

**Tuskegee University
College of Veterinary Medicine
Veterinary Medical Teaching Hospital
Animal Health and Safety Plan**

EXECUTIVE SUMMARY

The Veterinary Medical Teaching Hospital (VMTH) is a full-service practice for all animal species. VMTH provides primary care, preventive medicine, and after-hour services to the surrounding community. Specialized medical, surgical, and diagnostic services are offered to the community and referring veterinarians and their clients. VMTH provides a wide range of outreach programs, including service to underserved areas, horse and small animal health fairs, clinical pathology, histology, necropsy services, and a large animal ambulatory and small animal house call practice. VMTH, a strong advocate of the human-animal bond, also offers animal behavior consultations and grief counseling and support.

PREFACE

The Veterinary Medical Teaching Hospital ensures appropriate care and support for animals treated and housed at its facilities and/or under its care. The following are general guidelines for the proper care and humane treatment of animals entrusted to Tuskegee University Veterinary Medical Teaching Hospital. These guidelines operate in conjunction with the policies and procedures outlined by Tuskegee University's Biosafety Committee, College of Veterinary Medicine's Health and Safety Committee, Tuskegee University's Institutional Animal Care and Use Committee and AVMA Guidelines for Veterinary Practice Facilities.

PERSONNEL

Staff will be screened and selected for suitability to tasks assigned and trained in performance of their duties upon employment. Training will address animal, personal, public safety, and emergency response. Performance will be monitored on a continual basis. All training is documented.

ANIMAL HUSBANDRY

Housing or Caging—Caging or housing systems provides adequate space and accommodate appropriate population densities, allow animals sufficient freedom of movement, permit normal postural adjustments, and include a resting place appropriate for the species being housed.

Preventive medicine areas for isolation of sick animals and quarantine of newly arriving animals are provided where appropriate. The Isolation Unit is located at the base of the campus behind Junior Surgery.

Special housing accommodations are sometimes necessary for unusual species such as those with unique metabolic or genetic characteristics, or special behavioral and/or reproductive needs. Exercise areas, runs, or pens are available for animals that will be held for long periods. Other primary considerations include:

Safety—Provides a secure enclosure that addresses physical safety, fear, and stress;

Food and water—Provides easy access to food and water;

Biological needs—Maintains appropriate body temperature, permitting urination and defecation, ensuring timely waste removal, and, if appropriate, facilitating reproduction;

Cleanliness—Keeps animals dry and clean, depending on species requirements;

Restraint—Avoids unnecessary physical restraint; and

Behavior—Ensures the animals' ability to engage in normal species behavior.

Animals housed outdoors have access to shelter from the elements. Caging or housing systems are constructed of sturdy, durable materials and be designed to maximize biosecurity. Surfaces are smooth and impervious to moisture, and are designed for easy maintenance. The design allows for easy inspection of cage occupants. Feeding and watering devices are easily accessible for filling, changing, cleaning, and servicing.

Caging, runs and pens are in good repair to prevent injury, maintain physical comfort, and facilitate sanitation and servicing. Sharp edges and broken wires are eliminated, floors are kept in good condition, and deteriorating equipment are refurbished or replaced.

Caging, runs, and pens are inspected on a monthly basis and/or prior to use. Report all repairs to Dr. Howard King.

Feeding—Animals are fed palatable and nutritionally adequate food daily or according to their particular needs. Feeders allow easy access to food, and prevent soiling by urine and feces. Food is available in amounts sufficient to provide for normal growth, and maintenance of normal body weight, reproduction, and lactation. Areas where food is prepared or stored are clean.

Bulk supplies of food are stored in designated areas that are cool, dry, clean, and free of vermin, off the floor on racks. All foods are stored according to the manufacturer's recommendations for proper storage followed to preserve nutritional quality and prevent contamination. Open bags of food are stored in vermin-proof containers. Food containers are sanitized frequently.

Watering—Animals have access to fresh, potable, uncontaminated drinking water. Watering devices are examined routinely to ensure their proper operation. When water bottles are used, they are appropriately sanitized.

Bedding—Bedding is appropriate, free of toxic chemicals or other substances that could injure animals or personnel, and of a type not easily eaten by animals.

ANIMAL ENVIRONMENT

Temperature and Humidity—Appropriate environmental conditions vary with the species of animal being housed. For dogs and cats, the ambient temperature is kept above 60 degrees Fahrenheit (15.5 degrees Celsius), and below 80 degrees Fahrenheit (26.6 degrees Celsius), and the relative humidity should range from 30 to 70%.

Ventilation—Ten to fifteen room air changes per hour are generally considered adequate ventilation for animal facilities. Room air is not recirculated. If recirculating systems or other energy-recovery devices are used, these systems must be adequately maintained. Areas for quarantine, isolation, or soiled equipment are appropriately exhausted to avoid contamination.

Lighting—Lighting is uniformly distributed throughout animal facilities to permit good observation of animals, provide a photoperiod control appropriate to the species, and contribute to a safe working environment for personnel. Emergency lighting is provided. Natural lighting is used where available.

Noise—Activities that create noise with the potential to cause stress is minimized and conducted away from animal housing. Excessive noise is minimized by training staff and by use of appropriate equipment and facilities. Animals that produce levels of noise having the potential to cause stress are housed separately. Appropriate noise protection for personnel is provided where noise levels are high, above 85 decibels.

Social—Where group housing is appropriate, consideration is given to behavioral and social interactions. Environmental enrichment is considered as appropriate to the species. Human interactions are incorporated into daily routines where appropriate. Play opportunities and enrichment are provided on a regular basis.

SANITATION

Cleaning—All equipment and areas are cleaned (beginning of the day, between patients, and at the end of the day) with appropriate detergents and disinfectants. Bedding used in cages or pens is changed daily or as required to keep animals dry and clean. Animal waste is removed at least once daily, via collection, hosing, or flushing. Animals are kept dry during these procedures. Litter is emptied from cages and pens in a manner that minimizes exposure of animals and personnel to aerosolized waste. Cages are sanitized, using proper agents followed by thorough rinsing, before animals are placed in them. Animals and personnel are protected from noxious agents. Waste cans or containers are cleaned and sanitized daily.

Waste Disposal—Waste is removed daily, and in compliance with all federal, state, and local laws and regulations. Waste cans are leak-proof and have tight-fitting lids. Waste storage areas are separate from animal housing areas and kept free of vermin. Biological wastes are stored appropriately prior to disposal.

Vermin—A program to control, eliminate, and prevent infestation by vermin is provided. Preventing entry is the most effective method, and is accomplished by screening openings, sealing cracks, and eliminating breeding and refuge sites. When possible, relatively nontoxic compounds (e.g., boric acid) or drying substances (e.g., amorphous silica gel) are used to control insects.

Identification and Records

An individual record is prepared for each animal. Records include a description of the animal, the date obtained, the source, the length of time held, and any treatment provided together with its final disposition. Individual animals are identified in a consistent and recordable manner (e.g., tags, cage cards, microchips, tattoos).

Weekend and Holiday Care

Animals are observed and cared for by qualified personnel every day. Emergency care is provided after hours, holidays and weekends by qualified veterinarians who rotate on call duties.

Disaster Plan

The goal of the animal health and safety plan is to ensure TUCVM is able to respond to and restore animal operations as soon as possible following a disruption of services or an emergency involving the animal facility (e.g. power outages, loss of water, natural disasters). This plan will be implemented any time there is a threat of disruption to the daily operations of animal buildings on campus. Every incident requires notification of the Tuskegee University Police Department and other appropriate university committees (Biosafety Committee, Radiation, and/or IACUC). Depending on the nature and severity of the incident, Tuskegee Fire Department and/or Macon County Emergency Management Agency may be activated.

The VMTH Director or designee will serve as the leader. Dr. King will be responsible for the small animal clinic and Dr. Bridges will be responsible for large animals.

- Plans to evacuate or shelter in place
 - Fire – Sound the fire alarm. Move animals to a safe location.
 - Storms – ensure that animals are protected from sounds. Keep animals in the most interior part of the building, away from windows.
 - Terrorist attack – move animals to a secure location, treat wounded or sick animals.
- Power Failure
In the event of power failure, back-up generators will be activated. The maintenance engineer tests generators frequently to ensure that they are working properly.

Veterinary Care and Euthanasia

A program of preventive and emergency medicine has been established by and supervised by a veterinarian. Sick or injured animals receive veterinary care promptly. Animals are euthanized when necessary only by qualified personnel, in accordance with recommendations in the current report of the AVMA's Guidelines on Euthanasia, and as permitted by law.

Hazard Communication Standard

OSHA regulations require veterinary offices to take special measures regarding the handling of toxic substances. Material Safety Data Sheets on all chemicals are available and accessible to employees. This document provides employees with instructions on how to safely handle toxic substances and sets out emergency procedures for a particular toxic substance. All chemicals are clearly labeled and identified as required by OSHA.

Recordkeeping Standards

OSHA requires veterinary offices to maintain certain documents and records. If the office has at least 10 employees, it must keep a log of all workplace-related injuries and illnesses sustained by employees. On OSHA Form 300, the office must record each work-related injury or illness, the name of the employee involved, the employee's job duties, the date of injury, where the injury-causing event occurred, a description of the injury and the amount of work days missed by the employee. The office must prepare an incident report for all accidents or injuries that occur. At

the end of the year, the veterinary office must prepare a summary of all work-related accidents and injuries. All these records are available to OSHA for inspection upon request.

Anesthesia Standards

OSHA regulations require veterinary offices to take special precautions when administering anesthesia to animals. The anesthesia equipment in a veterinary office must contain a system, such as a central vacuum system or passive duct system, to prevent excess anesthesia gas from building up indoors. Anesthesia technicians in a veterinary hospital must take care to choose a mask and tracheal tube that suits the animal being administered anesthesia. Once an anesthesia technician concludes the administration of anesthesia, OSHA regulations require the emptying of the breathing bag into a scavenging system, not into the room.

Training Requirements

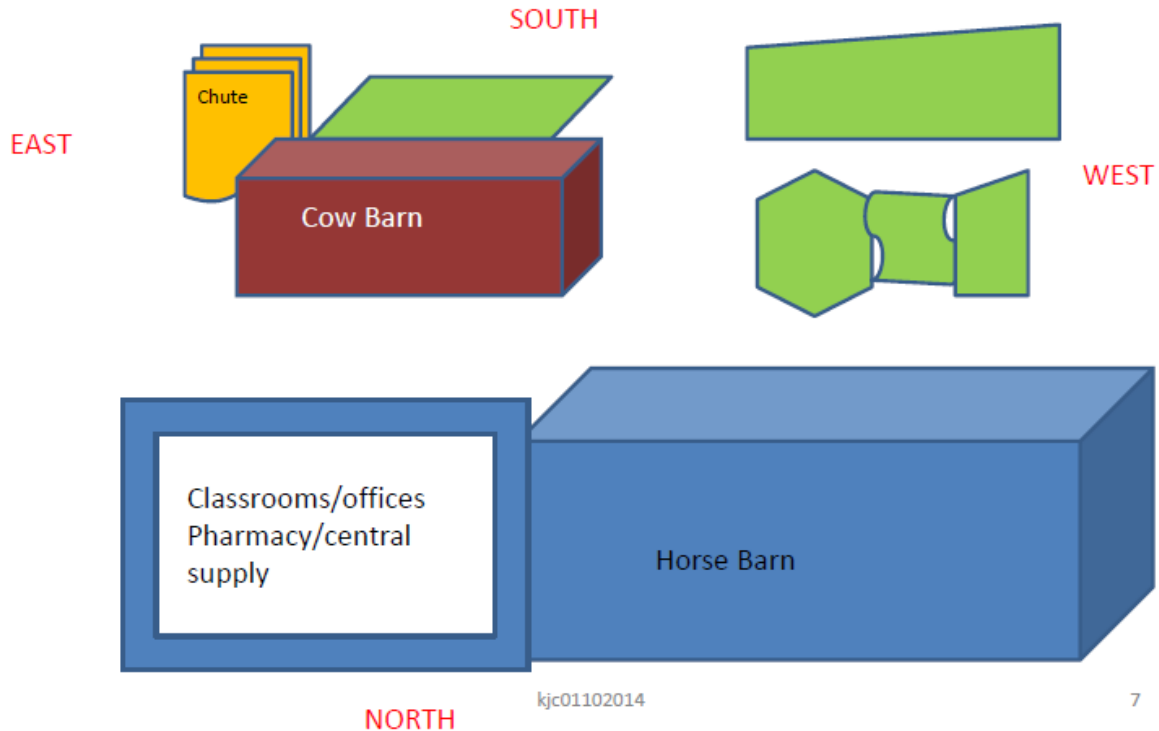
OSHA requires the owners of veterinary offices to continually train employees as a means of preventing a variety of risks that may arise in the workplace. A veterinary office is required to revise and train employees regarding fire prevention, fire protection, first-aid and evacuation procedures. Employees must know how to properly use protective equipment, including eye and face equipment, respiratory equipment, head protection, foot protection and hand protection. Employees must also be trained in detecting and handling toxic substances, such as formaldehyde and ethylene oxide, as well as preventing the spread of blood-borne toxins.

Large Animal Evacuation

The Large Animal Care Clinic – Horse Barn (LACC) houses classrooms, offices, pharmacy, central supply and the horse barn. The LACC has three (3) aisles with an east to west direction. The main rollup door is on the southwest end of the barn. This is the main entrance and exit for clients/animals. The north aisle has a manual rollup door at the west end. The middle aisle has a rollup door (electric/manual) located at the west end. The south aisle dead ends to the back of isolation, at the west end. The only entrance/exit is to the west and out the main electric/manual rollup door at the southwest end of the barn. The north aisle has stalls on either side labeled D&E respectively. The middle aisle has stalls on either side labeled B&C respectively. The south aisle has one row of stalls labeled A.

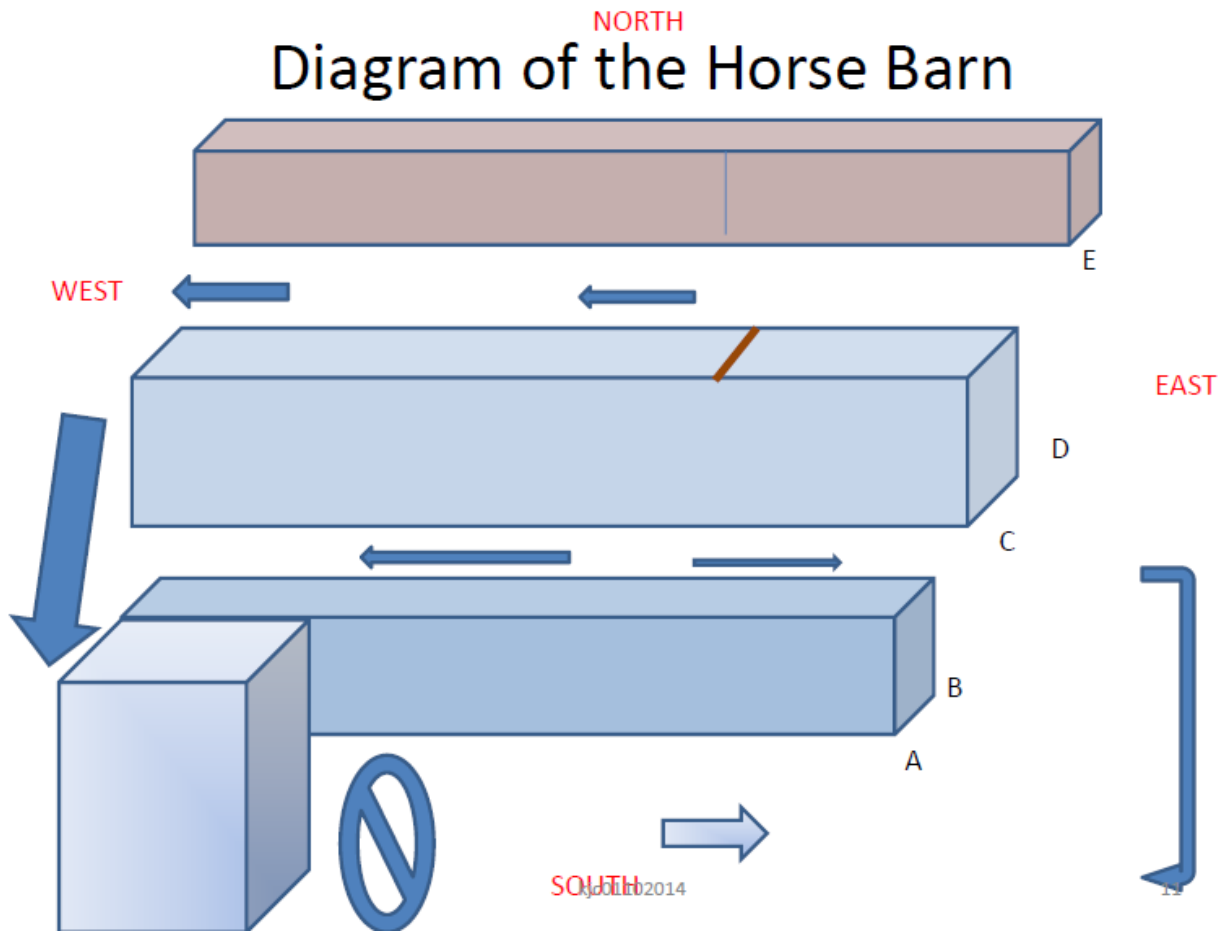
Note: Rows A&B are back to back and rows C&D are back to back; Rows E, D, and A are half rows with stalls starting midway going west; row C is a $\frac{3}{4}$ stall going west; and row B has a full complement of stalls. At the west end of the aisle 1 is isolation which opens to the outside of the barn with direct access to the inside. Isolation contains two (2) stalls.

Cow & Horse Barns Relation to Paddocks



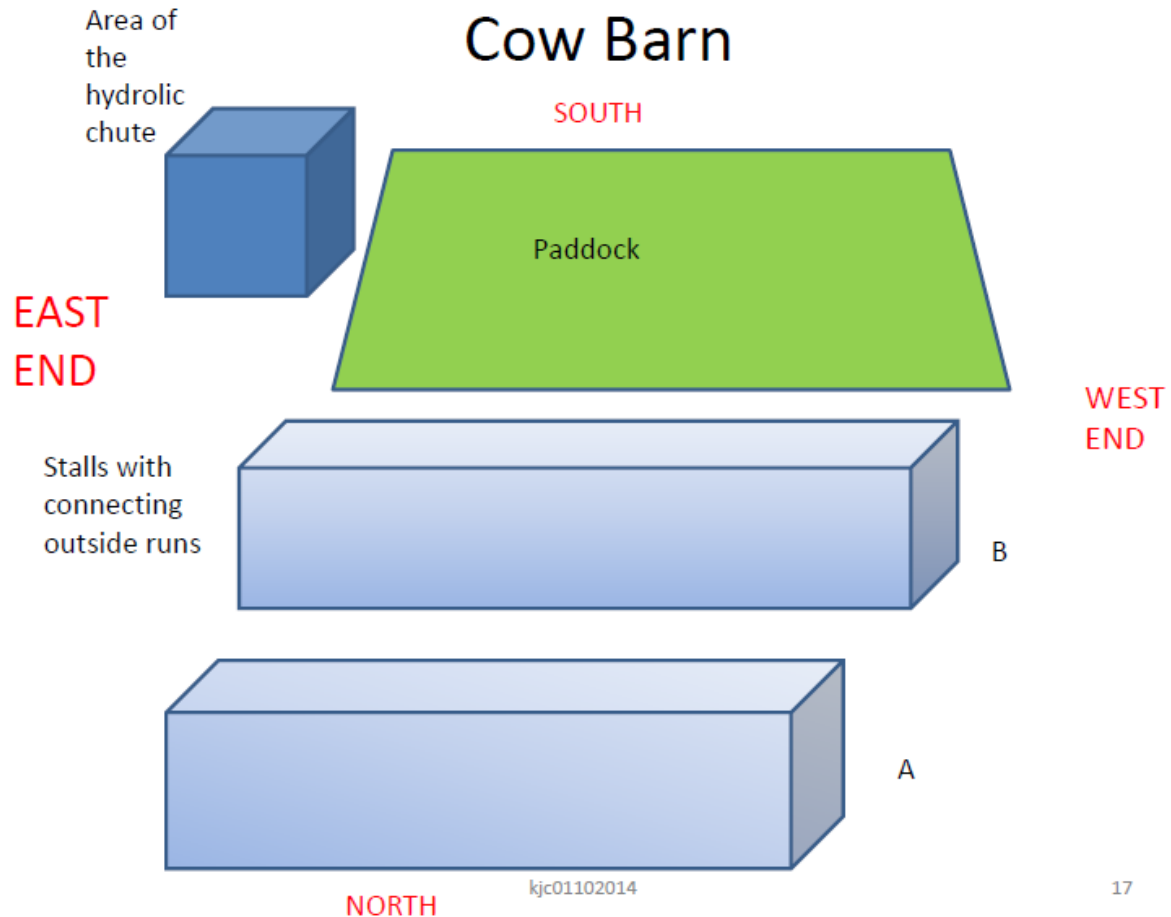
- Tornado
 - Animals housed inside will remain inside.
 - Animals outside in the pasture will remain outside.
- Flooding
 - The clinic is located on high ground with adequate drainage. Animals in-house can be maintained in-house.
- Fire
 - Horses
 - North aisle rows D & E: horses are to be walked out the west and roll up door then head south toward the paddocks.
 - Middle aisle rows: B & C: row C is to be walked out the west rollup door then head south to the paddocks.
 - Animals in isolation will be placed on trailers and moved to the opposite side of the paddocks away from health animals.
 - The eyes of horses will be covered with towels/blankets as they are moved outside to prevent them from returning to the building.
 - See diagram below

- Note: Every effort will be made to save all animals within reason and without harm to humans.



Cattle

- Cattle are to be driven to the cow barn paddocks
- Small ruminants can be temporarily taken to the far paddock behind the cow barn paddock or placed on the cattle trailer and moved to the far side outside of the southernmost equine paddock.
- See diagram below
- Note: Every effort will be made to save all animals within reason and without harm to humans.



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When it is safe to do so, animals will be accounted for initially by count and then by identification from medical records and markers.

Important Reminder:

- Horses and farm animals will return to places of perceived safety, i.e., in an attempt to run from danger, they may run back to the place in which they are being taken from. Cover the head of horses with towels or blankets.
- Horses, cattle, small ruminants, swine, etc. will panic. This can result in serious injury for both animals and people. Those identified to assist with animals during disasters must be formally trained and part of the managed team of rescuers.
- Average horse weighs 500 to 1500 pounds and may not be easy to handle on a good day.

Small Animal Clinic Evacuation

The Small Animal clinic occupies 7,100 square feet and is subdivided into three operating rooms; five general wards including intensive care room, indoor runs, and isolation ward; four examination rooms including one to accommodate ophthalmology examinations; a student lounge/mini-rounds classroom; a mini-clinical pathology laboratory; a dispensary; a diagnostic imaging facility for large and small animals; diagnostic imaging reading room; kitchen and companion food storage area; dental room; medical records depository; business office; client waiting room; offices for interns; and washer and dryer. Animals (dogs and cats) housed will be evacuated or sheltered as outlined below.

- Tornado
 - Animals will be sheltered in place in the center of the building.
- Fire
 - Evacuate all animals to the external dog run. Animals in isolation will be placed on a trailer and moved to an area away from healthy animals.

Junior Surgery Building Evacuation

This is a 5,000 square foot building that houses all activities related to teaching student surgery, including pre-op and post-op areas, a canine preparation room, surgical preparation room with 18 tables, autoclave facilities, surgical supply storage area, locker rooms, surgical suite with 20 surgical tables, laundry room with washer and dryer, break room, technician's office, companion animal food and supply storage areas, canine wash room, and kennel area with 23 runs.

- Tornado
 - Animals will be sheltered in place in the center of the building.
- Fire
 - Dogs will be evacuated in the portable cages and housed at least 200 yards away from the building.

Appendix

Tuskegee University College of Veterinary Medicine, Veterinary Medical Teaching Hospital adheres to AVMA's Guidelines for Veterinary Practice Facilities outlined below.

Guidelines for Veterinary Practice Facilities

The AVMA considered establishing standards for veterinary practice facilities, and came to realize that specific requirements are difficult to define. The diverse types of practices, economic conditions, and facility requirements throughout the country preclude development of a single set of specific standards applicable to all practices.

As a result, the Association has listed 16 general guidelines that should be considered in development and operation of a veterinary practice facility. They are:

1. Overall cleanliness and neatness of personnel and facilities.
2. Adequate protection against dissemination of disease.
3. Proper disposal of all waste material.
4. Access to adequate equipment for generation of quality diagnostic images. Provide proper procedures and equipment to protect staff members from radiation exposure.
5. Adequate ventilation and freedom from noxious odors.
6. Freedom from noise pollution.
7. Adequate restraint facilities that are humane in providing proper care to patients during all aspects of their visit.
8. Availability of proper refrigeration and sterilization equipment.
9. Facilities and equipment provided and properly maintained that are suitable for currently acceptable veterinary practice.
10. Adequate and complete patient, personnel and financial records.
11. Adequate personnel to provide proper veterinary care.
12. Appropriate facilities and records for the proper storage and dispensing of drugs and supplies in compliance with federal and state laws.
13. Proper equipment for anesthesia management and monitoring of patients under anesthesia.
14. Provide laboratory services to assist with accurate diagnosis.
15. Provide surgery in an aseptic environment with appropriate pre- and post- operative considerations.
16. Provide a safe and healthy environment for clients, patients and staff that are in compliance with governmental jurisdictional entities such as but not limited to FDA, USDA, OSHA and EPA.

References:

Animal Welfare Act and Animal Welfare Regulations, United States Department of Agriculture, Animal and Plant Health Inspection Service. September 2013.

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