

GOVERNMENT NOTICE

DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT

No.

2021

**INVITATION FOR PUBLIC TO COMMENT ON THE DRAFT GUIDELINES FOR THE
TRANSPORTATION OF LIVE ANIMALS BY SEA**

I, Dr Mphane Molefe, in my capacity as the Director of Veterinary Public Health and responsible for the animal welfare mandate in the Department of Agriculture, Land Reform and Rural Development intends to implement the attached guidelines for the transportation of live animals by sea.

Interested parties are invited to submit written comments on the guidelines by 30th April 2021 through the following email address:

Director: Veterinary Public Health

email: VPH@Dalrrd.gov.za

Tel: +27 12 319 7502

A handwritten signature in black ink, appearing to be 'M Molefe', written over a horizontal line.

Dr Mphane Molefe

Director: Veterinary Public Health

Date: 31 March 2021



agriculture, land reform & rural development

Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA

GUIDELINES FOR THE EXPORTATION OF LIVE ANIMALS BY SEA

Contents

1. DEFINITIONS
2. INTRODUCTION
3. PURPOSE
4. LEGISLATIVE FRAMEWORK
5. SCOPE OF APPLICATION
6. REQUIREMENTS FOR FACILITIES
7. PRE-JOURNEY PLANNING AND OPERATIONS
8. DAILY CARE AND MANAGEMENT OF ANIMALS ON BOARD
9. VETERINARY PROCEDURES
10. CONTINGENCY PLANNING FOR EMERGENCIES
11. RESPONSIBILITIES AND COMPETENCIES
12. INDEPENDENT MONITOR
13. DOCUMENTATION REQUIRED
14. REQUIREMENTS FOR THE MINIMUM SPACE AREA ACCORDING TO SPECIES
15. REFERENCES

.....
Dr Mphane Molefe
Director: Veterinary Public Health

Date:.....

1. DEFINITIONS

<i>Animals</i>	for the purpose of these guidelines, animal refers to sheep, goats, cattle and buffalos.
<i>Animal handler</i>	means a competent and trained (in handling and caring for animals humanely) person capable of looking after animals.
<i>Exporter</i>	means any person who exports a live animal in accordance with the provisions of this document. The exporter is regarded as the owner of the animal to be exported.
<i>Lairages</i>	means pens, yards and other holding areas for animals.
<i>Master of the ship</i>	means the commander of a ship; a captain.
<i>Monitoring</i>	means the intermittent performance and analysis of routine measurements and observations, aimed at detecting changes in the environment or health status of a population.
<i>Physiological weakness</i>	means any weakness that is not caused by an injury or disease.
<i>Pre-journey period</i>	means the period during which animals are identified, assembled and prepared/conditioned with the purpose of loading them onto a vessel and transporting them.

2. INTRODUCTION

- 2.1. There is increasing awareness and recognition of animal welfare in the world. Disregard of animal welfare can lead to unnecessary and avoidable animal suffering in the form of diseases, injuries or poor condition. Diseased, injured or poorly conditioned animals, in turn, can result in impaired performance, poor quality and unsafe animal-based food products, with associated economic losses. Thus animal welfare has direct and indirect animal wellbeing, public health, food safety and economic implications.
- 2.2. When transporting live animals by sea, it is important to ensure and maintain a high standard of animal welfare. This responsibility is not only a legal obligation, but can also have economic consequences if not adhered to.
- 2.3. The following main parties are involved in the exportation of animals by sea:
 - a. Exporter
 - b. Importer
 - c. Owner(s) of animal
 - d. Shipping company and Master of the Ship
 - e. Animal handlers
 - f. Exporter appointed veterinarian(s) at holding facilities and Ship

These parties are all jointly and severally responsible and accountable for the general wellbeing and health of the animals in the preparation phase, the loading phase, the actual journey at sea and the offloading phase.

3. PURPOSE

- 3.1. To provide evidence-based animal welfare standards for transporting live animals by sea from South Africa.
- 3.2. To ensure that appropriate animal welfare standards are maintained during all associated processes.
- 3.3. To ensure that all parties involved in the transport of live animals by sea take full responsibility in ensuring that the standards as indicated in these guidelines and applicable legislation(s) are implemented and maintained throughout the export process, from the pre-journey period until during offloading at final destination.

4. LEGISLATIVE FRAMEWORK

- 4.1. These guidelines derive their mandate from section 2 of the Animals Protection Act, 1962 (Act No. 71 of 1962), which provides for offenses in respect of the ill-treatment of animals.
- 4.2. The World Organisation for Animal Health (OIE) Terrestrial Animal Health Code (Chapter 7.2), which provides the welfare guidelines for the transportation of live animals by sea.

5. SCOPE OF APPLICATION

- 5.1. These guidelines apply to sheep, goats, cattle and buffalos.
- 5.2. Transportation by sea encompasses the entire journey, from the point of origin (i.e. farm of origin) to the final destination in the importing country.

6. REQUIREMENTS FOR FACILITIES

6.1. General

- a. Transportation of animals requires careful planning; this is key to a successful outcome. This includes / involves reducing or avoiding any unnecessary stress or harm to the animals, such as injuries or abrupt physiological changes.
- b. The facilities to be used for the holding and transportation of the animals must comply with all provisions in these guidelines

6.2. The vessel to be used

- a. The vessels chosen for the journey should be designed, constructed and fitted in a manner that is appropriate for the species, size and weight of the animals to be transported.
- b. Fittings on the vessel should be smooth and free from sharp protrusions or loose objects that could cause injury.
- c. Floors should be non-slip, easy to clean and disinfect.
- d. Floors should have proper drainage to prevent urine, faeces and water build-up; provided that faecal material in the case of small ruminants may be left in the lairages to absorb moisture. The veterinarian in charge must continuously make decisions regarding this aspect during the journey.
- e. The design of the drainage system should allow for the efficient removal of waste materials without cross-contamination of lairages and risk of injury the animals.
- f. The vessel must have sufficient isolation facilities where sick or injured animals can be placed and treated while on board.
- g. Equipment must be available to move sick animals to the isolation facilities
- h. Equipment must be available to remove carcasses from lairages for disposal.
- i. The walkways must be free from distractions that may negatively affect the movement of the animals.
- j. Pens for each individual species must be designed in such a way that they do not trap animals' limbs or heads in between rails nor allow animals to climb over or under rails.
- k. Sufficient lighting should be available in all places as needed –
 - i. Uniform indirect light should be provided at approaches to sorting pens, chutes, loading ramps.
 - ii. Light intensity must be adequate for the specific operational area on the vessel.
 - iii. In case of failure of the main lighting system, back-up lighting should be activated immediately and automatically in areas where the animals are kept.
 - iv. Light fittings should be placed in such a way that they cannot be damaged by the animals and must be waterproof.

- v. Equipment such as portable lights or flashlights should be available for night inspections.
- l. Adequate ventilation is required to meet variations in the climate and the thermo-regulatory needs of specific animal species to be transported. The ventilation must be available when the vessel is stationary. A secondary power supply, capable of supplying power for at least 3 days, should be available in case of breakdowns. The following requirements must be met:
 - i. Ventilation during loading and the journey must be adequate to provide fresh air, and remove excessive heat, humidity and noxious fumes (such as ammonia, hydrogen sulphide, and carbon monoxide).
 - ii. Ventilation systems must be checked regularly (at least twice a day, during the day and night) to make sure they function adequately.
 - iii. If animals are loaded on to enclosed decks it is essential that the ventilation system runs continuously from loading to offloading.
 - iv. Suitable spare parts must be kept for the repair of mechanical ventilation systems when required.
 - v. A back-up power supply for the ventilation system must activate automatically if the main power supply fails.
 - vi. The air flow must be directed in such a way that it does not blow directly into the faces of the animals, but still be able to provide effective ventilation throughout all the pens.
- m. Lairages on exposed decks must be provided with adequate overhead protection from the weather, whilst allowing sufficient overhead clearance for animals.
- n. Lairages must be designed to enable each animal to be observed during regular checks to ensure their safety and good welfare.
- o. Automatic ambient temperature readers / thermo-loggers must be installed on all decks and systems must be in place for accessing these records.
- p. The sides of the lairages on exposed decks should be fitted with durable, waterproof covers that can be closed when necessary in the event of bad weather conditions and rolled up for ventilation.
- q. Animals must not be housed close to the engine room bulkhead, boiler room or heated fuel tanks which cause an undesirable rise in temperature.
- r. Feeding and watering facilities should be designed in such a manner as to permit adequate access by all animals in a pen to the feed and water appropriate to the species, size and weight of the animals in transport.
- s. The vessel must be equipped with all necessary firefighting equipment, which must be inspected and certified to be fully functional before each voyage is undertaken.
- t. Suitable bedding should be added to the flooring to assist with absorption of urine and faeces and provide a softer surface for the animals to lie on.
- u. Feed and bedding storage and loading practices must be designed to avoid moisture build up to minimize the risk of mould growth.

6.3. Holding facilities before loading

- a. Should allow for sufficient space to prevent overcrowding.
- b. Should have barriers which are designed to prevent animals from escaping and to prevent access by predators.
- c. Should allow for separation of animals according to species, age, size and sex.
- d. Should provide the animals with protection from the elements.
- e. Should have enough water and feed for the duration of the holding period.

- f. Should allow animals to move stress-free with handling and noise kept to a minimum.
- g. Should be easy to clean and disinfect.
- h. Should be maintained and designed to avoid injuries or harm to the animals.
- i. The lairages should have non-slip, permanent, solid floors with adequate drainage.
- j. Isolation facilities should be available for sick or injured animals and must not be adjacent to lairages with healthy animals.

6.4. Loading and offloading passageways

- a. The passageways / walkways must be free from distractions, dead ends or darkness. They must be designed to allow, encourage and ensure the safe and easy flow of movement of intended animal species.
- b. Side barriers must be designed to prevent animals from escaping and to prevent access by predators.
- c. Gates must be appropriately designed and positioned, with secure latches.
- d. They should allow for sorting of animals by species, age, size and sex.
- e. They should provide animals with protection from the elements.
- f. Passageways should have easy-to-clean, non-slippery, permanent, solid floors with adequate drainage system.

7. PRE-JOURNEY PLANNING AND OPERATIONS

7.1. General

- a. Transporting animals by sea to the Middle East or any other country or through a passage or region which experiences very high summer temperatures will not be allowed between May and August.
- b. Specific diet as used on the vessel should be used to condition / accustom the animals during the pre-loading time prior to the voyage.
- c. Animals must be given time to get accustomed to feeding or water provision methods used during the voyage during the pre-journey waiting period.
- d. All persons involved in the handling of animals from the holding facilities until dispatch at the country of destination must be trained on the handling and welfare of animals, either inherent through their professional qualification(s) or through a training programme approved by the on-board veterinarian. The South African competent authority may review, or stipulate the details and content of the training programme if deemed necessary.

7.2. Minimum equipment and medication inventory:

- a. Equipment needed for various operations on board must be readily available and be easily accessible for use when needed.
- b. Equipment for veterinary care and post mortems must be available and accessible when needed.
- c. A captive bolt with sufficient cartridges, suitable to the species of animal on the vessel must be available. A stand-by captive bolt must be available in case the

- one captive bolt malfunctions. Suitably trained on-board veterinarian(s) or animal handlers should use the captive bolt to humanely put down any animal(s) which according to the on-board veterinarian, require to be put down for welfare reasons.
- d. On-board veterinary medicines must be stored in restricted-access locations under the control of the on-board veterinarian or Master of the Ship.
 - e. An inventory of all the scheduled medicines must be kept.
 - f. Carcass handling and storage equipment must be provided on board for use when needed. Carcass disposal must be described through a Standard Operational Procedure (SOP) in line with applicable international and local legislations, and approved by the on-board veterinarian.

7.3. Feed and water stocking

- a. Adequate amounts of feed and fresh water must be stocked for the voyage for all the animals being transported, with a reserve for at least 5 days for unforeseen circumstances. If the ship does not have sufficient fresh water storage capacity, it must have an adequate desalination system.
- b. Feed must be kept as fresh, dry and mould-free in a separate area dedicated for this purpose. Spoilt or contaminated feed should be detected and discarded in a suitable manner.
- c. Water hoses must be checked before departure and recorded that they are in working condition.
- d. Feed and water supply systems must be checked on a regular basis during the day and night to ensure they are functional.
- e. Where automated systems are used, back-up plans must be available in case of a malfunction of the automatic feeding or watering systems.

7.4. Selection of animals at farm of origin and during loading

- a. The health statuses and records of the animals must be accessible prior to introduction into the holding facilities.
- b. Animals must be sorted into appropriate compatible groups based on species, horned or de-horned, age, size and sex.
- c. Sheep with wool longer than 25mm need to be shorn at least 10 days before being loaded.
- d. Animals must be physically examined before being selected to determine if they are healthy, well-nourished and fit for transportation.
- e. Animals must be in healthy condition which includes but not limited to:
 - i. Bright, alert and responsive;
 - ii. A shiny and dry coat;
 - iii. Body condition score between 2 and 4;
 - iv. Eating and drinking well;
 - v. Walking comfortably with a straight back, distributing weight evenly on all four limbs and showing no signs of pain (not limping or favouring one limb over the others);
 - vi. Showing no ocular abnormalities that may affect the welfare of the animals;
 - vii. Not showing any signs of fever;
 - viii. No coughing or excessive sneezing, but breathing normally (no panting or breathing with open mouth). Expected normal respiratory rates are:
 - Sheep/goats: between 15-30 breaths/min;

- Cattle: between 25-40 breaths/min;
 - ix. No visible evidence of parasites;
 - x. Not exhibiting any nervous signs.
- f. Animals under the following classification must not be loaded:
- i. younger than four months or above 8 years of age;
 - ii. excitable or aggressive animals;
 - iii. known pregnant animals or heavy lactation, dam and offspring;
 - iv. animals with unhealed wounds from recent treatment procedures or injuries;
 - v. those with diarrhoea.
- g. Animals' vaccination programmes should be up to date and in accordance with the importing country's requirements.
- h. No animals must be sourced from foot and mouth disease positive areas, or a controlled disease area in contravention of the requirements of the importing country.

7.5. Loading and transportation between farm or origin, holding facilities and the vessel.

- a. The distance /_duration of the journey and description of the route taken should be planned and provided before the start of the journey.
- b. Vehicles and containers used for the transport of animals from farm(s) of origin to port holding facilities should be designed, constructed and fitted as appropriate for the species, size and weight of the animals to be transported.
- c. Vehicles and containers should be designed with features to protect animals from adverse weather conditions and to minimise the opportunity for animals to escape.
- d. Loading should be carefully planned as it has potential to cause poor welfare in transported animals.
- e. Loading densities for vehicles and containers should be calculated according to available floor space and animals to avoid overcrowding or sparse-loading.
- f. Loading and offloading of animals must be conducted in a humane manner (quietly and without unnecessary noise, harassment or force) by trained personnel and assistants.
- g. Vehicles must have secure smooth fittings free from sharp protrusions to avoid injuries of animals. The drivers and animal handlers' responsibilities to avoid animal injuries while carrying out their duties should be emphasized.
- h. Vehicles and containers should be designed to permit thorough cleaning and disinfection, and the containment of faeces and urine during the journey to minimise the likelihood of the spread of infectious disease during transportation.
- i. Vehicles and containers should be maintained in good working condition.
- j. Vehicles and containers should have adequate ventilation to meet variations in climate and the thermo-regulatory needs of the animal species being transported. The ventilation system (natural or mechanical) should be effective when the vehicle is stationary, and the airflow should be adjustable.
- k. If feeding or watering while the vehicle is moving is required, adequate facilities on the vehicle should be available.
- l. Vehicles should be designed so that the faeces or urine from animals on upper levels do not soil animals on lower levels, nor their feed and water.
- m. Suitable bedding should be added to vehicle floors to assist absorption of urine and faeces, to minimise slipping by animals, and protect animals from hard flooring surfaces and adverse weather conditions.

- n. The trips between the holding facilities and the vessel should not take longer than 8 hours.
- o. Animals may only be transported from farm(s) of origin to the holding facilities under cover of a veterinary movement permit issued by a state veterinarian responsible for the area the animals were sourced from.
- p. Records of number and percentage of deaths or removals from the holding facility, and the reasons thereof, must be provided to the on-board veterinarian before loading of the animals onto the vessel is completed.

8. DAILY CARE AND MANAGEMENT OF ANIMALS ON BOARD

- 8.1. It is important to conduct adequate health and welfare inspections three times (using a checklist endorsed by the official exporting veterinarian) during a 24hour period on all the animals, while monitoring on a continual basis. The inspections must be increased whenever there are incidences that require for more frequent inspections, such as a rough sea passage or adverse weather.
- 8.2. Sick and injured animals must be reported to the on-board veterinarian for immediate medical and/_or surgical attention, and for immediate euthanasia.
- 8.3. The on-board veterinarian must inspect and monitor the animals at least once a day. The frequency must be increased in case there are events that require more frequent monitoring by a veterinarian, such as illnesses, and weather / environmental changes.
- 8.4. If any animal becomes severely ill or in the judgement of the on-board veterinarian, is exposed to undue suffering and needs immediate euthanasia, it must be destroyed immediately and humanely by the veterinarian or trained and competent stockman.
- 8.5. There must be adequate clean food and water at all times.
- 8.6. The on-board veterinarian, a representative of the animal handlers and master or first officer of the ship must meet daily to discuss the health and welfare of the animals and any corrective actions that may be required.
- 8.7. Lairages must be kept as dry as possible by renewing and / or supplementing bedding as needed.
- 8.8. Lairages must be cleaned as required while liquefied and / or semi-solid dung and old fodder in pens must be removed on a regular basis or as needed to prevent build-up of methane and ammonia gasses. The process must be performed as quietly and calmly as possible.
- 8.9. Pressurised water used must not cause injury, discomfort and / or pain to animals, but sufficient to clean effectively.
- 8.10. Hosepipes must be permanently attached at, or as close as possible to the lairages. Hosepipes must be long enough to easily reach all lairages.
- 8.11. Animal handlers must monitor the animals for bullying which prevent others accessing the feed and water.
- 8.12. Inspection of the animals must be conducted within 4-6 hours of departure.

- 8.13. Stocking densities of lairages must be checked and adjusted as required.
- 8.14. There must be Standard Operating Procedures (SOPs) for each animal care task conducted on the vessel. These should describe precise protocols for all the tasks and include who is responsible for each task and when. The SOPs should be updated continuously when there are changes in the set systems or deficiencies encountered.
- 8.15. Monitoring of the temperatures in the decks where animals are kept must be conducted at least once around noon.
- 8.16. Data loggers for recording temperature and humidity 24 hours a day must be kept and made available when required by the on-board veterinarian or competent authority.
- 8.17. A maximum ammonia concentration in all decks during loading, transportation and offloading may not exceed 25 ppm.

9. VETERINARY PROCEDURES

- 9.1. The holding facilities and vessel must be provided with the necessary medicines to take care of the animals until completion of the journey. The storage and usage of medicines must comply with the following requirements:
 - a. The expiry dates on all medicines on the vessel must be at least beyond 2 weeks of the expected arrival date at final destination;
 - b. All medicines must, where applicable, comply with the requirements of the Medicines and Related Substances Act, 1965 (Act No. 101 of 1965) as amended and/or the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947) as amended;
 - c. Access, usage and control of medicines must be in line with the applicable legislation;
 - d. All medicines and veterinary products must be used in accordance with recommendations from a veterinarian and in accordance with the manufacturer's instructions, including the observation of the withdrawal periods.
- 9.2. Sick and injured animals must be presented to the on-board veterinarian for attention.
- 9.3. Provision must be made on the vessel for:
 - a. handling emergencies, such as isolation / hospital pens and slaughter;
 - b. prompt segregation of sick or injured animals from other animals;
 - c. appropriate treatment or euthanasia of sick or injured animals. The decision on the fate of a sick and injured animal is solely decided by the on-board veterinarian and may not be overruled by the Master of the Ship; and
 - d. sufficient on-board personnel, including the veterinarian or trained animal handlers.

10. CONTINGENCY PLANNING FOR EMERGENCIES

- 10.1. Contingency plans and emergency response procedures that identify potential adverse events that could be encountered during the journey must be prepared and reviewed and signed off by the Master of the Ship prior to every shipment. These plans must be

reviewed and endorsed by the official export veterinarian before commencement of the journey.

10.2. The contingency plans should address, *inter alia*, the following possibilities:

- a. Mechanical breakdown at sea;
- b. Refusal of passage and / or entry of the vessel;
- c. Fire on board;
- d. On-board veterinarian and animal handlers becoming indisposed;
- e. Shortage of feed and water.

11. RESPONSIBILITIES AND COMPETENCIES

11.1. Exporter

- a. The exporter has the overall responsibility and accountability for the entire journey, regardless of whether a third party is subcontracted for certain aspects of the process.
- b. The responsibilities of the exporter extend from the planning of the journey, the implementation thereof until offloading at final destination.
- c. The exporter must provide the provincial veterinary authority where the exportation is to take place with a copy of a veterinary import permit from the veterinary authority of the importing country, and any other relevant information regarding the planned journey.
- d. The exporter must ensure that all processes comply with the requirements of the importing country and applicable local legislations.
- e. Ensure that the animals intended for the journey are in good condition and healthy to be able to travel the intended distances by sea.
- f. The exporter must ensure that the animals' health and welfare needs are attended to throughout the process.
- g. Ensure that the loading and offloading processes are carried out with the utmost care to avoid unnecessary stress and injuries to the animals.
- h. It is the responsibility of the exporter to provide all the required personnel, equipment, veterinary medicines and products, feed, water, etc.
- i. The exporter must provide suitable facilities for assembly, loading, unloading and holding of the animals at the start of the journey and also for emergency situations.
- j. Developing and keeping up-to-date contingency plans to address emergencies.
- k. Ensuring that animals are inspected regularly during the journey.
- l. Making sure that animal handlers have proper training and competency in handling of the specific animals.

11.2. Competent authority of the importing country

- a. Establish minimum requirements for animal health and welfare for animals to be imported into the country.
- b. Allow import procedures to be completed without unnecessary delays so that the welfare of animals is not compromised.
- c. Supervise the offloading process and ensure that it is conducted by competent animal handlers.

- d. In case of animal disease outbreak on board, make available suitable isolation facilities to allow the offloading of animals from a vessel and their secure holding, depending on the disease causing the outbreak.
- e. In the event that the animals are required to remain on the vessel, allow provisioning of the vessel with water and feed as necessary.

11.3. South African Central Competent Authority (Department of Agriculture, Land Reform and Rural Development)

- a. Setting of minimum standards for animal health and welfare for export animals.
- b. Negotiate the veterinary requirements for the exportation of animals with the central competent authority of the importing country.
- c. Monitor the implementation of the set guidelines / policies with regards to inspections, approving of facilities, vehicles and vessels and keeping all records.

11.4. Provincial Veterinary Authority

- a. Provide regulatory facilitation for the exportation of animals.
- b. Confirm that all requirements of the importing country have been complied with by the exporter and all other responsible parties.
- c. Inspect, register and / or approve facilities to be used for the exportation, where required.
- d. Confirm that the vessel used for the transportation of the animals meets the required standards.
- e. Issue a veterinary health certificate upon satisfaction that all the requirements for the exportation have been complied with.

11.5. Master of the Ship

- a. Ensure that the vessel and crew comply with the applicable maritime regulations.
- b. Assumes responsibility for the management and care of the animals from when loading begins until when off-loading is completed.

11.6. On-board veterinarians

- a. Each voyage of animals transported by sea must be accompanied by a veterinarian with at least 5 years of veterinary experience dealing with the type animals being transported.
- b. The veterinarian must be in possession of a veterinary qualification listed on the American Veterinary Medicine Association (AVMA) register of all veterinary qualifications recognised by the authorities within which they are offered.
- c. The veterinarian must be registered and in good standing in at least one country with a veterinary statutory body that controls the registration and conduct of veterinarians; provided that the South African competent authority may decide not to accept registration with a specific veterinary statutory body if deemed necessary.
- d. The veterinarian must be able to issue instructions directly to the animal handlers in relation to the care of the animals.
- e. The veterinarian is responsible for the following:
 - i. Provide care and treat the animals throughout the exportation process.
 - ii. Handle any veterinary medical emergency.

- iii. Euthanise animals.
- iv. Meet daily with the Master of the Ship or First Officer to share up-to-date information on animal health and welfare status and travel conditions.
- v. Prepare and submit an independent report to the provincial veterinary authority from which the animals were exported. The report must be submitted within one week after completion of the journey.
- vi. Perform post mortems if deemed necessary for animal diseases control either on the vessel, the importing and / or exporting countries.
- f. The veterinarian must remain with the animals until completion of the offloading at final destination.

11.7. Animal handlers

- a. The number of on-board animal handlers must be sufficient for the number of animals throughout the day for the duration of the voyage.
- b. Animal handlers must be trained in basic animal handling and animal welfare and records of the training must be kept.
- c. Provision must be made for animal handlers to monitor the animals at night and report to the Master of the Ship and / or veterinarian on issues that need attention.
- d. Animal handlers must humanely handle animals at all times during any part of the journey including the preparation and the offloading at the final destination.
- e. The animal handlers are responsible for the following:
 - i. Check the animals immediately before departure to ensure that they have been loaded in accordance with the load plan.
 - ii. Inspect each lairage at least three times a day or more frequently if necessary for normal behaviour, health and welfare, and the correct operation of ventilation, watering and feeding systems.
 - iii. Carry out any task necessary for the care of the animals, including provision of feed, water, removal of waste material, carcass disposal, etc.

12. INDEPENDENT MONITOR

- 12.1. Every export consignment of live animals by sea must be accompanied by an independent monitor who is either a veterinarian registered with the South African Veterinary Council (SAVC) or an animal scientist registered with the South African Council of Natural Scientific Professions (SACNASP).
- 12.2. The exporter must procure, at their own cost, the services of an independent monitor from the register of independent monitors to be kept and maintained by the South African Central Competent Authority.
- 12.3. The person indicated in 12.1 must have at least 5 years of experience working with the species of animals to be exported.
- 12.4. The independent monitor must monitor the care of the animals on board and the performance of the animals during the voyage.
- 12.5. The independent monitor will be held to ethical standards and honesty and any breaches will be reported by the Department to the applicable professional statutory body.
- 12.6. The independent monitor must submit a written report to the Central Competent Authority within one week after the final offloading at the destination country. The report must include the following, in addition to any other observation of importance:

- a. General appraisal on the care of the animals by the on-board crew.
 - b. Confirmation of the number of deaths of animals.
 - c. Any animal welfare non-compliances during the journey and at offloading.
 - d. Confirmation of the temperature and ammonia levels records.
 - e. Any observed deviations from the set standards and procedures that have an impact on animal health and welfare.
- 12.7. The independent monitor must have access to any part of the vessel that affects the care of the animals.
- 12.8. The Department reserves the right to have its own official to accompany the shipment until the final destination.

13. DOCUMENTATION REQUIRED

- 13.1. The correct documentation must be in order and available on file (i.e. veterinary certificates, export permits and vaccinations history).
- 13.2. The following records must be kept by the exporter and be made available for inspection to the veterinary authority of South Africa as and when required:
- a. Records of continuous recording of the environmental temperatures by an automated recording system at all levels/decks on the ship where animals are kept.
 - b. Records of continuous recording of the ammonia levels by using an ammonia gas meter at least twice a day. Additional automatic monitors must be fitted at fixed positions where they will trigger an alarm signal when ammonia levels rise above the stipulated limits.
 - c. Duration of the journey.
 - d. Number and type of animals loaded at port of exit (including breed, sex etc.).
 - e. Feed specification at the holding facilities and at sea.
 - f. SOP for feeding of the animals which must include the feeding intervals as well as the assigned responsibilities
 - g. Water quality monitoring records.
 - h. Loading and offloading plans and the expected duration.
 - i. Design drawing to indicate vessel layout with lairage sizes, location of ventilation chutes and location of water and feed troughs with specific parameters.
 - j. Qualification certificate of the on-board veterinarian and proof of registration with a veterinary statutory body.
 - k. List of veterinary medicines, products and equipment to be used on board.
 - l. Contingency plans for disease outbreak and adverse events during the journey.
 - m. Waste disposal plans and methods at sea in line with international maritime laws.
 - n. Vaccination and treatment records from the farms of origin or holding area.
 - o. Record for treatments administered, number of deaths as well as causes of deaths in the holding facilities prior to loading onto the vessel and on the vessel.
 - p. SOP for cleaning and sanitising of the vessel before loading and after loading.
 - q. SOP for pre-loading checks to determine the functionality of fire extinguishers, drainage systems, lighting and other equipment on board
 - r. SOP for administering of medication to sick or injured animals and the assignment of responsibilities.

14. REQUIREMENTS FOR THE MINIMUM SPACE AREA ACCORDING TO SPECIES

Cattle

Cattle grouped into age/weight	Mean weight (kg)	Minimum surface area (m ²) per animal unit
Small calves	50	0.30 to 0.40
Medium sized calves	110	0.40 to 0.70
Heavy calves	200	0.70 to 0.95
Medium sized cattle	325	0.95 to 1.30
Heavy cattle	550	1.30 to 1.60
Very heavy cattle	Over 700	Over 1.60

Table 1: Cattle – minimum surface area needed

Sheep and goats

Grouped into weight	Fleeced sheep	Lambs/kids and Shorn sheep
Live weight (Kg)	Long journey (m ²)	Long journey (m ²)
20		0.27
30		0.36
40	0.51	0.43
50	0.60	0.50
60	0.67	0.57
70	0.75	0.63
80	0.82	0.69

Table: 2. Sheep – minimum surface area needed per Kg

15. REFERENCES

1. World Organisation for Animal Health (OIE) Terrestrial Animal Health Code.
2. Animals Protection Act, 1962 (Act No. 71 of 1962).
3. Norris R T 2005 Transport of animals by sea. Rev.sci.tech. Off.int.Epiz., 24. 673-681.
4. Consortium of the Animal transport guides project (2017-rev1). Revision May 2018. 'Guide to good practices for the transport of cattle'
5. Consortium of the Animal transport guides project (2017-rev1). Revision May 2018. 'Guide to good practices for the transport of sheep'
6. Technical Advisory Committee. 2019 Review of the Australian Standards for the Export of Livestock: Air Transport. Draft report.
7. Australian Standards for the Export of Livestock <https://www.agriculture.gov.au/sites/default/files/documents/asel-v3.0-a4.pdf>.