# STANDARD OPERATING PROCEDURES

# INTERNATIONAL EQUINE COMPETITION

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DEPARTMENT OF VETERINARY SERVICES

MINISTRY OF AGRICULTURE AND AGRO BASED INDUSTRY

MALAYSIA

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# DIRECTIVES BY THE DIRECTOR GENERAL OF VETERINARY SERVICES

Malaysia has over the past few years been hosting several international horse competitions such as horse racing, endurance, polo and show jumping. These competitions not only developed further the horse industry in the country but also established it as a horse event organizer.

Many parties were involved in organizing these international horse competitions and the Department of Veterinary Services (DVS) invariably played an important role. It ensured that no diseases were being imported or transmitted through the participation of these imported horses. The DVS was also involved in supervising and maintaining the bio-security aspect of the event which included, quarantine measures before, during and after each event.

Organizers as well as all other parties involved need to understand the importance of biosecurity and adhere to its requirements. With this in mind that this Standard Operating Procedures (SOP) was prepared, so as to provide guidelines for a proper management of all participating horses and also as a preventive measure to any outbreak of horse disease.

It is hoped that these guidelines will ensure the proper management, health care and safety of all horses participating in future international horse competition in Malaysia.

All parties involves in future international horse competition in Malaysia must adhere to this SOP so as to ensure that the event can be run professionally and maintaining Malaysia as a country free from exotic horse diseases with no outbreak of the disease especially during the event. It would also assure to all importing countries that are to receive the animals after the event that the animals are healthy and free of diseases.

This SOP will improve the efficiency of the Department of Veterinary Services in dealing with any international horse competition and will be able to stimulate a healthy growth for the horse industry. I then, order all parties concerned to comply with these guidelines.

#### DATO .DR. AZIZ BIN JAMALUDDIN

**Director General of Veterinary Services** 

Malaysia

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#### INTERNATIONAL EQUINE COMPETITION

#### 1.0 OBJECTIVES

- 1.1 These procedures are to provide guidelines in the management of quarantine and biosecurity measures for horses participating in any international equine competition in Malaysia. The objectives are:
  - 1.1.1 To be fully prepared when receiving horses from participating countries.
  - 1.1.2 To ensure smooth inspection process at entry point.
  - 1.1.3 To ensure bio-security requirements are in place and quarantine procedures follow through.
  - 1.1.4 To ensure efficient issuance of Veterinary Health Certificates.
  - 1.1.5 To ensure proper re-exporting of competing horses to their country of origin or other destinations.

#### 2.0 SCOPES

- 2.1 Managing the Horses:
  - 2.1.1 Pre-arrival.
  - 2.1.2 Receiving of horses at Entry Point.
  - 2.1.3 At the Competition Site.
  - 2.1.4 Returning of Horses After the Competition.
- 2.2 Managing Bio-security Contingency Plan:
  - 2.2.1 Suspected Disease Outbreak During Temporary Quarantine.
  - 2.2.2 Suspected Equine Influenza.
  - 2.2.3 Suspected Travel Sickness.
  - 2.2.4 Decontamination Procedures for Suspected Disease Outbreaks.
- 2.3 Managing Sick and Injured Horses.
- 2.4 Managing the Transfer of Horses from Quarantine Stable to Clinic.
- 2.5 Managing the Removing of Dead Horses from Quarantine to Clinic for Post Mortem Examination.

#### 3.0 REFERENCES

- 3.1 Animal Act 1953 (revised 2006).
- 3.2 Animal Importation Order 1962.
- 3.3 FEI Statues, 21st Edition, revised effective May 2006.
- 3.4 FEI General Regulations, 21st Edition, revised effective 1st June 2006.
- 3.5 FEI Veterinary Regulations 10th Edition effective 1st June 2006.
- 3.6 The FEI Rules of Endurance Riding, 6th Edition, revision effective May 2006.
- 3.7 New Star Categorization for Endurance, effective 1st January 2005.
- 3.8 All subsequent corrections and modifications to the above rules and regulations as published by the FEI.

# 4.0 DEFINITIONS

#### 4.1 Standard Operating Procedures

Established or prescribed methods to be followed routinely for specific operations or situations.

# 4.2 Competition Site

An area where the competition or events are held.

# 4.3 Veterinary Officer

An officer appointed to the Department of Veterinary Services, Malaysia who is a Veterinarian. He must be registered with the Malaysian Veterinary Council.

# 4.4 Quarantine Officer

A Government appointed Veterinarian at the Animal Quarantine Station, Department of Veterinary Services. He must be registered with the Malaysian Veterinary Council.

# 4.5 Team Veterinarian and/or Event Veterinarian

Veterinarians that are registered with the Malaysian Veterinary Council and holding a valid Annual Practicing Certificate. They must also be accredited by the Director General of Veterinary Services.

#### 4.6 Animal Quarantine Stables

Stables used to isolate horses from different zones for disease monitoring during competition.

#### 4.7 Event Organizer

A team / group that organizes the international equine competition.

#### 5.0 ABBREVIATIONS

- 5.1 DVS Department of Veterinary Services
- 5.2 DGVS Director General of Veterinary Services
- 5.3 VO Veterinary Officer
- 5.4 QO Quarantine Officer
- 5.5 EO Event Organizer
- 5.6 TV/EV Team Veterinarian and/or Event Veterinarian
- 5.7 SQIE Section of Quarantine and Import Export Services
- 5.8 VHC Veterinary Health Certificate
- 5.9 NCR Non Compliance Record

# 6.0 STANDARD OPERATING PROCEDURES FOR INTERNATIONAL EQUINE COMPETITION

# 6.1 Managing the Horses

- 6.1.1 Pre-Arrival
  - 6.1.1.1 A VO shall provide the information on the Regulation for Temporary Importation of Horses into Malaysia to the EO (refer to DVS website: www.dvs.gov.my or DVS officer).
  - 6.1.1.2 A VO should compile the re-import requirements of each participating country and give the information to the VO who has been appointed to deal with the returning horses.
  - 6.1.1.3 A VO should inspect stables that are to be used for quarantine purposes so as to ensure it complies with the bio-security requirements (refer to annex I: Bio-security Measures at the International Equine Competition Site and annex 2: Horse GAHP Guidelines).
  - 6.1.1.4 A VO should ensure that the EO has conducted fogging of the competition area at dawn and dusk once a month for a period of 3 months before the event.

- 6.1.1.5 A VO should ensure that quarantine spaces are provided for, prepared and divided according to designated zones or as stipulated from time to time:
  - a. Europe
  - b. Middle East
  - c. Africa
  - d. America
  - e. Asia

6.1.1.6 The EO of the competition should provide the following information to the VO:

- a. List of participating countries at least three months prior to the competition.
- b. Number of horses that will participate in the competition and their identifications.
- c. Schedule of arrivals and departures of all competing horses at least one month prior to the competition.
- d. List and contact numbers of importers, owners or agents that are involve in the competition.
- e. Re-import requirements of participating countries or country of origin of participating horses.
- 6.1.1.7 Appointed agents for the competition should apply both the import and export permits from a competent Veterinary authority of the importing or exporting country at least a week prior to departure.

# 6.1.2 Receiving Horses at Entry Point

- 6.1.2.1 A QO should determine the following documents are available with the horses upon arrival:
  - a. Import permit from the DVS Malaysia.
  - b. VHC from the exporting country.
  - c. Horse passport.
  - d. Pre-export quarantine report.
- 6.1.2.2 A QO should conduct physical examination on the horses. Healthy horses either eed to be quarantined at the Government Quarantine Station or transfer directly to the

designated quarantine stable at the competition site. Unfit horses, should be immediately isolated in the isolation stable at the quarantine station.

- 6.1.2.3 Horse passport should be stamped by the QO at the entry point.
- 6.1.2.4 Floats for transportation of the horses must be disinfected before use (refer to annex I: Biosecurity Measures at the International Equine Competition Site). Floats are then sealed by the QO on duty. Seal should only be broken by the VO upon arrival at the competition site.
- 6.1.3 At the Competition Site
  - 6.1.3.1 Arrival at the Competition Site
    - a. Upon arrival of the float, the VO should check the seal and make sure it is not tampered with.
    - b. The VO should also conduct physical examination on the horse so as to ensure its health status. Any unfit horse must be isolated.
    - c. Horses should be placed in the quarantine stable according to their zone (refer to 6.1.1.5).
    - d. Footmat treated or soaked with disinfectant should be provided at all entry and exit points of the stable by the EO.
    - e. The VO should ensure that all parties involve in the management of horses at the quarantine stable to follow the guidelines strictly (refer to annex 1: Biosecurity Measures at the International Equine Competition Site).
    - f. Blood samples (10ml) should be collected by TV/EV from each horse for disease screening.

#### 6.1.3.2. During Competition

- a. TV/EV under the supervision of the VO must ensure that horses are separated according to their zones at all times and only mix when the event is held. All horses should exercise within its designated zone.
- b. TV/EV under the supervision of the VO should monitor the stable closely and ensure that disinfected footmats are available at all exit and entry areas.
- c. TV/EV should monitor the health status of the horses daily. Temperature must be taken and recorded every morning and evening. The examination, medication and treatment should also be recorded (refer to record I: Daily Inspection Checklist).
- d. TV/EV should inform the VO on duty if any horse is clinically abnormal. The VO on duty should issue an NCR report for any breach of quarantine (refer to record 2: Nan Compliance Record and record 3: Summary Non Compliance Report).

#### 6.1.4 Returning of Horses After Competition

#### 6.1.4.1 At the Competition Site

- a. TV/EV should ensure that horses are placed in their own stables at all times and under the supervision of the VO on duty.
- b. Appointed agents for the competition should apply the export permit from the DVS.
- c. The VO should examine all horses and issue VHC based on country of origin's requirements.
- d. Floats for the transportation of the horses should be disinfected before use (refer to annex 1: Bio-security Measure at the International Equine Competition Site). Floats are then sealed by the VO at the competition site before transfer to the exit point.

#### 6.1.4.2 At the Exit Point

- a. Upon arrival at the exit point, the OO on duty should check the transport seal and serial number.
- b. The QO on duty should also inspect and endorse export document and the horse passport before the horse embarks to its country of origin.

#### 6.2 Managing the Bio-Security Contingency Plan

- 6.2.1 Contingency Plan for Suspected Disease Outbreak During Temporary Quarantine
  - 6.2.1.1 TV/EV should be responsible for the health and clinical condition of competing horses during quarantine. The VO should be informed of any clinical signs such as pyrexia (body temperature 39°C or higher that is not due to exercise or transportation stress), anorexia, depression, coughing and nasal discharge.
  - 6.2.1.2 Horses that show any clinical signs or abnormalities should be placed at the isolation stable block. Relevant samples should be collected for laboratory diagnosis for notifiable equine diseases such as:
    - a. African horse sickness
    - b. Contagious equine metritis
    - c. Dourine
    - d. Equine encephalomyelitis (Eastern)
    - e. Equine encephalomyelitis (Western)
    - f. Equine infectious anaemia
    - g. Equine influenza
    - h. Equine piroplasmosis

- i. Equine rhinopneumonitis
- j. Equine viral arteritis
- k. Glanders
- I. Surra (Trypanosoma evansi)
- m. Venezuelan equine encephalomyelitis
- n. Anthrax
- o. Japanese encephalitis
- p. Rabies
- q. Rift valley fever
- r. Vesicular stomatitis
- s. West Nile fever

Other horses within the same stable should be closely monitored for any sign of the disease.

- 6.2.1.3 Suspected horses can only be released from the isolation stable after the VO is satisfied with the test results and the clinical conditions of the horses.
- 6.2.2 Contingency Plan for Suspected Equine Influenza
  - 6.2.2.1 Horses that show clinical signs of equine influenza should be moved to the isolation stable immediately. The VO should be informed of any suspected case (refer to 6.3).
  - 6.2.2.2 Horses should be subjected to full clinical examination including auscultation of lungs with possible use of re-breathing bag. Nasopharyngeal, tracheal wash and serum samples should be collected for laboratory diagnosis
  - 6.2.2.3 Horses with positive result should be treated by TV/EV accordingly.
  - 6.2.2.4 Clinical conditions of other neighbouring horses should be closely monitored by TV/EV (including taking rectal temperature twice daily) for at least 14 days and retest for equine influenza after 7-14 days.
  - 6.2.2.5 Dead horses if any, should be buried in designated landfill site (refer to 6.5).
- 6.2.3. Contingency Plan for Suspected Travel Sickness
  - 6.2.3.1 Horses that shows clinical signs of suspected travel sickness should be moved to the isolation stable. The VO should be immediately informed of any suspected case.
  - 6.2.3.2 The horses are then subjected to full clinical examination including auscultation of lungs with possible use of re-breathing bag.

- 6.2.3.3 Serum sample of suspected horses should be collected and sent to the laboratory for antibody assay of possible viral infections. The titre level has to be compared with that of serum collected upon arrival. Full blood count including fibrinogen and biochemical analysis should also be tested. Other test to be conducted include faecal sample culture.
- 6.2.3.4 Horses with positive clinical or diagnostic test result should be treated by TV/EV accordingly.
- 6.2.4 Decontaminated Procedures for Suspected Disease Outbreak.
  - 6.2.4.1. Stable, transport vehicle and equipment should be decontaminated with sodium hypochlorite or calcium hypochloride solution (2-3% available chlorine or 20,000 30,000 ppm).
  - 6.2.4.2. Effluent and manure should be treated with organophosphate or synthetic pyrethroids to control insects. Feed left overs should be buried at designated landfill site.
  - 6.2.4.3. Personal clothing of person that came in contact with the suspected horse should also be treated with sodium hypochlorite or calcium hypochloride solution (refer to annex 3: Standard Operating Procedures for Cleaning and Decontamination).

#### 6.3 Managing the Sick and Injured Horses

- 6.3.1 The VO should be notified of injured, sick and dead horses. Information should include; the identity of the horse, person in charge of the horse, clinical signs, clinical procedures likely to be performed and the responsible veterinary surgeon.
- 6.3.2 The VO should ensure that the transport vehicle are cleansed and have been decontaminated.
- 6.3.3 Horse requiring treatment should be escorted by a VO to the clinic stables to ensure that no contact will be made with other horses during the trip.
- 6.3.4 All attending staffs should wear overshoes and coveralls when managing the horse in the clinic. Personal hygiene should be strictly practiced.
- 6.3.5. The horse should be escorted back to its original stable after the condition is determined to be non-infectious and the horse is considered fit for transportation. The VO sample however, is required to authorize the movement.
- 6.3.6 If the condition is confirmed or suspected to be infectious in nature, the horse should be escorted to a designated isolation stable. The VO is required to authorize this movement.

#### 6.4 Managing the Transfer of Horses from Quarantine Stable to Clinic.

- 6.4.1 The DVS should be contacted for approval prior to moving the horse from any quarantine stable. In an emergency, authorized personnel may move the horse but should notify the DVS as soon as possible.
- 6.4.2 The horse should be isolated at all times while at the clinic with no possibility of contact with any of the local horse population.
- 6.4.3 A temporary isolation stable and buffer zone should be established at the clinic stable. Restricted access points should be established and signage placed to warn all personnel of the restricted access to the area. Disinfectant footbaths should be placed outside the stable and all access points to the buffer zone in the clinic corridor
- 6.4.4 All personnel should change into protective clothing and footwear before handling the suspected horse and remove the protective clothing prior to exit the clinic buffer zone. All protective clothing and footwear should be washed and disinfected after used.
- 6.4.5. The temporary isolation stable and buffer zone in clinic should be thoroughly cleansed and disinfected immediately after use.
- 6.4.6. Any sign of Suspected Infection during the temporary isolation period at the clinic should be reported to the DVS and the horse to be thoroughly investigated by the clinic veterinarian
- 6.4.7. The horse should return to the quarantine stable as soon as it is medically fit to do so.

# 6.5 Managing the Removing of Dead Horses from Quarantine to Clinic for Post Mortem Examination

- 6.5.1 The DVS should be contacted to obtain approval prior to removing the dead horse from any quarantine stable. In an emergency, authorized personnel may move the horse but should notify the DVS as soon as possible.
- 6.5.2. Whenever possible the removing of dead horses should be performed when all other local horses are confined to their stables.
- 6.5.3. Restricted access points should be established and signage must be put up to warn all personnel of the restricted access to the post mortem area. Disinfectant footbaths should be placed outside the post mortem room and at all access point to the buffer zone in the clinic corridor.
- 6.5.4. All personnel should change into protective clothing and footwear before handling the carcass and remove all the protective clothing prior to exit from the buffer zone. All protective clothing and footwear should be washed and disinfected after use.
- 6.5.5 Post mortem facilities and its buffer zone should be thoroughly cleansed and disinfected immediately after use.

For more information please contact:

Section of Quarantine and Import Export Services Division of Biosecurity and SPS Management Department of Veterinary Services Ministry of Agriculture and Agro-Based Industry Wisma Tani, Podium Block Lot 4G1, Precint 4 Federal Government Administration Centre 62630 Putrajaya Tel : O3 - 8870 2000 Fax : 03-8888 6472 Email : pro@dvs.gov.my Web : http://www.dvs.gov.my

# **7.0 ANNEXES**

#### ANNEX 1 : BIO-SECURITY MEASURES AT THE INTERNATIONAL EQUINE COMPETITION SITE

#### 1.0 PERSONNEL

- 1.1. All crew members attending to the imported horses should not come into direct contact with other local horses during the period the imported horses remain in Malaysia.
- 1.2. All personnel and visitors should be appropriately attired before entering the stables.
- 1.3. All personnel and visitors should wash their hands with hand wash provided at entry and exit of stable area.
- 1.4. Footbaths should be placed at entry and exit points of all stables.
- 1.5. Only personnel with approved security pass can be allowed access to their horses or into the stable area.
- 1.6. A security guard should be stationed outside the stables. Every exit and entry of all personnel, horses and visitors (even with security pass) must be recorded in the logbook.

#### 2.0. FEED AND BEDDING

- 2.1 Feeds and bedding materials from the stable area should not come in contact with feeds and bedding materials of local horses.
- 2.2 Sharing of water buckets, feed bin, flip Chains, feed tubs, halters or other items that might be in contact with horses' mouth, nose or eyes should be avoided.
- 2.3 Feed materials at the stable area that is not consumed should be discarded off appropriately.
- 2.4 Soiled bedding materials and faecal droppings from the stable area should be disposed off appropriately.

# 3.0 MOVEMENT OF HORSES WITHIN VENUE

- 3.1 Exercising imported horses should only be done within the designated area and to follow the set schedule. Faecal droppings should be removed and disposed off appropriately.
- 3.2 Imported horses should not come into direct contact with local horses except during competition.
- 3.3 Horses that show any sign of illness should be immediately isolated.
- 3.4 Avoid taking horses to common water or feed troughs.

# 4.0 HORSE FLOATS

All horse floats utilized in transporting horses before, during and after events are required to be thoroughly cleaned and disinfected according to its' manufacturer's recommendation.

# 5.0 MISCELLANEOUS

- 5.1 Materials and equipment used within the quarantine area must not be taken out of the area until all the horses have left.
- 5.2 Only designated vehicles are allowed to move within the quarantine area.
- 5.3 All materials used should be disinfected when all the horses have left.
- 5.4 No horse should be allowed into the disinfected stable area for a period of two weeks.

# ANNEX 2 : HORSE GOOD ANIMAL HUSBANDRY PRACTICES (GAHP) GUIDELINES

# 1.0 Stable

- 1.1. Housing facilities should be designed and constructed to provide for the horse's welfare.
- 1.2. Horses should be provided with a clean, dry area for lying down. In all types of housing system, horses should be free to stand up or lie down comfortably at all times.
- 1.3. Alleyways and box stalls should be constructed to permit easy access for both horses and attendants. They should be able to move about safely.
- 1.4. Stall size should be calculated in relation to the size and weight of the animal.
- 1.5. Ceilings and support beams in all facilities used to house horses should be high enough to permit horses to have a full range of head and neck motion without touching the ceiling when standing.
- 1.6. Stable floors should be properly designed, constructed and maintained so as prevent injury and to provide good traction, proper drainage and comfort to the animal.
- 1.7. The design of housing facilities and the materials used in their construction should permit easy cleaning.
- 1.8. Wiring and electrical panels should not be accessible to horses and must be installed in accordance to the Tenaga National Berhad Malaysia guidelines and certification.

# 2.0. Stable Maintenance

- 2.1. Stables should be cleaned thoroughly and frequently. It should be kept clean, dry and free from noxious odours i.e. ammonia. Adequate amount of suitable bedding materials should be provided.
- 2.2. When a deep litter system is used, the manure pack should be well drained and enough bedding materials added regularly to ensure a dry lying area. The deep litter system however, is not recommended for enclosed barns.
- 2.3. Manure should be handled and stored with a minimal negative impact to the environment and in accordance to the guidelines and standards set by the Department of Environment, Malaysia.
- 2.4. Equipment and facilities, including feeding utensils, drinkers, ventilating fans, heating and lighting units, fire extinguishers and alarm systems should be cleaned and inspected regularly to ensure that they are in good working order.
- 2.5. Proper storage facilities should be provided for all equipment so as not to obstruct or endanger the horses.

# 3.0. Lighting and Ventilation

- 3.1 Horse stables or housing should be well lit, so as to permit effective observations of all horses. Alleyways and work area should be uniformly illuminated and well ventilated.
- 3.2 Natural light source should be minimized as much as possible in the design of the facility so as to avoid unnecessary heat stress.
- 3.3 Drainage in the stables and areas around it must be good, so as to avoid any accumulation of water during heavy downpour.
- 3.4 Ventilation systems in the stable or housing should be capable of maintaining a good air exchange rate to prevent excessive heat built up and high moisture level. It should also be capable in removing major dust and gas contaminants that can be damaging to the respiratory system of both horses and human.
- 3.5 Stables should be equipped with mechanical ventilators so that fresh air can be uniformly distributed and foul, moisture-laden air be taken out. Stables may also be adequately ventilated through the use of air intakes and exhaust openings and/or in combination with the use of window and door openings to give reasonable air exchange without creating drafts.
- 3.6 Sunshine, wind, rain and air movements should not cause discomfort to horses while in the stable.

# 4.0 Safety

- 4.1 All stables and housing should have more than one emergency evacuation exits. Stalls should be equipped with quick release fasteners or some other means for easy release of the animals. A halter and lead rope for each horse should be available at all times.
- 4.2 Emergency procedures should be posted and updated regularly and should include;
  - Evacuation procedures for people and horses;

- List of emergency telephone numbers: and
- Emergency transportation and housing arrangement.
- 4.3 Emergency equipment should be installed and should include:
  - An effective smoke and fire detection system;
  - Automated fire extinguisher; and
  - Emergency lighting system
- 4.4 Stable owners should consult with the local fire department and request a site visit to review their emergency preparedness.
- 4.5 Electrical equipment (e.g. refrigerators) should be regularly checked.
- 4.6 Feeds and bedding should be stored in a separate building, away from horses.
- 4.7 Horse owners and handlers should be aware that horses may I ingest materials other than normal feedstuffs. Horses must not 1 be allowed access to potentially toxic materials such as agricultural chemicals, lead batteries, petroleum products and paints.

# 5.0 Fencing / Safety

- 5.1 Yards and pastures should be properly fenced to safely confine horses. The suitability of fencing varies according to the disposition of the horses, as well as stocking density and paddock/pasture size.
- 5.2 Fences should form both a physical and a visible barrier to minimize potential injuries. There should be at least 2 m leeway gap between adjacent yards.
- 5.3 Fences and gates should be maintained in good condition to prevent horses from gaining access to roadways. Fences should be of solid post and rails. Rails must not have any protrusions. The post should be at least 20 cm in diameter and 2.5 m apart.
- 5.4 Barbed wire and narrow gauge high tensile steel wire can cause severe injury to horses because of their cutting, non-stretching and non-breaking properties. These materials may only be used for fencing in extensive, pasture grazing situations. In closely confined paddock, they should be avoided.
- 5.5 Horses should be introduced to unfamiliar fenced areas during daylight hours to reduce the risk of injury.

# 6.0. Gates

- 6.1 Gates should be of materials that do not snag, chewable or dangerous.
- 6.2 Perimeter gates should be kept closed.
- 6.3 Gate latches must be secured and difficult for horses to undo.

#### ANNEX 3 : STANDARD OPERATING PROCEDURES FOR CLEANING AND DECONTAMINATION

#### 1.0 CLEANING AND DISINFECTION OF STABLES

#### 1.1. General Cleaning

- 1.1.1. A general cleaning programme should commence with dry cleaning. Sweep and pick up solid matter, including bedding, feaces and dropped feeds from stable floor and place them in designated bins. Scrape the surface of feed and water troughs to remove any solid residue.
- 1.1.2. All areas and equipment to be cleaned should be hosed or washed with low pressure water (or rinsed) with temperature between 54°C and 60°C.
- 1.1.3. All surfaces should be cleaned and scrubbed using household or industrial soap or detergent. Detergents containing disinfectants are not required. If such detergents are used, they are unlikely to clean and decontaminate a surface at the same time to the standard required. A separate decontamination step is still needed if they are used.

(Advice on whether a detergent that contains a disinfectant can adequately clean and decontaminate to the standard required must be sought from the manufacturer or supplier of the product).

Common detergents include high alkaline detergent (caustic soda based) for stubborn organic soiling, alkaline detergent (metasilicate based) for medium organic soiling phosphoric acid based for water-scale and certain protein soils and neutral detergents for light soiling, such as grease, fat and blood.

All agents should be treated with respect and no mixing of detergents should occur.

(Adding an oxidizing agent such as sodium hypochlorite (bleach) to an acid detergent leads to liberation of copious amounts of chlorine gas, which is very pungent and poisonous and can cause severe lung damage).

Sufficient time (as recommended by the manufacturer, usually 10 minutes) for the soap or detergent to react should be allowed. Temperature has some effect on efficiency and temperature up to 60°C is beneficial.

1.1.4. The final step of a general cleaning programme is rinsing. The soap or detergent together with the material that has been loosened should be thoroughly rinsed off with warm water (up to 43°C). Following the warm rinse a further rinse with water as hot as possible will be beneficial.

# **1.2.** Decontamination Procedures (After Cleaning)

1.2.1 Stables and associated facilities should be decontaminated with hot water. Temperature over

90°C is required to destroy heat resistant micro organisms and steam with temperature of 100°C is sufficient to decontaminate interior pipe work. (Steam works well only if the temperature of contact surfaces can be raised to 100°C and held there long enough to inactivate the concerned pathogen).

1.2.2. Chemical disinfectants should be used to decontaminate all contact surfaces at the stables, However, surface should be thoroughly cleaned with the correct concentration of chemical.

Select the most suitable type of disinfectant for decontamination. Chlorine compounds such as sodium or calcium hypochlorite solutions are probably used more commonly as they are generally cheaper than others and are effective if used under the right conditions. Hypochlorite powders are readily available as household bleaches and can be diluted for use on site. Sodium dichloroisocyanurate tablets may also be used. Final concentration of hypochlorite solution must contain 2 - 3% available chlorine (20,000 - 30,000 ppm).

(Hypochlorite solutions are not chemically stable and they decompose rapidly above i50°C. Chlorine compounds have the disadvantage of corrosive action and particular care should be taken when using them on galvanized or aluminum material. Hypochlorite solutions are also toxic to the eyes and skin. Operators should take all the necessary safety precautions. First aid facilities must be available during decontamination process).

#### Procedures

- i. Prepare the disinfectant solution as recommended by the manufacturer. The quantity of disinfectant necessary for a particular job varies considerably. 100 ml of disinfectant applied per square metre of polished, non-porous floor is probably sufficient. The quantity should be doubled or even tripled if the surface is concrete or wood.
- ii. Disinfectants should be allowed to remain at least ten minutes on the surface to be decontaminated.
- iii. Removable articles, such as trays, should be soaked in the solution for at least the same length of time, longer if surfaces are rough or scoured.

#### 1.3. Final Rinse

- 1.3.1 The disinfectant needs to be rinsed off after it has been applied for the necessary length of time. The disinfectant instructions should indicate if this is necessary.
- 1.3.2 If final rinse is necessary, warm water should be used to remove all dirt and residues of chemicals left behind.

# 1.4. Drying

- 1.4.1 After the decontamination process is completed, all contact surfaces should be thoroughly dried before use.
- 1.4.2 Air drying is preferable. All surfaces should be dry at the end of the cleaning and decontamination processes.

#### 1.5. Cleaning and Decontamination Schedules

- 1.5.1. All premises should develop a routine cleaning and decontamination schedule in addition to a contingency plan for disease outbreak.
- 1.5.2. The cleaning and decontamination schedule should be compiled for all equipment and surfaces to be cleaned and decontaminated. It should include the following information:
  - i. A detailed account of stripping and reassembly procedures for each item of equipment.

- ii. The manner in which each item and area is to be cleaned and decontaminated, and the time required for cleaning and decontamination.
- iii. The cleaning and decontamination products, concentration and mode of application.
- iv. Health and safety precautions necessary.
- v. Frequency of cleaning and decontamination.
- vi. Detailed cleaning and decontamination programme indicating contact time.

# 2.0. EQUIPMENT AND TACK DECONTAMINATION

- 2.1. Equipment and tack should be decontaminated using the following procedures:
- 2.1.1. Debris or dirt should be removed from all in-contact items.
- 2.1.2 Equipment should be washed with designated detergent (follow manufacturers guide).
- 2.1.3 All in-contact items should be dipped with designated disinfectant (follow manufacturers guide).
- 2.1.4 All items should be rinsed at least twice with clean water.
- 2.1.5 Decontamination should also be done on items such as horse tacks, grooming equipment, shovels and pitchforks.

# 3.0. PERSONAL DECONTAMINATION

- 3.1. A site designated for personal decontamination is essential near the exit point of the affected stable or stable block.
- 3.2. The site area should be sprayed with disinfectant applicable to the disease.
- 3.3. A disinfectant solution that is safe to the skin should be made available for personal cleaning and decontamination.
- 3.4. Heavy gauge plastic garbage bags should be made available for collection of disposable items, including coveralls.
- 3.5. The site should be thoroughly cleaned and decontaminated at the end of operation.

# 4.0. VEHICLE DECONTAMINATION

- 4.1 Vehicles that have entered the affected premises should undergo thorough decontamination procedures to both interior and exterior of the vehicles.
- 4.2 Disinfectant, and not plain water, to be used for decontamination purposes.
- 4.3 Soap or detergent and disinfectant with scrubbing to dislodge encrusted dirt and organic matter are preferable to washing with high pressure waterjet.

# 5.0. AIRCRAFT DECONTAMINATION

- 5.1. Mild alkaline disinfectant, such as 4% sodium carbonate with 0.1% sodium silicate, is suitable for decontamination of aircraft.
- 5.2 Extreme care is required when dealing with specialized equipment in the aircraft.

#### 6.0. MANURE DECONTAMINATION

- 6.1. Hypochlorite has limited effectiveness in the decontamination of manure due to high organic loads.
- 6.2. Acid disinfectant, such as 2% hydrochloric acid, should be sprayed on manure tor decontamination purpose.
- 6.3. Insecticide should also be sprayed on manure if insects were suspected to be the vector for the transmission of the disease concerned.
- 6.4 Treated manure should be buried.

# 7.0. HORSE FEED AND BEDDING

Left over feeds and beddings should be sprayed with insecticide and removed to be buried at designated landfill area.

#### 8.0. RECORDS

#### **RECORD 1:**

Activities	✓	Remarks
Stable Round twice per shift (state time)		
Round 1:		
Round 2:		
Inspection Checklist		
2.1. Quarantine Area Entrance		
Wheel dip is adequately maintained		
Only authorized vehicle enter quarantine area		
Others		
2 Stables		
All entry / exit are recorded		
	Stable Round twice per shift (state time)         Round 1:         Round 2:         Inspection Checklist         Quarantine Area Entrance         Wheel dip is adequately maintained         Only authorized vehicle enter quarantine area         Others         Stables	Stable Round twice per shift (state time)Image: Comparison of the state time)Round 1:Round 2:Round 2:Image: Comparison of the state time)Quarantine Area EntranceImage: Comparison of the state time)Wheel dip is adequately maintainedImage: Comparison of the state time)Only authorized vehicle enter quarantine areaImage: Comparison of the state time)StablesImage: Comparison of the state time)

	Visitors wear lab coat	
	Foot Dip is adequately maintained	
	All horses / personnel passes through disinfected foot mat on entry	
	and exit	
	All doors are closed at all times	
	Animal welfare is observed	
	Horse body temperature is taken 2x daily	
	Relevant personnel only in the stables	
	Ensure ail horse temperature has been taken	
	No banned drugs / medication within the vicinity of the stables.	
	No smoking in stables	
	Others	
2.3.	Exercise	
	Horses exercise according to the schedule	
	Horses exercise according to the designated route	
	No mixing of horses from different zones	
	Horse welfare is observed	
	Others	
2.4	Bio-security	
	Ensure all sick/injured horses are isolated properly	
	All floats are decontaminated at float decontamination area before	
	leaving the venue	
	Wheel dip and foot mats are maintained	
	Burial / manure pit must be limed after each dumping of waste	
	Ensure horses are in stables before stables are close	
	Others	

#### **RECORD 2:**

#### NON COMPLIANCE RECORD

Date:	Time:
Stable No.:	Horse No.:
Signature	Signature
(Steward)	(DVS's Officer on Duty)
Name:	Name:

#### NON COMPLIANCE LIST:

Please tick  $[\checkmark]$  where appropriate:

- 1.  $\Box$  Transport seal tampered with.
- 2.  $\Box$  Mixing of horses from different zones.
- 3. Dixing of horses from different health status.
- 4.  $\Box$  Stable entry / exit not recorded.
- 5.  $\Box$  Horse / personnel bypassing disinfected foot-mat on entry and exit.
- 6.  $\Box$  Horse temperature not taken / recorded.
- 7. 
  □ Exercise horse not according to schedule.
- 8.  $\Box$  Exercise horse not according to designated route.
- 9.  $\Box$  Personnel not properly attired at the stable.
- 10.  $\Box$  Smoking at stable area.
- 11.  $\Box$  Used of banned drugs/ medication.
- 12.  $\Box$  Horse abuse / neglect.
- 13. 
  Others (Please describe) .....

# **RECORD 3**

# SUMMARY NON COMPLIANCE REPORT

NO	DATE	NON COMPLIANCE

.....

Signature

Name:....

.....

Signature

Name: .....

(Event Organiser)

(DVS's Officer on Duty)

#### **COMMITTEE MEMBERS**

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