



STATUTORY INSTRUMENTS.

**S.I. No. 580 of 2007**

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DISEASES OF ANIMALS (ANIMAL TRANSPORT) (ROLL-ON  
ROLL-OFF VESSELS) ORDER 2007

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ROLL-OFF VESSELS) ORDER 2007

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S.I. No. 580 of 2007

DISEASES OF ANIMALS (ANIMAL TRANSPORT) (ROLL-ON  
ROLL-OFF VESSELS) ORDER 2007

I, MARY COUGHLAN, Minister for Agriculture and Food in exercise of the powers conferred on me by sections 3, 28 and 29 of the Diseases of Animals Act 1966 (No. 6 of 1966) as amended by the Diseases of Animals (Amendment) Act 2001 (No. 3 of 2001) as adapted by the Agriculture, Food and Rural Development (Alteration of Name of Department and Title of Minister) Order 2002 (S.I. No. 306 of 2002), hereby order as follows—

*Citation.*

1. This Order may be cited as the Diseases of Animals (Animal Transport) (Roll-on Roll-off vessels) Order 2007.

*Interpretation.*

2. (1) In this Order—

“animal” means an animal of the bovine, ovine, equine, caprine or porcine species;

“animal transport vehicle” means a vehicle in which an animal is loaded that is approved under the European Communities (Animal Transport and Control Post) Regulations 2006 (S.I. No. 675 of 2006) and includes a trailer or other container used in conjunction with the vehicle;

“approved disinfectant” means a disinfectant approved in accordance with the Diseases of Animals (Disinfectants) Order 1975 (S.I. No. 273 of 1975) as amended by the Diseases of Animals (Disinfectants) Order 1975 (Amendment) Order 1978 (S.I. No. 345 of 1978);

“authorised officer” has the same meaning as in section 17A (inserted by section 2 of the Diseases of Animals (Amendment) Act 2001 (No. 3 of 2001)) of the Diseases of Animals Act 1966 (No. 6 of 1966);

“Classification certificate” means a certificate issued by a classification society which is a member of the International Association of Classification Societies;

“International Convention certificates” means certificates issued under the terms of any of the following international conventions: SOLAS Convention 1974/1978, International Convention on Load lines 1966 and the MARPOL Convention 1973/1978 and any subsequent amendments thereto;

“I.O.P.P.” means International Oil Pollution Prevention Certificate;

“MARPOL Convention” means the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol thereto, 1978;

*Notice of the making of this Statutory Instrument was published in  
“Iris Oifigiúil” of 17th August, 2007.*

“master” includes a person having charge or command of a vessel, other than a pilot;

“Minister” means Minister for Agriculture and Food;

“port” includes any place in the State from where a vessel may depart;

“SOLAS Convention” means the Safety of Life at Sea Convention 1974 and 1978 as amended;

“vessel” means a sea-going vessel with facilities to enable road vehicles to roll-on and roll-off.

*General Provisions and Exemptions.*

3. (1) This Order applies to a roll-on roll-off vessel that is to be used for the transport of an animal transport vehicle with an animal on board and to such animal transport vehicles carried on board a vessel from the State to the extent that the European Communities (Animal Transport and Control Post) Regulations 2006 (S.I. No. 675 of 2006) do not apply to the vessel.

(2) This Order does not apply to a vessel arriving in the State carrying an animal transport vehicle from outside the State for discharge in the State or outside the State.

(3) This Order does not purport to create a criminal jurisdiction in relation to actions committed wholly outside the criminal jurisdiction of the State.

(4) Notwithstanding paragraph (3), if, whether within or outside the criminal jurisdiction of the State, a person fails to comply with this Order, the Minister may have regard to failure in relation to the granting, revocation or suspension of the approval of a vessel. However, if a person would, in complying with this Order contravene the criminal legislation of the State in which the failure occurred (proof of which shall lie on him or her), this paragraph does not apply.

*General Requirements.*

4. (1) A person shall not load on to, or cause or permit the carriage of an animal transport vehicle by sea from the State on board a vessel, if in the opinion of the Minister, having regard to the information contained in the Checklist referred to in paragraph (2) or otherwise, the proper carriage of the animal transport vehicle and the welfare of the animal is not sufficiently provided for.

(2) The master of a vessel shall ensure that the Checklist for Animal Transportation in accordance with Schedule 1 has been completed and made available, to an authorised officer, prior to the departure of the vessel from the State with an animal transport vehicle on board.

(3) The provisions of paragraph (2) do not apply when an equine animal or a limited number of animals of other species, as may be decided by the Minister, are being transported in an animal transport vehicle.

*Vessel Approval.*

5. (1) A person shall not load on to or cause or permit the carriage of an animal transport vehicle on board a vessel, or cause or permit an animal transport vehicle to be loaded or carried on a vessel, unless the vessel has been approved by the Minister ('roll-on roll-off vessel approval').

(2) A person applying for a roll-on roll-off vessel approval shall submit to the Minister two copies of an Animal Vessel Plan in the format laid down in Schedule 2 and any other information as he or she may reasonably require.

(3) The provisions of paragraph (2) do not apply when an equine animal or a limited number of animals of other species, as may be decided by the Minister, are being transported in an animal transport vehicle.

(4) The Minister may following an inspection or otherwise grant a roll-on roll-off vessel approval, attach conditions to the approval, vary or revoke a condition, suspend or revoke the approval or refuse an application.

(5) The Minister shall not consider an application for a roll-on roll-off vessel approval unless the application contains all the material and particulars sought by the Minister and is accompanied by the fee (if any) set in accordance with Article 7.

(6) Notwithstanding paragraph (5) the Minister shall not consider an application for a roll-on roll-off vessel approval if a valid classification certificate and current certificates specified in the Animal Vessel Plan in Schedule 2 are not available at the time of the application.

(7) If the Minister grants a roll-on roll-off vessel approval he or she shall issue to the holder of the approval a notification in which he or she shall specify—

(a) the period for which approval is granted,

(b) the conditions under which approval is granted, and

(c) for a vessel with a roll period of less than 15 seconds, the sea route on which the vessel may transport an animal transport vehicle from the State.

(8) Notwithstanding paragraph (7)(c) a movement prohibition may be applied to a vessel leaving the State with an animal transport vehicle on board where the prevailing or forecasted winds for the duration of the intended voyage exceeds a Beaufort wind force that may, in the opinion of the Minister, cause injury or unnecessary suffering to the animal.

(9) A person to whom a roll-on roll-off vessel approval has been granted shall make such returns to the Minister as he or she may require.

(10) Without prejudice to the generality of paragraph (4), the Minister may refuse an application for a roll-on roll-off vessel approval or suspend or revoke an approval if, in his or her opinion—

- (a) the applicant or person to whom a roll-on roll-off vessel approval is granted has been convicted of, or has committed an offence, whether he or she has been convicted or not, under the Diseases of Animals Act 1966 (No. 6 of 1966) or Regulations made under the European Communities Act 1972 that relate to animal transport or animal welfare,
  - (b) the applicant or person to whom the roll-on roll-off vessel approval had been granted has failed to comply with a condition of the roll-on roll-off vessel approval,
  - (c) information required has not been furnished or information that is false or misleading in a material respect has been furnished,
  - (d) the certificates referred to in paragraph (6) at the time of application, inspection or otherwise are not available and, or are not valid,
  - (e) the vessel does not comply with the requirements of Section 3(1) of Chapter II of Annex I of Council Regulation (EC) No 1/2005 on the protection of animals during transport and related operations<sup>1</sup>,
  - (f) the vessel does not comply with the requirements of this Order and as appropriate, Schedules 3 and 4,
  - (g) the vessel has, in the opinion of the Minister, ceased to carry out the activity to which the approval relates,
  - (h) the person to whom the roll-on roll-off vessel approval had been granted, ceases to carry out the activity to which the approval relates,
  - (i) the applicant or person to whom the roll-on roll-off vessel approval had been granted, having been given 14 days to do so, fails to pay a fee under Article 7,
  - (j) it is necessary for the protection of animal health or welfare or the environment including the prevention, control or eradication of a disease (within the meaning of the Diseases of Animals Act 1966 (No. 6 of 1966)), or
  - (k) it is necessary, ancillary or supplementary for an act of the institutions of the European Communities to have full effect.
- (11) Other than in the case of paragraph (10)(j) or (k), if the Minister proposes to refuse an application or to suspend or revoke a roll-on roll-off vessel approval, he or she shall—
- (a) notify the applicant or person to whom the roll-on roll-off vessel approval had been granted of the proposal and the reasons for the proposal, and that he or she may make representations in relation to the proposal to the Minister within 14 days of notification,

<sup>1</sup>O.J. No. L3 of 5.1.2005, p. 1.

- (b) consider a representation duly made before deciding whether to proceed with, modify or annul the proposal, and
- (c) notify the applicant or the person to whom the approval had been granted of the decision and the reasons for the decision.

(12) If the Minister is of the opinion that—

- (a) it is necessary for the protection of human health, animal health or welfare or the environment including the prevention, control or eradication of a disease (within the meaning of the Diseases of Animals Act 1966 (No. 6 of 1966)),
- (b) it is necessary, ancillary or supplementary for an act of the institutions of the European Communities to have full effect,

he or she may refuse an application or suspend or revoke a roll-on roll-off vessel approval in accordance with paragraph (13).

(13) If the Minister refuses an application or suspends or revokes a roll-on roll-off vessel approval in accordance with this paragraph, he or she shall—

- (a) notify the applicant or person to whom the roll-on roll-off vessel approval had been granted of the proposal and the reasons for the proposal, and that he or she may make representations in relation to the proposal to the Minister within 14 days of notification,
- (b) consider a representation made, and
- (c) confirm, modify or annul the decision and notify the applicant or person to whom the approval had been granted of the decision and the reasons for the decision.

(14) If the Minister suspends a roll-on roll-off vessel approval, the approval has no effect for the duration of the suspension.

(15) The Minister shall establish and maintain a list of roll-on roll-off vessel approvals which may be held by him or her in a form that is not legible if such form is capable of being converted into legible form.

(16) In this Article, “Minister” includes a person authorised in that behalf by the Minister to determine an application, grant, suspend or revoke a vessel approval.

*Inspection of a Vessel.*

6. (1) A person who applies for a roll-on roll-off vessel approval shall make the vessel available at a port specified by the Minister for inspection by such person as may be required by the Minister at a time to be agreed between the Minister and the person who applied for the roll-on roll-off vessel approval.

(2) An inspection under this Order may be cancelled if—

- (a) documentation requested to facilitate the evaluation of the vessel has not been furnished, or
- (b) a fee or charge payable under Article 7 has not been received, or
- (c) in the opinion of an inspector, the vessel is not properly cleansed and disinfected.

(3) As part of an inspection under this Order, the Minister may require an inspector to travel on board a vessel during a voyage for the purpose of assessing the performance and suitability of the vessel for the carriage of an animal transport vehicle.

(4) The applicant shall bear the cost of an inspection, including costs of the initial arrangements for inspection if the inspection did not take place because of cancellation or other default by the applicant or master or due to cancellation pursuant to paragraph (2).

(5) If an inspector is required to travel on board a vessel in accordance with paragraph (3), the applicant shall—

- (a) provide suitable accommodation for the inspector on board the vessel for the duration of the voyage, and
- (b) undertake to pay the costs of the inspection and expenses incurred by the inspector during the voyage and for the inspector's return to the State.

*Fees.*

7. (1) The Minister may set a charge or a fee in respect of an application or in connection with aspects of an inspection for a roll-on roll-off vessel approval.

(2) Moneys received by the Minister under this Article shall be paid into or disposed of for the benefit of the Exchequer in accordance with the directions of the Minister for Finance.

(3) The Public Offices Fees Act 1879 (42 & 43 Vict. Cap 58) does not apply to a fee charged pursuant to this Regulation.

*Publication.*

8. The Minister may publish, in a manner he or she considers appropriate, a list of roll-on roll-off vessel approvals.

*Saver.*

9. A person who immediately before 1 January 2007 was registered within the meaning of the European Communities (Protection of Animals during Transport) Regulations 2006 (S.I. No. 267 of 2006) is considered to be approved for the purpose of this Order and may be dealt with as if approved under Article 5.



SCHEDULE 1

CHECKLIST FOR ANIMAL TRANSPORTATION ON BOARD ROLL-ON ROLL-OFF VESSELS

**M/V:** ..... **Port:** .....

**CHECK LIST FOR ANIMAL TRANSPORTATION**

(To be completed for each voyage on which animals are carried)

	<b>Yes</b>	<b>No</b>
1. Is the ventilation in the garage and on the weather decks in working order and switched on?	<input type="checkbox"/> <input type="checkbox"/>	
2. Have the fire flaps been inspected and the times of the starting and stopping of the fans recorded?	<input type="checkbox"/> <input type="checkbox"/>	
3. Are the animals alive and in an apparent good health?	<input type="checkbox"/> <input type="checkbox"/>	
4. Are the animal transport vehicles located in the approved position?	<input type="checkbox"/> <input type="checkbox"/>	
5. Are all lashing chains well placed, well set-up and in sufficient number?	<input type="checkbox"/> <input type="checkbox"/>	
6. Is the sprinkler system ready for use?	<input type="checkbox"/> <input type="checkbox"/>	
7. Is the foam system completely isolated?	<input type="checkbox"/> <input type="checkbox"/>	
8. Has the crew been recently trained to handle the sprinkler system?	<input type="checkbox"/> <input type="checkbox"/>	
9. Has the crew been recently trained to handle the closing device for the garage ventilators and the emergency fan shut off?	<input type="checkbox"/> <input type="checkbox"/>	
10. Is a fresh water supply available in the animal areas?	<input type="checkbox"/> <input type="checkbox"/>	
11. Are stabilizers available as soon as the ship is in open sea?	<input type="checkbox"/> <input type="checkbox"/>	
12. Is the relevant information about weather conditions and forecast aboard before animal transport vehicles are loaded?	<input type="checkbox"/> <input type="checkbox"/>	
13. Has the deck been properly cleaned, with the specified disinfectant, after the last carriage of animals?	<input type="checkbox"/> <input type="checkbox"/>	
14. Have the latest up-to-date weather conditions been examined in detail and are they satisfactory for the carriage of animals? (To be attached to this document)	<input type="checkbox"/> <input type="checkbox"/>	
15. Have the stability calculations been completed before the sailing and do they comply with Irish Department of Agriculture requirements?	<input type="checkbox"/> <input type="checkbox"/>	
16. Are lashing points on trucks in good condition—	<input type="checkbox"/> <input type="checkbox"/>	

**Signed:** ..... **Master**

**Signed:** ..... **Chief Officer**

**Date:** ..... **Voyage No.**

SCHEDULE 2

DISEASES OF ANIMALS (ANIMAL TRANSPORT) (ROLL-ON ROLL-OFF VESSELS)  
ORDER 2007

**ANIMAL VESSEL PLAN**

**A. Details of Vessel**

1. Name of Vessel: .....IMO Nations Number: .....
  2. Previous Name(s) of Vessel: .....
  3. Port of Registry:..... Official Number: .....
  4. Place of Build: ..... Date: .....
  - Place of Conversion: ..... Date: .....
  6. Name of Classification Society: .....
  7. Class Status: .....
  8. Outstanding Items: .....
  9. Recommendations: .....
  10. Condition of Class: .....
  11. Name of Authority approving Stability Book: .....
- (An approved stability booklet should be kept on board in a language understandable to the master)
12. Gross Registered Tonnage: .....
  13. Net Registered Tonnage: .....
  14. Dimensions: Length Overall: .....
  - Length between Perpendiculars: .....
  - Moulded Breadth: .....
  - Moulded Depth: .....
  15. Summer Draft: .....
  16. Loaded Wind Draft: .....
  17. Speed: .....
  18. Name of Owner/Manager: .....

Certification:

- 19. Cargo Ship Safety Equipment — Date of Expiry: .....
- 20. Cargo Ship Safety Radio — Date of Expiry: .....
- 21. Cargo Ship Safety Construction — Date of Expiry: .....  
Date of Last Annual Survey: .....
- 22. International Load Line — Date of Expiry: .....  
Date of Last Annual Survey: .....
- 23. I.O.P.P. — Date of Expiry: .....  
Date of Last Annual Survey: .....
- 24. Name of Issuing Authority on behalf of the Flag State: .....
- 25. Cargo Securing Manual issuing authority: .....  
Date of issue: .....

**B. Ventilation**

- 1. Details Appear on Drawing No: .....
- 2. General Description: .....  
.....  
.....

Fans

Position	Manufacturer	Type/ Size	Cycles	Diameter	Speed	Air Velocity	Air Quantity Delivered	Reversible Yes/No	Variable Speed Yes/No

- 3. Tests carried out by (company name): .....Date: .....

4. Initial Testing Procedure:.....

.....

5. Date of Certificate of Air Changes (attach Original Certificate): .....

6. Spare Components on Board: .....

.....

.....

7. Failure Alarms (Description and Location): .....

.....

8. Back Up system: .....

.....

**C. Vessel's Generating Capacity**

1. Generators available for Vessel's Auxiliary and Domestic Services only:

Number	Type	kW	Consumption per day (full load)

2. Generators available for Vessel's Auxiliary, Domestic and livestock Services:

Number	Type	kW	Consumption per day (full load)

3. Generators available for livestock Services only:

Number	Type	kW	Consumption per day (full load)

4. Secondary source of Power:

Number	Type	kW	Consumption per Day (full load)	Fuel Tank Capacity	Location

5. Total Capacity of Fuel Tanks available for Generators (excluding Secondary Source of Power): .....

6. Total Capacity of Fuel Tanks available for Secondary Source of Power: ...

.....

7. Normal Maximum Load, Auxiliary and Domestic Services:

(a) at Sea: .....

(b) in Port: .....

8. Normal Load, livestock Services, continuous running:

(c) Ventilation: .....

(d) Lighting: .....

(e) Other: .....

9. Spares for Generators: .....

.....

10. Spares for Secondary Source of Power: .....

.....

**D. Drainage**

1. Details Appear on Drawing(s) No.: .....

2. General Description (including floor gradient, camber and sheer): .....

.....

3. Position and Capacity of Drain Wells: .....

.....

4. Number of Pumps: .....

5. Types of Pumps: .....

- 6. Location of Pumps: .....
- 7. Are all Pumps permanently connected to a Dedicated Drainage System? .
- 8. Capacity of each Pump: .....
- 9. Sewerage Retention Facilities: .....  
Capacity: .....
- 10. Are facilities adequate for intending trade of vessel and permanently isolated from animal transport vehicle decks and crew accommodation?  
(Yes/No): .....
- 11. Emergency Pump Arrangement: .....
- 12. Type of Alarm System: .....

**E. Fire Fighting Appliances (Animal Spaces Only)**

- 1. Details Appear on Drawing(s) No.: .....
- 2. Type of Hydrants and Hoses: .....
- 3. Type of fire extinguishers: .....
- 4. Type of Fixed Fire-Fighting Installation:  
(a) in Enclosed Vehicle decks: .....

**F. Water**

- 1. Details Appear on Drawing(s) No: .....
- 2. Tank Location (by frame No.) and Capacities: .....  
.....  
.....
- 3. Total: .....
- 4. Details of (a) Portable Pump or (b) fixed Pump, located outside the space occupied by the primary source of power and powered by the secondary source of power (if required in accordance with paragraph 40 of the First Schedule):  
.....
- 5. Fresh Water Generation — Type .....  
— Capacity .....

- 6. Fresh Water Pumps — Type .....
- Capacity .....
- 7. Emergency Fresh Water Pumps — Type .....
- Capacity .....
- Location .....
- 8. Position of fresh water connections on vehicle decks: .....
- .....

**G. Lighting**

- 1. Type of Lighting in Passageways: .....
- 2. Level of Illumination: .....
- 3. Type of Lighting in vehicle decks: .....
- 4. Level of Illumination at Floor Level (if fixed): .....
- 5. Type of Emergency Lighting: .....
- 6. Level of Illumination: ..... Automatic switchover (yes/no): .....
- 7. Duration of Blackout Period: .....
- 8. Type of vehicle deck Light Failure Alarm: .....

(Note: “Level of illumination” means illumination in the horizontal plane measured at a height of one metre above the walking surface. Minimum and maximum levels are to be included).

## SCHEDULE 3

## SPECIFICATIONS AND EQUIPMENT FOR VESSELS

## CHAPTER I

## Stability Requirements

1. The stability requirements of a vessel to be met throughout a voyage, taking into account the effect of wind and waves, shall be as follows:
  - (a) the area under the righting lever curve shall be not less than 3.15 metre-degrees (0.055 metre-radians) up to 30 degrees angle of heel and not less than 5.16 metre-degrees (0.09 metre-radians) up to 40 degrees angle of heel, or the angle of flooding if this angle is less than 40 degrees;
  - (b) the area under the righting lever curve between the angles of heel of 30 degrees and 40 degrees, or between 30 degrees and the angle of flooding if this angle is less than 40 degrees, shall be not less than 1.72 metre-degrees (0.03 metre-radians);
  - (c) the righting lever shall be not less than 0.20 metre at an angle of heel equal to, or greater than 30 degrees;
  - (d) the maximum righting lever shall occur at an angle of heel not less than 25 degrees;
  - (e) the initial metacentric height shall be not less than 0.15 metre;
  - (f) the area under the righting lever, curve up to 40 degrees or the angle of flooding, whichever is less, in excess of the area under the heeling lever curve to the same limiting angle, shall be not less than 1.03 metre-degrees (0.018 metre-radians) plus 20 per cent of the area of the righting lever curve to the same limiting angle;
  - (g) the angle of heel due to wind shall be not more than 10 degrees.
2. For the purposes of paragraph 1—
  - (a) the heeling curve is that curve taking into account the effects of wind and waves;
  - (b) the angle of flooding is that angle of heel at which openings in the hull, superstructures or deckhouses, that cannot be closed watertight, immerse. Small openings through which progressive flooding cannot take place may be ignored in determining the angle of flooding.
3. Where the vessel is carrying other cargo in addition to an animal transport vehicle, the stability requirements for the carriage of such cargo shall be taken into account in addition to the criteria specified in paragraph 1.



## CHAPTER II

### Fittings — General Requirements

4. A vessel shall have fittings, which are sufficiently durable to protect an animal from injury and exposure to weather and sea.

5. All fittings, fixtures and objects in a vessel that are likely to come into contact with an animal shall be so manufactured, assembled or positioned to prevent injury to an animal.

6. All constructions and fittings in decks where an animal transport vehicle is stowed shall be of metal or other impermeable material such as may be readily cleansed and disinfected; timber and timber products shall not be considered suitable materials except where such timber or timber products are—

- (i) so treated that their surface is impermeable;
- (ii) so situated that they are unlikely to be damaged either by an animal or any other cause.

7. Where the casing, tanktop or bulkhead of an engine room, boiler room or heated fuel tank, forms a boundary or part of a boundary of a space in which an animal transport vehicle is stowed, that casing, tanktop or bulkhead shall be effectively insulated to minimise the conduction of heat.

## CHAPTER III

### Unenclosed Decks

8. The carriage of an animal transport vehicle on an unenclosed deck shall be permitted subject to the said deck being screened on the forward end and both sides by permanently fitted bulkheads, which provide 100 per cent protection from sea, spray and weather.

9. The freeboard of any unenclosed deck shall be such as to ensure that seas cannot encroach onto such deck.

## CHAPTER IV

### Ventilation

10. Subject to the provisions of paragraph 12, each enclosed space used for the carriage of an animal transport vehicle shall have a mechanical ventilation system which provides efficient air circulation in all parts of that space and which is of sufficient capacity to change the entire volume of air in that space—

- (i) where the minimum clear height in the space is 2.13 metres or less, at a rate of not less than 40 times every hour,

- (ii) where the minimum clear height in the space is 3.20 metres or more, at a rate of not less than 26 times every hour, and
- (iii) where the minimum clear height in the space is between 2.13 metres and 3.20 metres, at a rate proportional to those specified in subparagraphs (i) and (ii).

11. Subject to the provisions of paragraph 12, each unenclosed space used for the carriage of an animal transport vehicle shall have a mechanical ventilation system of sufficient capacity to change the entire volume of air in that space at a rate of 75 per cent of the rates specified in paragraph 10, where—

- (i) the minimum clear height in the space is 2.3 metres or less, or
- (ii) because of a partial enclosure of the space, the natural ventilation is restricted.

12. For the purposes of paragraphs 10 and 11, the total volume of the enclosed space shall include all the space contained between the vessel's side plating, bulkheads, tank top or decks enclosing the space, less the volume of any tank or trunk that is airtight within the space and no deduction shall be made in respect of the space occupied by an animal transport vehicle or other cargo.

13. Air intakes shall be so sited that air supplied to the vehicle decks is as clean and fresh as practicable and shall be effectively protected against blockage. Air exhaust outlets shall be sited as high as practicable and clear of accommodation structures.

14. The height of coamings for air intakes and exhausts above the freeboard deck shall be in accordance with the condition of assignment of load line required by the International Convention on Load lines 1966.

15. Spare parts including, from each type of fan, one set of bearings, one rotor or impeller and one complete motor, sufficient to facilitate the repair or replacement of fans or fan motors, shall be carried on board.

## **CHAPTER V**

### **Electrical Power Sources**

16. A vessel shall have two sources of power, a primary and a secondary source, each of which is sufficient to operate the mechanical ventilation systems independently.

17. The primary source of power shall be sufficient to supply continuous power for all parts of the voyage during which an animal is on board without interfering with the normal operation of the vessel.

18. The secondary source of power shall—

- (a) be located in a space, no boundary of which is contiguous to a boundary of any space containing the primary source of power;
  - (b) be maintained in good working order and be capable of being readily started;
  - (c) be capable of simultaneously operating the mechanical ventilation systems at full capacity, and providing fresh water and drainage to all decks in which an animal transport vehicle is carried, for a continuous period of three days; and
  - (d) in the event of fire or other hazard adversely affecting the operation of the primary source of power, remain capable of complying with the requirements of subparagraphs (b) and (c).
19. A fan system failure alarm shall be fitted at a manned control position.

## CHAPTER VI

### Lighting

20. A vessel shall be equipped with fixed lamps providing illumination of not less than 20 lux, in areas where an animal livestock vehicle is stowed, in the passageways between vehicles, and in the routes leading from those areas to the open deck.

21. A vessel shall be equipped with fixed or portable lamps providing illumination of not less than 110 lux, powered by the vessel's electrical system, in any deck where an animal transport vehicle is stowed, to facilitate the close inspection of an animal.

22. A vessel shall be equipped with an emergency lighting system on each enclosed deck where an animal livestock vehicle is stowed, which shall be automatically activated on the failure of the main electrical power sources of the vessel.

23. The emergency lighting system referred to in paragraph 22, shall provide a level of illumination of not less than 8 lux in passageways and access routes for a continuous period of not less than 15 minutes.

24. The lamps at paragraphs 20, 21 and 22 shall be waterproof, of sufficient strength to resist damage caused by whatever means

25. A lighting failure alarm shall be fitted at a control position.

**CHAPTER VII****Fire Fighting Appliances**

26. Fire hydrants shall be provided so that at least two jets of water from separate hydrants can be simultaneously directed to any part of an area or deck where an animal transport vehicle is located and so that one of these jets of water is provided by a single length of hose.

27. The fire hydrants referred to in paragraph 26 shall be connected to the fire main provided on the vessel.

28. A fire hose, together with the necessary connections and a nozzle capable of directing water in a form of a spray jet, shall be provided—

(a) in an enclosed space, for each hydrant referred to in paragraph 26, or

(b) in any other space or on a deck, for each 50 metres length, or part thereof, of space or deck.

29. Each fire hose referred to in paragraph 28, shall be capable of being connected to any hydrant and to any other hose, other than hydrants and hoses within the engine room or accommodation areas.

30. Each fire hose, with its connections and nozzle, referred to in subparagraph 28 (a) shall be kept in a conspicuous position near the hydrant with which it is intended to be used.

31. Each fire hose, with its connections and nozzle, referred to in subparagraph 28 (b) shall be kept in a conspicuous position close to the entrances or stairways leading to the said space or deck.

32. A fixed fire fighting installation utilising water only shall be provided in all enclosed decks where an animal transport vehicle is stowed. Where an inert gas or foam system is fitted additionally, means shall be provided to isolate same from all enclosed decks prior to the loading of an animal transport vehicle.

33. Where electrical equipment, other than lighting, is situated in an enclosed animal transport vehicle deck, an adequate number of portable compatible fire extinguishers, shall be provided in that space.

34. Where any substance of a flammable nature is used or carried on board, notices shall be prominently posted prohibiting smoking or the use of naked lights in a space in which any such substance is located.

35. A Vessel shall have a programme of inspection and testing of fire fighting equipment on decks where an animal transport vehicle is stowed, which is in accordance with SOLAS Convention regulations.

36. A spare charge in respect of each fire-extinguisher shall be carried on board.

## CHAPTER VIII

### Fresh Water Services

37. A vessel shall be equipped with a system that can supply fresh water to a minimum of two hose connections on each deck on which an animal transport vehicle is loaded.

38. Each freshwater connection shall be fitted with a hose of sufficient length to reach all animal transport vehicles on each deck.

39. A vessel shall be equipped with pumps, which are capable of continuously supplying fresh water to all animal transport vehicles for which such vessel has been approved to carry.

40. Where the said pumps are situated in a space occupied by the primary source of power of the vessel, or are powered by the primary source or power, either—

(a) a portable pump, or

(b) a fixed pump, located outside the space occupied by the primary source of power and powered by the secondary source of power, shall be provided and shall be capable of being used with not less than one fresh water tank on the vessel and such tank or tanks shall contain a quantity of water sufficient for the number of cattle on board for a minimum of three days.

## CHAPTER IX

### Maintenance

41. A vessel shall carry spare parts sufficient to facilitate the repair of faults in the power, lighting, ventilation and pumping equipment.

42. A vessel shall be subject to a planned inspection and maintenance programme for vehicle lashings, fittings and equipment and retain on board a record of maintenance, inspections and repairs.

## SCHEDULE 4

## STABILITY CRITERIA FOR VESSELS

**A. Effects of Wind and waves**

(1). The effect of wind should be taken into account in the following manner:

(a) The heeling lever due, to the effect of wind at 0° is to be given by:

$$\frac{PAH}{\text{Displacement}}$$

where:

- (i) P (wind pressure) is 0.05 tonnes/m<sup>2</sup>
- (ii) A is the lateral area of the vessel above the waterline in square metres; and
- (iii) H is the vertical distance between the centroid of the lateral area of the vessel above the waterline and the centroid of the vessel's underwater lateral area.

Note: For many vessels the vertical position of the centroid of the underwater lateral area may be taken at half the draft to the underside of the keel at amidships.

(b) The heeling lever due to the effect of wind at 40° is to be given by: 0.8 (heeling lever due to the effect of wind at 0°).

(c) The heeling lever curve is to be taken as a straight line joining the heeling lever at 0° and the heeling lever at 40°.

(2) The angle of roll to windward due to wave action is given by the following formula—

$$109 X_1 \times X_2 \sqrt{r} s$$

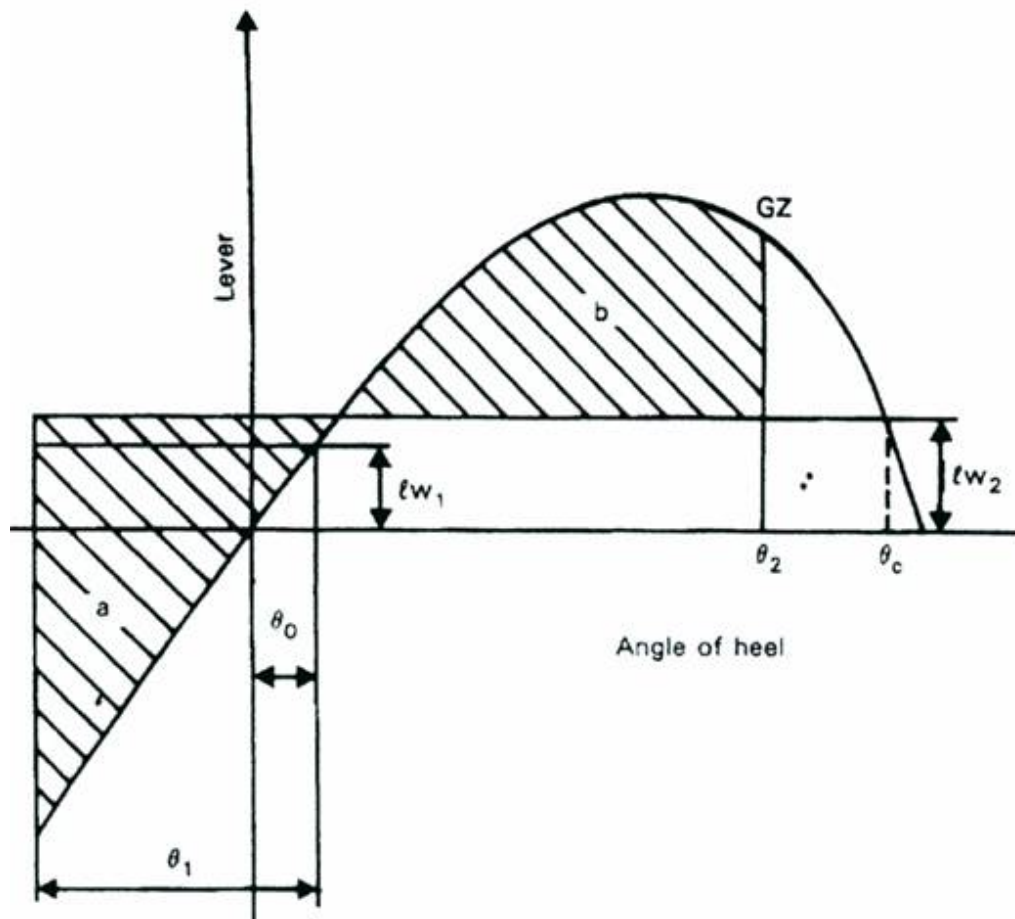
where

- (i)  $X_1$  Value taken from Table U2.1 in Stability Manual
- (ii)  $X_2$  Value taken from table U2.2 in Stability Manual
- (iii)  $k$  Value taken from table U2.3 in Stability Manual
- (iv)  $r$  Value from formula  $0.73 + 0.6 \text{ OG/draft}$

**OG** Distance between centre of gravity and waterline

- (v)  $s$  Value taken from table U2.4 in Stability Manual

### ILLUSTRATION OF STABILITY REQUIREMENTS



where:

- (i)  $lw_1$  is the heeling lever at  $0^\circ$  due to wind;
- (ii)  $lw_2$  is the heeling lever curve due to wind gust;
- (iii)  $\theta_0$  is the angle of heel due to wind.
- (iv)  $\theta_1$  is angle of roll to windward due to wave action.

#### B. Information to be Provided on Vessel

The following stability information should be provided on the vessel:

Wind effect:

The values of A and H will vary with the draft of the vessel. Values therefore are to be provided for the range of drafts that may occur in practice or alternatively the wind effect may be given in tabular or graphical form.

## Wave effect

Values for relevant drafts from Tables U2.1, U2.2, U2.3 and U2.4

**C. Method of Calculations**

1. The following method of calculation may be used to demonstrate compliance. (Other methods may be used).

## (a) Information required:

Lateral area of vessel above waterline	= A (from vessel's information)
Vertical separation of centroids	= H (from vessel's information)
Wind pressure	= P (0.05 tonnes/square metre)
Displacement	= D (from vessel's information)
GM	= GM (from vessel's information)
Moulded breadth	= B (from vessel's information)
Loaded draft	= d (from vessel's information)
Distance between CG and waterline	= OG (from vessel's information)

## (b) Calculation:

## (i) Wind:

$$\text{Heeling lever at } 0^\circ = \frac{0.05 \times A \times H}{D} = X$$

## (ii) Angle of heel due to wind:

$$\text{Angle of heel} = \frac{X}{GM} \times 57.3$$

## (iii) Roll period:

$$\frac{0.7B}{\sqrt{GM}}$$

## (iv) Wave:

$$\text{angle of roll to windward: } 109 X_1 \times X_2 \sqrt{r} s$$

2. In calculating the stability of the vessel, the use of fuel oil and fresh water throughout the voyage, the movement of ballast and the build up of waste material shall be taken into account.



3. Excessive acceleration forces must be minimised when animals in vehicles are on board by ensuring that the metacentre throughout the voyage is within an acceptable upper limit.



GIVEN under my Official Seal,  
9 August 2007

MARY COUGHLAN.  
Minister for Agriculture and Food.

EXPLANATORY NOTE

*(This note is not part of the Instrument and does not purport to be a legal interpretation.)*

This Order lays down requirements for the transport of animals on animal transport vehicles on board Roll-on Roll-off vessels. It provides for the inspection and approval of Roll-on Roll-off vessels, which comply with the provisions of the Order. The Order also provides for the Minister to exempt the carriage of a limited number of animal transport vehicles with a small number of animals loaded on board Roll-on Roll-off vessels from certain provisions of the Order.

BAILE ÁTHA CLIATH  
ARNA FHOILSIÚ AG OIFIG AN tSOLÁTHAIR  
Le ceannach díreach ón  
OIFIG DHÍOLTA FOILSEACHÁN RIALTAIS,  
TEACH SUN ALLIANCE, SRÁID THEACH LAIGHEAN, BAILE ÁTHA CLIATH 2  
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