**Guidance for operators and masters of vessels, container manufacturers and persons shipping farm livestock and horses in containers**

**1 *Introduction***

1.1 This Guidance has been prepared to assist with uniform application of Council Regulation (EC) 1/2005 on the protection of animals during transport and related operations (The Regulation) as it applies to shipments of farm animals and horses carried by sea in a container on a vessel. The Welfare of Animals (Transport) Regulation (NI) 2006 provides for enforcement of the Regulation, and other related provisions.

1.2 Enforcement of the Regulation is the responsibility of DAERA Veterinary Service Animal Health Group in Northern Ireland and Local Authorities (usually Trading Standards or Animal Health Officers) and the State Veterinary Service in GB.

1.3 The Regulation is directly applicable in all EU Member States with effect from 5 January 2007.

1.4 The complexities of the Regulation result in different requirements according to journey length, method of transport, and the species of animal. Some provisions and technical requirements for particular journeys are not entirely clear.

1.5 Technical Guidance for construction, operation and use of containers for transporting live animal shipments on vessels is given in order to consolidate relevant requirements into one place, and to assist with clarification of what DAERA considers to be practical application and enforcement of the Regulation. However, only a court of law will be able to give a definitive ruling in any dispute between enforcers and transporters.

1.6 This Guidance only applies to commercial shipments of Farm Animals and Horses, but the general principles may be a useful guide for transport of other species carried in a container on a vessel.

1.7 Requirements set out here and in Appendices 1, 2 and 3 are, for clarity of meaning, sometimes a précis of the legal wording in the Regulation. Not every provision has been included. The text of the Regulation should always be consulted.

**2 *Application***

2.1 The Regulation is directly applicable, in all EU Member States, with effect from 5 January 2007.

2.2 The Regulation only applies to transport “in connection with an economic activity” (Article 1.5) (commercial transport). Examples are given in part 1 of this guidance to assist with determination of the meaning of “economic activity”.

2.3 Transport of animals outside the scope of the Regulation is also regulated by the Welfare of Animals (Transport) Regulation (NI) 2006. In such shipments in a container the general principles of this guidance should be followed, as appropriate to the species, in order to comply with the requirement to protect the welfare of these animals during transport.

**3 *Notes***

3.1 The Regulation defines a ‘Means of Transport’ as road or rail vehicles, vessels and aircraft used for the transport of animals. (Article 2 (n))

3.2 ‘Container’ is defined (Article 2 (g)) as any crate, box, receptacle, or other rigid structure used for the transport of animals which is not a means of transport.

This definition therefore extends the normal meaning of sea container to any animal enclosure transported on a vessel. But, because the Regulation has specific provisions for animals carried on ‘specialist’ livestock vessels and in vehicles on roll-on roll-off vessels, containers used for these shipment methods are excluded from this Guidance.

3.3 All means of transport’, including vessels when carrying animals in a container, must comply with the general provisions of the Regulation, as applicable, in Article 3 and Annex I Chapters II and III.

3.4 Containers for animals must comply with the general provisions of the Regulation, as applicable, in Article 3 and Annex I Chapters II and III. When Farm Animals and Horses are being transported on a long journey (see 3.9) the additional provisions of Annex I Chapter VI must also be complied with.

3.5 Construction requirements for a sea container are set out in Appendix 1, and operational requirements in Appendix 2.

3.6 Containers must be inspected and approved before use for a long journey as described in Appendix 3.

3.7 In order to fully protect the welfare of animals being transported in a container on a vessel additional precautions and guidance (based on practical experience) should be followed and has been included in the Appendices.

3.8 ‘Journey’ is defined (Article 2 (j)) as including the entire transport of the animals between places of departure and destination. This includes transport to and from the port, the time the animals spend there, and the voyage.

3.9 ‘Long Journey’ is defined (Article 2 (m)) as one that exceeds 8 hours from when the first animal is moved (i.e. loaded at the point of origin).

3.10 The Regulation appears to regard animals being carried in a container on a vessel as being transported in the course of a long journey. Therefore this guidance assumes that the applicable ‘Additional Provisions for Long Journeys’ (Annex I Chapter VI) must be complied with by the container and the vessel.

3.11 The Regulation appears to assume that the animals will be placed in the container before this is loaded onto the vessel, and remain there until after the container has been landed at the port of destination. But there may be occasions when animals are loaded separately onto the vessel, and then placed in a container which is already on board.

**4 *Responsibilities***

4.1 Every person involved with the commercial transport of animals has a responsibility (Article 3) - as appropriate to their role in planning, organising, and carrying out the journey – to comply with the Regulation and to protect the welfare of the animals, in particular not to cause them injury or undue suffering. In the case of transport by container on a vessel such responsibility may be broadly, but not exclusively, described as follows.

4.2 Animal shippers (i.e. those who arrange for animals to be transported from one place to another) must:

* plan the journey and have contingency arrangements in place should any delay occur (examples might be delayed loading or departure of the vessel which could be caused by one of several reasons including adverse weather);
* be satisfied that the container has been inspected and has a Certificate of Approval, and that the appropriate competent authority has been notified of any subsequent significant change to the livestock fittings and equipment, and that it is suitable for transport of the number and type of animals which they intend to ship;
* be satisfied that water feed and rest intervals for the animals can be complied with;
* ensure that the animals are fit for the journey, and are accommodated singly or in appropriate groups within the container, with sufficient floorspace and headroom.
  1. Shipowner/charterer/operator must:
* ensure that the Master is competent in and has specific instructions for transport of animals in containers;
* arrange suitable stowage on the vessel for the container and associated supplies and equipment;
* ensure that sufficient competent animal attendant(s), who may be members of the crew, are able to travel with the consignment.
  1. Shipmaster, and officers under his authority must ensure that:
* the container has a valid certificate of approval;
* arrangements for loading and unloading the animals and the container are suitable and sufficient to protect the animals’ safety;
* stowage of the container on the vessel is such that sufficient ventilation and protection from the weather and the sea is provided for the animals;
* access to the container and the animals is available and possible for the attendant in all weather conditions at any time during the voyage;
* the vessel or container is provided with sufficient water food and bedding for the animals and the length of voyage;
* the weather conditions anticipated for the voyage are such that the animals will not be caused injury or undue suffering;
* sufficient trained and competent attendants (who may be members of the crew) travel on the vessel, that they have access when necessary to the animals, and tend them at appropriate intervals;
* a means, appropriate to the species, of humanely killing any animal which suffers serious injury is available, and that there is a person competent in its use.
  1. Animal attendant(s) – must ensure that:
* the animals are fit for the journey;
* the animals are suitably accommodated within the container;
* a sufficient supply of animal food and bedding is provided, and that fresh water is available;
* appropriate veterinary medicines are provided, and that they are competent to use them if necessary;
* the container and supplies for the animals are located so that access to them is possible;
* the animals are watered, fed and otherwise tended at appropriate intervals throughout the voyage;
* the master is kept informed of any relevant facts about the animals.

**5 *Authorisation of transporters***

5.1 All Transporters, defined as ‘any natural or legal person transporting animals on his own account, or for the account of a third party’ (Article 2(x)) must be authorised by the Competent Authority (Article 6.1) where the journey exceeds 65km (approx 35 nautical miles) (Article 6.7).

5.2 Authorisations are valid for not more than 5 years, and must be either for journeys up to 8 hours (‘Type 1’) (Article 10) or for long journeys (‘Type 2’) (Article 11). See section 3 in Part 1 of this guidance for detailed advice about authorisations.

5.3 In the case of transport by container on a vessel (which is assumed to form part of a long journey) the shipowner/operator/charterer will require a ‘Type 2’ authorisation where the voyage is of more than 35 nautical miles, and the journey and the animals carried are within the scope of the Regulation.

**6 *Animal attendants – competence and training***

6.1 Transporters (see 5.1) must ensure that sufficient attendants (who may be members of the crew) for the number of animals transported accompany the animals on the vessel. (Article 6.6). The only exception is when the animals are in secured and adequately ventilated containers which are provided with sufficient water and food, in dispensers which cannot be tipped over, for twice the anticipated journey time. (Article 6.6(a)). However, this exception is not considered appropriate for shipments of horses and farm animals.

6.2 Transporters must ensure that personnel responsible for animals during transport have received training in relevant parts of the Regulation’s Annexes I and II (Article 6.4). Training may be by any suitable method.

6.3 The master, officers, and crew of a vessel transporting animals in a container must be trained in and be competent to perform their duties with respect to carriage of animals as appropriate to their individual role in the operation. There is no requirement for any certificate of competence, but evidence of training may help the transporter to be sure that the Article 6 has been fulfilled.

6.4 Attendants must be trained in and be competent to perform their duties with respect to care of the animals as appropriate to their individual role in the operation. There is no requirement for any certificate of competence, but evidence of training may help the transporter to be sure that Article 6 has been fulfilled.

6.5 See section 4 of Part 1 of this guidance for detailed advice about competence and training.

***Appendix 1***

**CONTAINER CONSTRUCTION**

**1 General**

1.1 The container and its livestock fittings must be designed, constructed, and maintained so as to avoid injury and suffering and ensure the safety of the animals. (Ch. II, 1.1(a)). Several factors, which may be different for each occasion on which the container is used, must be considered.

1.2 There must be no sharp edges, protrusions, gaps or spaces, or fittings within the container or any pen or stall, or loading ramp which might cause injury to the animals.

1.3 The animals must be protected from adverse effects of the weather and the sea, and extreme temperatures. (Ch. II, 1.1(b)).

**2 Container**

2.1 The container must have a solid roof or other substantial overhead covering, preferably insulated and painted a light colour externally (Ch. VI,1.1).

2.2 The sides and ends of the container must be closed, where necessary, in order to provide sufficient protection from the weather and the sea (Ch. II, 1.1(b)).

2.3 The container must be provided with sufficient apertures in its sides and ends, or with a mechanical system, for ventilation. (Ch. II, 1.1(e)) Detailed guidance is given in paragraph 3 below.

2.4 There must be a means for the attendant to gain access to the container, and to each livestock pen or stall, at all times for the purpose of tending the animals. (Ch. II, 1.1(f)) This should be available in any weather conditions.

2.5 The container, if of more than 50kg weight, must be fitted with sufficient adequately strong securing points (Ch. II, 5.3).

2.5 The container must be marked to indicate the presence of live animals, and to show which way up it must be positioned (Ch. II, 5.1).

**3. Ventilation**

3.1 The provision of adequate ventilation to the interior of the container during loading, throughout the voyage, and at unloading is essential. The amount of ventilation provided at any time must be sufficient to ensure that an acceptable environment for the animals is maintained (Ch .II, 1.1(e) & Ch .III, 2.6).

3.2 Several factors must be taken into account when designing the ventilation system. These include:

* The number and species of the animals;
* The overall design of the container;
* Stowage position on the vessel, particularly whether on an open deck or underdeck;
* Ambient conditions and weather expected during the voyage.

3.3 Specific guidance cannot be given for a container stowed on an open deck because each case must be assessed individually. Ventilation apertures are likely to need to be fitted with a means of closure, so that they can be adjusted according to the prevailing weather. Some circumstances may indicate that mechanical ventilation should be fitted to assist natural aperture ventilation.

3.4 A container stowed within an enclosed or partially enclosed deck will require more ventilation apertures than one stowed on an open deck, and is likely to also need a mechanical (forced) ventilation system. An assessment of the particular circumstances must be made to determine the appropriate requirements.

3.5 An enclosed or partially enclosed deck within which a container is stowed should be fitted with a mechanical ventilation system. The air change capacity required will be dependent on the number and type of animal containers to be carried and other circumstances. It is recommended that the system should be capable of changing the air not less than 10 times per hour for a fully enclosed deck in which a single container is stowed, but a higher change rate will be required in other circumstances.

3.6 It is recommended that there is more than one ventilation fan serving each enclosed or partially enclosed deck. Sufficient spare parts for repair of fans in the event of mechanical or electrical breakdown should be carried on the vessel.

3.7 A combination of high temperature and high relative humidity within a livestock container can cause distress or even death. As a guide conditions are likely to be safe until such time as the following combinations are reached:-

Temperature (° C) 24 26 28 31 35

Humidity (% Rh) 100 75 50 25 0

3.8 It is recommended that one or more thermometers, as appropriate to the size of the container, are provided and read at regular intervals.

**4 Floor strength, drainage and anti-slip properties**

4.1 Strength of the floor must be appropriate for the size, weight and number of animals to be carried (Ch .II, 1.4).

4.2 Container floors should be fitted with drainage to ensure that the animals do not stand or lie in accumulated liquid.

4.3 Where there is more than one floor of animals within a container or where containers are placed one on top of another the drainage system must be designed to minimise leakage of urine and faeces onto animals accommodated below (Ch. II, 1.1(h)).

4.4 The floor surface of every pen and stall must provide the animals with adequate grip, so that they do not slip (Ch. II, 1.1(g)).

**5 Design and Construction of pens, stalls and partitions within the container**

5.1 Each pen or stall within the container must be of a suitable size to accommodate the animals to be carried, and to enable them to stand in a natural position with sufficient space above them for adequate circulation of air (Ch .II, 1.2).

5.2 Pens and stalls should, so far as possible, be 4-sided rectangular enclosures.

5.3 Strength of pen and stall sides, and any partitions must be appropriate for the size, weight and number of animals to be carried. Their construction may be of any material which is suitable for the purpose. Their fittings must be designed for quick and easy operation (Ch .II, 1.4).

5.4 Where rails are used their spacing must be appropriate for the species and size of animal to be carried. In particular it must be such that animals cannot escape, or their heads or limbs become trapped.

5.5 Young animals may require protection from cold drafts when accommodated in pens or stalls formed of railings.

5.6 It is recommended that stalls for horses and ponies are positioned so that the animals stand facing across the vessel, and they should be constructed with solid boundaries.

5.7 Solid sides may be necessary to prevent aggression between different groups of pigs.

**6 Dimensions of pens and stalls for farm animals**

6.1 The dimensions of pens and stalls must be appropriate for the species, size, and number of animals to be transported in them, but the Regulation does not specify dimensions. The area of a pen should not exceed 15m². Standard sea containers are, internally, approximately 2.3m wide, either 5.9m or 12.0m long and 2.4m high.

6.2 A pen or stall should have boundaries which are of sufficient height for the size and species of animal being carried, and not less than:

* 1.2 m high for adult cattle;
* 0.9 m high for young calves, sheep, goats, and pigs.

6.3 The clear height within any pen or stall must be sufficient for the animals to stand in a natural position, and with adequate space above them for the free movement of ventilating air. Recommended minimum clear heights are:

* 2.15 m for adult cattle;
* 1.50 m for young calves;
* 1.25 m for sheep, pigs, and goats.

6.4 When goats are carried it may be necessary to provide the pen or stall with a ‘roof’ to prevent the animals escaping.

**7 Dimensions of stalls and ‘loose boxes’ for horses and ponies.**

7.1 Each horse or pony (with the exception of a mare with her foal which may be together) must be carried in an individual stall or ‘loose box’ of appropriate size (Chap. IV, 1.6). The animal must be able to stand in a natural position, and with adequate space above it for the free movement of ventilating air. The horse or pony should either be constrained in a stall so that it cannot turn around, or be in a ‘loose box’ with adequate space to turn around and lie down.

7.2 The following dimensions for a horse stall are given as a guide only:

* length 2.1m - 2.5 m (breast rail to rear);
* width 0.7m - 0.8 m;
* height within stall 2,15 m;
* height of breast rail 1.15 m;
* height of side partitions 1.20 m;
* height of rear partition 1.50 m.

7.3 Standard sea containers are, internally, approximately 2.3m wide, either 5.9m or 12.0m long, and 2.4m high. A 6m (20 foot) container could be fitted with up to 6 stalls for average sized polo ponies.

**8 Lighting and electrical fittings**

8.1 Appropriate lighting must be provided during loading and unloading of the animals (Ch. III, 1.6).

8.2 There must be sufficient light, which may be natural or artificial, within the container when necessary for inspection and care of the animals (Ch. II, 1.1(i)), and for the needs of the animals.

8.3 Electrical fittings and wiring should be positioned or protected to prevent injury to the animals.

**9 Fresh water and feeding systems and equipment**

9.1 There must be a suitable method of supplying fresh drinking water to the animal container whenever necessary (Ch. III, 2.7. A hose which can be connected to the ship’s supply is sufficient.

9.2 Sufficient portable drinking troughs, buckets or fixed water bowls must be provided so that all animals may have access to fresh water whenever necessary (Ch. VI, 2.1). Troughs, buckets and bowls must be suitable, and fitted at an appropriate height, for the animals being carried (Ch. VI, 2.2).

9.3 Before sailing the vessel must have on board sufficient potable water for the voyage, or an adequate means of distillation, so that the fresh water requirements set out in Appendix 2, point 5 can be complied with (Ch. IV, Section 2).

9.4 There must be a suitable means of providing feed to the animals appropriate to the species, including sufficient feeding utensils or other equipment when necessary. Such equipment must be designed to be capable of being secured in place, at an appropriate height, to prevent overturning when in use (Ch. VI, 1.4 &1.5). It is acceptable to ‘floor-feed’ where appropriate, provided that contamination by urine and dung is minimised.

9.6 Before sailing the vessel must have on board sufficient feed, appropriate for the species, for the voyage so that the feeding requirements set out in Appendix 2, point 5 can be complied with (Ch. IV, Section 2). Supplies of feed must be protected from the weather and contamination (Ch. VI, 1.3).

**10 Cleansing and disinfection**

10.1 Parts of the vessel and the container and its equipment which are used for animals must be capable of being effectively cleaned and disinfected (Ch. II, 1.1(c)).

***Appendix 2***

**OPERATION**

**1 General**

1.1 The vessel must be operated so as to avoid injury and suffering and ensure the safety of the animals (Ch .II, 1.1(a)).

1.2 The animals must be fit for the intended journey (Ch. I, 1) See section 2.3 of Part 1 of this guidance for detailed advice about animal fitness for transport.

**2 Loading and unloading animals**

2.1 Animals will normally be loaded into and unloaded from the container either at the places of origin and destination or on the dockside. But animals could be transferred into and out of the container whilst it is on the vessel, in which case an appropriate method must be used for moving animals on and off the vessel (Ch. III, 1.3(a)).

2.2 Loading and unloading of a container with animals inside must be performed with care to ensure that the container remains stable and essentially level, and to avoid the container swaying or being knocked excessively (Ch. II, 5.2 & Ch. III, 1.3(a)).

2.3 Where a livestock ramp is necessary it must comply with the following criteria (Ch. III, 1.4(a)).

Maximum angle of ramp when in use:

* 20 degrees – for horses, pigs and calves (cattle under 6 months of age);
* 26 degrees 34 minutes – for sheep and cattle (other than calves).
* Foot battens, or similar anti-slip means, must be fitted to the ramp if its slope exceeds 10 degrees. It is recommended that foot battens are not less than 50 mm high and 25 mm wide, and spaced with centres between 25 cm and 30 cm apart.

2.4 Ramps must be fitted with side barriers (lateral protection) to prevent animals escaping (Ch. III, 1.3(a)). It is recommended that these should be of solid construction with a minimum height of 1.25 m for cattle and horses and 0.75 m for sheep, pigs and goats.

2.5 It is recommended that the width of the ramp should be not less than 0.90 m and not more than 1.10 m for cattle and horses, and not less than 0.55 m for sheep, pigs and goats.

2.6 Portable barriers of a suitable strength, design and height may be necessary to ensure the safe movement of animals into and out of a container, on land or on the vessel.

2.7 If animals are moved onto or off the vessel by lifting platform or loading box this must have safety barriers to prevent animals falling or escaping (Ch. III, 1.4(b)), and be handled with care as mentioned in 2.2 above.

**3 Weather conditions and ambient temperature**

3.1 Animals must not be shipped when the effects of weather conditions anticipated for the voyage are likely to cause them injury or suffering (Ch.II, 1.1(b)).

3.2 Many factors will need to be considered by the master of the vessel when making a judgement about the suitability of weather conditions for the voyage. These include:

* the species, size and age of the animals;
* the design and stowage position of the container;
* the sea-keeping qualities of the vessel, including whether or not it is stabilized;
* the actual and forecast wind direction and strength, and state of the sea;
* the course to be followed by the vessel, and what action might be taken to mitigate the effects of adverse weather encountered during the voyage.

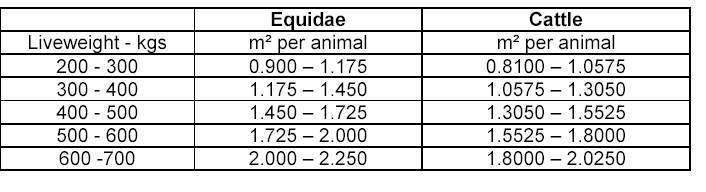
3.3 Ambient temperature is also a factor which needs to be considered because this may result in conditions during the voyage which are unsuitable for some animals. (See Appendix 1 point 3.7)

3.4 If loading of animals is likely to be delayed on account of anticipated weather conditions (or for any other reason), the shipper or agent should be advised as early as possible. This will enable the animals to be held at the premises of origin, or another suitable place, and could avoid unnecessary loading and unloading of the animals and the stress which this might cause.

**4 Minimum space allowances (Stocking density)**

4.1 Correct stocking of the animals according to species and age is the prime responsibility of the shipper and the attendant, but the master must also be satisfied with the arrangements.

4.2 Minimum space allowances for horses and ponies (domestic equidae), cattle, sheep and goats, and pigs are set in the Regulation (Ch.VII), and are reproduced in the tables below.



4.3 Stocking animals according to predetermined space allowance figures does not necessarily result in the most appropriate loading density for the animals and the voyage in prospect. Adjustment may be needed based on the actual circumstances, experience, and visual observation.

**5 Journey times and water, feed and rest intervals**

5.1 Maximum journey times and intervals between watering feeding and resting animals are complex, and vary between species and age of animals. The shipper of the animals has an overall responsibility to ensure that these can be complied with.

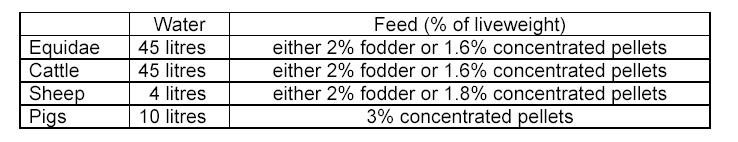
5.2 The master of the vessel and the attendant are responsible for ensuring that the animals are watered and fed within the permitted maximum intervals.

5.3 See section 2.5 – 2.7 of part 1 of this guidance for detailed advice about the requirements.

**6 Provision, supply and storage of water, feed and bedding**

6.1 Before departing the port where the animals are loaded the vessel must be provided with sufficient fresh water (or the means of distilling it) and sufficient feed appropriate for the animals being carried, and reserve supplies in case the animals are on the vessel for longer than planned (Ch. IV, Section 2).

6.2 Minimum daily quantities required for each animal are shown in the table.



**Notes**

* Water (for all species) may, instead of the volume shown, be equivalent to10% of liveweight to take account of the size of the animals. (1 kg = 1 litre)
* Feed may be an equivalent mix of fodder and pellets.
* Animals must be accustomed to the type of feed provided.

6.3 Bedding or an equivalent material suitable for the animals must be used in the pens and stalls to ensure the comfort of the animals and to absorb urine and faeces (Ch .VI, 1.2). Soiled bedding should be replaced when necessary.

6.4 Reserve supplies of water and feed and bedding must also be provided. These must be 25% of the total needed for the animals during the planned voyage, or 3 days extra supply – whichever is the greater quantity.

6.5 Supplies of water, feed and bedding must be stored so that they do not become contaminated and their quality does not deteriorate (Ch .VI, 1.3).

**7 Emergency treatment or slaughter of sick and injured animals**

7.1 The requirement concerning animals which fall ill or are injured during transport is that they must be separated from the other animals and receive first-aid treatment as soon as possible, be given appropriate veterinary treatment and if necessary undergo emergency slaughter or killing in a way which does not cause them unnecessary suffering (Ch. I, 4).

7.2 The circumstances of each case including the condition and species of the animal, and the time remaining until the vessel reaches port, should be considered when determining what action needs to be taken.

7.3 It is recommended that the master has a procedure to enable advice to be obtained from a veterinarian, and consults the attendant, about appropriate action to take.

7.4 Humane methods of emergency slaughter vary between species.

7.5 If safety regulations permit, a vessel carrying animals on a voyage which will exceed 3 hours must have a suitable means of emergency slaughter on board (Ch. II, 1.6). This should be made available, when needed, to a person competent in its use.

**8 Restrictions**

8.1 No more than 4 unbroken equidae may be together in a pen or stall (*Ch. III, 2.4).*

8.2 Unbroken horses must not be transported on a long journey (Ch. VI, 1.9).

8.3 The following may not be transported on a long journey unless accompanied by their mother (Ch. VI, 1.9):

* Unregistered horses and ponies of 4 months age or less;
* Calves of 14 days age or less;
* Pigs of 10 kgs weight or less.

8.4 Equidae, except a mare with her foal, must be in individual stalls when transported on a long journey (Ch. VI, 1.6).

8.5 No goods may be stowed where they could cause injury, distress or suffering to the animals (Ch. III, 1.5).