive Summary**

The Federation of Veterinarians of Europe welcomes the opportunity to make an initial contribution to the drafting of the new legislation on the welfare of animals at slaughter and killing.

Veterinarians are commonly perceived by the public in their traditional role as caretakers of companion animals and livestock. However, one very important and often underestimated part of their field of activity is the work in food hygiene and therefore public health. Every establishment that slaughters animals for food has an Official Veterinarian present throughout the slaughter process who ensures that the required standards of animal welfare, animal health and hygiene are maintained.

The veterinarian, in addition to being particularly trained to protect animal health and public health, possesses the full range of knowledge and skills necessary to assess animal welfare, to identify the causes of poor welfare and to make recommendations for its correction. As such, veterinarians have a central role to play in the regulation of the slaughter and killing of animals whether for human consumption or disease control.

FVE believes that the Regulation must ensure that stress during the slaughter process should be kept to a minimum and where possible distress and pain eliminated. To achieve this, animals should be stunned effectively before slaughter with a method causing immediate unconsciousness, preferably death. If stunned, no further procedures may be performed on the animals before they are subsequently die by exsanguination.

The following are some of the key points which should be included in the new Regulation:

- \*It is imperative that all operatives involved with stunning and slaughter must be properly trained, their skills and knowledge examined and certified.
- \*Each abattoir should appoint an appropriate employee to be the Animal Welfare Operative (AWO) responsible for overseeing the unloading, lairaging and slaughter process and to ensure compliance with the standards and legislation.
- \* All equipment or method used for stunning and killing should be approved on a European level before use.
- \* The Official Veterinarian has an important role to fulfil both in auditing and inspection.

FVE is of the opinion that from an animal welfare point of view, and out of respect of an animal as a sentient being, the practice of slaughtering animals without prior stunning is unacceptable under any circumstances.

#### **President**

Tjeerd Jorna

#### **Vice-Presidents**

Seán O Laoide  
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## Introduction

The comments attached are made following consideration of the current Council Directive 93/119 and lists our suggestions as to what amendments are required given the current state of scientific knowledge. As well as taking into account the recent scientific reports on the subject produced by the European Food Safety Authority and the Office Epizootic International scientific, the comments provided are also based on the practical experience of a number of our members who have first hand knowledge of the problems, difficulties and opportunities encountered in the humane killing of animals of many species in slaughterhouses, during the eradication of disease and in the laboratory.

FVE believes that the format and scope of the new Regulation should be similar and complementary to the Regulation on the protection of animals during transport (1/2005) and the Food Hygiene Package.

The veterinary profession in Europe, in addition to being particularly trained to protect animal health and public health, possesses the full range of knowledge and skills necessary to assess animal welfare, to identify the causes of poor welfare and to make recommendations for its correction. In addition, as food hygiene Official Veterinarians they also possess audit and inspection skill. Consequently, veterinarians have a central role to play in the regulation of the slaughter and killing of animals whether for human consumption or disease control.

The veterinarian, as the advocate for the animal, has a professional and ethical responsibility to ensure that the welfare of the animal is given priority over commercial, financial or production requirements, in other words that the animal is put first.

A key factor in establishing and maintaining optimal animal handling and stunning in slaughterhouses is a clearly communicated management commitment to animal welfare demonstrated through the appropriate training of all staff involved in animal handling and ongoing monitoring, supervision and recording of animal handling and stunning practices.

As stated in the Treaty of Rome animals are sentient beings, not agricultural products.

## Specific comments

### Article 1

The scope of the current Directive is unclear. The first article of the new Regulation should be carefully considered so to avoid ambiguity. See also comments on articles 5, 9 and 12.

### Article 2

Definition 5: Stunning: *immediate or rapid* loss of consciousness which lasts until death occurs through slaughter or destruction of the brain.

Definition 7: Slaughter: A process causing the death of an animal, including bleeding.

A definition of bleeding should be added. We Suggest:

Bleeding: Procedure where both carotids or the vessels from where they arise are cut in the purpose to kill the animal or to empty the carcass of blood.

### Article 5

FVE believes that the new regulation should be extended to cover all animals brought to a slaughterhouse for slaughter (and not only solipeds, ruminants, pigs, rabbits and poultry). A

slaughterhouse as defined by Regulation 853/2004 means any establishment used for slaughtering and dressing animals, the meat of which is intended for human consumption.

#### **Article 7**

All operatives involved with stunning and slaughter must be properly trained, their skills and knowledge examined, in particular in the field of welfare, and the person should be certified as competent by the Official Veterinarian. (EFSA-Q-2003-093, page 6, 1.2.) FVE will assist the EU in laying down training objectives.

Regulation 854/2005 of the hygiene package Art 5 point 7 says ‘Member states shall ensure that official veterinarians and official auxiliaries are qualified and have undergone training in accordance with Annex I, Section III, Chapter IV, e.g. point s) regarding animal welfare at the level of production, transport and slaughter’.

The slaughterhouse operator should monitor and correct non-compliances with welfare requirements. The role of the official Veterinarian should be to audit documentation of checks carried out by the operator and verify compliance.

Each abattoir should appoint an appropriate employee to be the Animal Welfare Operative (AWO) responsible for overseeing the unloading, lairaging and slaughter process and to ensure compliance with the standards and legislation. (Article 7) FVE would wish to assist the commission in laying down the knowledge, skills and competencies such a person needs and to detail his/her tasks.

In order to have a global and uniform approach with regard to animal welfare at slaughter for commercial food production and for disease control purposes, broad guidelines should be drawn up at Community level. In addition, specific parameters should be defined for those points where sufficient scientific evidence exists and practical experience has shown that animal welfare is poor or unacceptable. These guidelines should promote animal welfare, identify risk points and detail the most effective procedures. A Community strategy should take a comprehensive, integrated approach to the operation of controls. In view of the non-binding character of these guidelines to be established it is appropriate to set up a consultative committee to draft this document. FVE wishes to assist the Commission in drawing up such guidelines.

The guidelines may, in particular, contain recommendations regarding:

- design of unloading bays
- design, capacity and care in the lairage
- handling of animals before and during slaughter
- technical requirements for the design and operation of group stunning pens
- technical requirements regarding driving, restraining, stunning and killing equipment

The slaughterhouse operator should monitor levels of welfare in each point and where they are beyond acceptable limits, should identify the cause of the problem and correct it.

Any equipment or procedure used to for stunning and killing must be suitable for the purpose and not depend on systematic use of electrical goads or similar aversive force. Currently there is no mechanism for approval of equipment or procedures, which makes it difficult for a slaughterhouse operator to ensure that they use/buy procedures and equipment which is efficient and welfare friendly.

New methods (including new electrical stunning current or voltage, frequencies or gas mixtures) for use in restraint, stunning or slaughter should be tested from an animal welfare viewpoint and only methods seen as efficient and as such approved on a European level by

the competent authority should be put in use. This may be based on information by the manufacturers and/or independent research.

Professional advice on health and welfare aspects should be sought when the building of a new slaughterhouse is planned, or an existing one is renovated. The design plan, the proposed equipment and procedures to stun and kill should be approved by the competent authority in relation to the species slaughtered. The approval shall include a maximum line speed according to the species of animal, infrastructure and personnel capacity<sup>1</sup>.

#### **Article 9**

FVE believes that the Directive's provision on slaughter outwith slaughterhouses needs to be strengthened. All animals should be stunned in advance. Consideration must be given by the competent authority as to how to protect animal welfare through training and audit. Training and competence requirements should also count for all operatives dealing with slaughter outwith a slaughterhouse.

#### **Article 12**

Animal welfare must take priority over food hygiene or financial concerns. The difficulty of transporting an animal over 50kg without causing further suffering must be taken into consideration.

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<sup>1</sup> Reason: often plants increase line speed afterwards and stunning equipment is not sufficient any more]

## **Annex A: Requirements for the unloading and lairaging of animals in slaughterhouses.**

### **Unloading**

Efficient scheduling procedures should be implemented by slaughterhouse operators so that animals do not have to wait to be unloaded.

If animals' waiting time on lorries regularly exceed 30 minutes, the Official Veterinarian must take necessary enforcement action<sup>2</sup>.

All slaughterhouses must have a well-designed, constructed and maintained unloading area [a purpose built, raised unloading bay]. The design of the unloading ramp, especially the floor and the maximum permitted incline/decline must prevent slipping and falling and be such as to allow unloading without unnecessary stress to the animals. Scientific evidence confirms that the maximum incline/decline should be 20°. This figure should be included either in the Regulation or in the supporting guidance.

The use of instruments that administer electric shocks should be in line with the Transport Regulation; "The use of instruments which administer electric shocks shall be avoided as far as possible. In any case, these instruments shall only be used for adult bovine animals and adult pigs which refuse to move, and only when they have room ahead of them in which to move. Shocks shall last no longer than one second, be adequately spaced, and shall only be applied to the muscles of the hindquarters. Shocks shall not be used repeatedly if the animal fails to respond." Slaughterhouse staff shall be trained and slaughterhouses should be designed in a way that instruments administering electric shocks become unnecessary.

### **Lairaging**

Lairage rooms should be constructed in such a way that animals demonstrate regularly resting behaviour. However this may not be possible in establishments which utilise system which move the animals, particularly pigs, continuously.

Milking of cows – animals in the first third of lactation should be milked prior to transport and slaughtered on arrival or within 15 hours after leaving the farm.

Annex A, II, 5 (and Annex C, II, (c)): "Animals should not be taken to the place of stunning unless they will be stunned and killed immediately." However, by group wise stunning or slow slaughter speeds, shorter waiting times of 1-5 minutes may facilitate voluntary movement and avoid stressful handling, as long as the animals are not restrained or stressed in other ways in the stunning room/boks (the animals may be more patient waiting for the slaughter than the other way round).

Annex A, II, 9 & 10      Lairage time > 12 hours => "...must be given moderate amounts of food at appropriate intervals". Important that the food is also appropriate – and fed in an appropriate way – or the feeding may cause additional stress. There should be adequate feeding space for each animal in the lairage pen.

The non slip flooring should also apply for driveways/passageways, for example as an amendment to Annex A, II 3.

All animals including tethered animals must have access to drinking water, see Annex A II 10].

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<sup>2</sup> Note: in some cases after 30 min there may be no problems, while other cases really require action after 30 min.

## **Restraint of animals before stunning, slaughter or killing**

Appropriate restraint shall be applied to the animals before they are stunned or immediately killed. In particular individual restraint is necessary when captive-bolt is used or when animals are slaughtered without prior stunning. Restraining should last until the animal is unconscious.

Automatic driving systems/pushing gates should always be supervised. The pressure used should be verifiable.

Animals, with the exception of poultry, must be restrained for slaughter in the upright position<sup>3</sup>.

The movement of an animal must be restricted in such a way that the stunning equipment can be placed in the exact position without difficulties.

Any method of restraint which causes distress or pain to the animal should not be used. This includes methods such as those deployed to rotate cattle from an upright position as it has been demonstrated that this compromises the animals' welfare while alternative methods are available which provide better welfare conditions without additional costs.

Rabbits should not be suspended. (Annex B, para 2)

The EFSA report states that wing flapping stops 14-22 seconds after hang on. If birds are left too long they start to flap again. The shackling to stun period should be less than one minute.

The shackle design should be appropriate to the species and type of poultry being slaughtered. Poultry shackling lines should be constructed in such a way to prevent wing flapping and pre-stun electrical shocks, as much as possible.

Floor of the slaughter pen must be non-slip and approximately horizontal in both the longitudinal and transverse direction, (a slope of 2-5 degrees in the transverse direction is acceptable to facilitate drainage). Uneven floors or a sudden drop in floor levels at the entrance to conveyor restrainers should be avoided. If necessary, a solid false floor should be installed under the restrainer to provide an illusion of a solid and continuous walking surface.

The floor just in front of the stunning pen must also be non slip and facilitate movement. This point is often very difficult for the animals as these pens/traps require a certain level above the floor and by consequence the incline just in front is often too steep. In Germany a maximum incline of 7° (cattle) to 10° (pigs) is permitted, in Belgium a maximum degree of 11.5°.

Group stunning must be carried out in a manner that does not interfere with the stun-stick interval.

The size of the pen and the size of the group must be appropriate to the species and the weight of the animals and must prevent pre stun shocks as well as too much possible movement of the last animals of the group before stunning.

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<sup>3</sup> The group members recognized the point that in Spain and Italy many small light lambs are lifted by one leg as no effective restraint device exists. It should be possible for Member States to make regional derogations possible based on scientific evidence or proven experience.

## **ANNEX C Stunning or killing of animals other than animals reared for fur**

### **Stunning:**

Amend methods of stunning to penetrative captive bolt, non penetrative captive bolt, manual blow to the head, electrical stunning and gas mixtures. (Annex C, I A.)

Maintenance of all stunners (calibration of internal control units for gas stunning, change of electrodes and cables, etc) must be carried out according to manufacturer's instructions.

The slaughterhouse operator shall ensure that its records of maintenance carried out must be retained for audit by the Official Veterinarian.

All equipment should also be identified with a unique number.

Where possible irreversible stunning method should be used as an alternative to reversible methods.

**Ineffective stunning - either by incorrect use of stunning equipment, insufficient magnitude or duration or by the use of improperly maintained equipment - is a major cause of compromise of animal welfare at the time of slaughter. Monitoring for signs of recovery in order to evaluate the effectiveness of the stunning method should be built in the Food Business Operators Standard Operating Procedures.**

### **Penetrative captive bolt**

The option of shooting in the poll should be retained for use in buffalo<sup>4</sup>, small horned ruminants and horned deer and on occasions in cattle when the initial shot has failed to stun the animal. The common recommendation for "re-shooting" (e.g. HSA) the recommended position is near the first, but slightly lower/higher or to the other side, depending on where the first unsuccessful shot was aimed.

### **Non-penetrative captive bolt**

It is not realistic to legislate 'to produce an effective stun without fracture of the skull'. (Annex C, II, 2 (a))

### **Electrical stunning**

The device to measure impedance and prevent operation of the apparatus if the minimum required current does not fulfil the intended purpose and leads to problems in practice. It does exist commercially but measured impedance at low voltages cannot be compared to what happens at the higher voltages during stunning. Moreover these devices often prevent current flow, though electrodes are in correct position and lead to unnecessary pain. (Annex C, II, 3, A, 2 (a))

The use of constant current stunning devices is recommended over constant voltage stunners.

The problem of water fowl 'swan necking' in electrical water baths should be addressed by ensuring stun to kill rather than stunning.<sup>5</sup>

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<sup>4</sup> Water buffalos can effectively be shot in front by using the Schermer KL Captive Bolt.

<sup>5</sup> Good backup stunning methods only exist for water baths for poultry when the speed of the line is not too high. The head-only electrical tong (e.g. Schermer device) can be used but needs approximately 10 seconds per bird (take apply and put away and cut) and thus is of limited use for

A table should be required in the Regulation that lays down the minimum current/frequency<sup>6</sup> necessary to stun different species types as described in the EFSA/OIE recommendations. The Competent Authority may derogate from these minimum requirements if evidence is provided that an effective stun can be achieved at a lower level.

Alarm system have to be calibrated, reliable, effectively, user-friendly<sup>7</sup> and have verifiable alarm settings.

### **Exposure to gas mixtures**

When non aversive gas mixtures are available for use under commercial conditions, they should be introduced as an alternative to carbon dioxide.

Where possible, the aim should be to kill by gas mixture rather than stun.

The combination of gas concentration, dwell time, time interval between exposure to the gas and sticking and the accuracy of sticking must guarantee, that the animals do not regain consciousness before death by exsanguination supervenes.

Gas mixtures for poultry should be introduced in line with EFSA requirements.

Visible access to the stunning chamber must be possible during introduction until the animals have lost posture. This will assist the responsible company employee and the Official Veterinarian in their important task of assessing the effectiveness of the gas mixture during the important induction phase where slight changes in concentration of one component or differences between flocks may have enormous effects. Access can be covered /closed in the case light can cause problems.

### **Killing**

Amend methods to free bullet, electrocution, exposure to gas mixtures.  
(Annex C, I, B)

### **Dislocation and decapitation**

Dislocation of the neck should not be used routinely in licensed slaughterhouses. It should however be retained for emergencies for birds of less than 3 kg when other techniques have failed and after stunning e.g. by concussion.

### **Vacuum chamber**

Remove reference to vacuum chamber.

## **ANNEX D Bleeding of animals**

Properly stunned animals should not display signs of sensibility on the bleed rail. The following signs of regaining consciousness must not appear after stunning and during exsanguination: spontaneous eye movement, vocalization, rhythmic breathing, righting reflex. More detailed information on recognising the signs of unconsciousness and regaining consciousness in animals should be contained in the guidelines and the training objectives.

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high speed lines . For high speed lines the only one practicable on line is decapitation for poultry up to 3 kg..

<sup>6</sup> Necessary to see current in relation to frequency

<sup>7</sup> Should not tell the current used for each animal if you use a constant current stunning device. Should only note the operator when the requested current is not met.



Must involve either both carotid arteries or the vessels from which they arise (e.g. chest stick). (Annex D, 2)<sup>8</sup> (at least if a reversible stunning method is used)

Annex D, point 2 second sentence: “*After incision of the blood vessels, no further dressing procedures may be performed on the animals before movement has ceased*”. Electrical stimulation may only be used on animals after they have been checked for efficient stunning.

## **Other remarks:**

### ***Slaughter without prior stunning***

See FVE document FVE/02/104

### ***Killing of emergency slaughter animals on farm***

Carried out by or under the supervision of an authorised veterinarian – see hygiene regulation.

### ***Slaughter of deer***

The current categorisation of deer into wild and farmed deer is not helpful in terms of animal welfare. Alternatively, deer should be categorised as either domesticated, semi-domesticated or non-domesticated since some types of deer while kept extensively are highly domesticated and vice versa.

Non-domesticated, “Red and fallow deer should be killed on farm by shooting in situ unless they are well adapted to human contact and hence not significantly disturbed by human proximity. – EFSA Q2005-005, page 9, 3<sup>rd</sup> bullet point.” In this case, as in all others the welfare of the animal is paramount, so shooting in the wild or suitable enclosure must be permitted. Detailed information as to equipment to be used, calibre and bullet type for each species, should be contained within notes for guidance.

Semi-domesticated deer, such as reindeer, are domesticated to the extent that they can be easily handled. This means that they have an owner and are sometimes handled. As these animals are slaughtered in rather great numbers, it is impractical to shoot them in the wild. However, when first handled they can be stunned in the common positions. Large, horned males can be shot like horned sheep, calves in the frontal position.

For domesticated deer, penetrative captive bolt can be used at a variety of positions including temporal – especially elk and reindeer.

### ***Slaughter of ratites***

Recommendations contained in EFSA-Q-2005-005, page 10, 5.2.

Ratites should be slaughtered in a slaughterhouse designed with the size of the animal in mind. To restrain them they should be blinded in a welfare-friendly way.

### ***Slaughter of fish***

See OIE guidelines

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<sup>8</sup> The hygiene regulations recommend not to cut the trachea – this is not possible when cutting both carotid arteries and as such from a welfare point of view not advisable.

Today's practise varies from no stunning at all to different treatments (chilling, chemicals, gas/gas mixtures, electricity) that may or may not result in unconsciousness - partly with detrimental effect on meat quality and little or no control over animals regaining consciousness before killing. Several procedures used to achieve electrical stunning seem to end up with either immobilised animals or impaired meat quality. All people involved seem to agree that CO<sub>2</sub> is not acceptable for fish, due to a long induction phase and strong aversive reactions.

The only reliable and practical method seems to be percussive stunning or the use of spikes for some species. Mechanised concussion stunners/machines are operational as well in Scotland as in Norway.

### **Killing methods for disease control**

See OIE guidelines for the killing of animals for disease control purposes - appendix 3.7.6 .

### **Methods for killing for fur animals**

From information provided, it appears that the principal method for killing foxes is an electrical stun/killing method, where the current is applied through one electrode in the rectum and another in the mouth (0.3 A for 3 seconds, based on research by Lambooj). The method seems to be acceptable, as the animals are left for at least 30 minutes before further procedures are carried out, without any reported problems with animals regaining consciousness.

Ampere meters/recordings are usually not available.

For other species in the fur production, there are several methods in use:

- CO<sub>2</sub> has been demonstrated to be aversive to animals and problematic due to very simple equipment with poor control over gas supply and variation in the actual concentration
- CO - reported to function well - may represent some hazards for operators
- Electrical stunning/killing: Some systems obviously do not result in a heart arrest, as the animals regain consciousness relatively fast. Hence, methods are combined with dislocation of the neck. It seems, however, that scientific data on whether the animals are properly stunned or rather immobilised are scarce (no references in the report from SCAHAW-2001).

Suggestion:

- All personnel using stun/kill devices on fur animals should be certified.
- CO<sub>2</sub> stunning should only be accepted under controlled conditions (manometers, sensors measuring the actual gas-concentration in the stunning-box.)
- Electrical stunners for foxes should be equipped with ampere and voltmeters.
- Electrical stunning-devices that do not result in a heart fibrillation should not be used.

If sick or injured animals have to be killed “out of season”, other methods such as a manual blow on the head may be acceptable.

### **Killing of surplus chicks and embryos in hatchery waste**

The same gas mixtures should be approved as for killing in a licensed slaughterhouse.

For killing surplus chicks and embryos there are two mechanical possibilities, which must both lead to an instantaneously lethal destruction of the brain of every animal fed into the apparatus

- rotating blades

- projections – the gap between the projections should be less than 10 mm<sup>9</sup>.

### **Hunting**

FVE believes strongly that the provision added to this paragraph, which refers to “respecting religious rites, cultural tradition and regional heritage” should not be used as an excuse for condoning cruelty to animals. Normally hunting is not in the competence of the EU but we could make a specific statement that FVE disapproves certain hunting practices.

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<sup>9</sup> In one bsi-investigation of a maceration device they found lethal destruction of the brain of 16 mm chickens heads with projections with a gap of 8 mm, where the projections of each cylinder left a gap of 3 mm. Humane Slaughter Association in the UK recommends 10mm.