Health, Housing and Husbandry of Detection Dogs

1. Introduction:

This topic contains advice on managing the health, housing and husbandry of Detection Dogs. The United States has specific legislation to secure the welfare of all kinds of animals. The American Veterinary Medical Association and other various veterinary groups have also developed standards and best practices for the health care and management of dogs. These information sources should be consulted for further information on issues involving the health, housing and husbandry of detection dogs. It is very important for all canine detection services to keep dogs in good health and mentally fit, both on and off of duty hours. It is necessary to have an optimal physical and mental condition in order to optimize the potential of these dogs.

This paper will introduce housing recommendations, husbandry or general care issues, and health care issues related to management of the working detection dog. These guidelines are recommended but are not mandated to service dogs who are owned by individuals.

2. Housing

Housing will be divided into two categories: Contract/Governmental and Home Kenneling. The situations discussed here are: units for training, for operational work, for sick dogs, and for dogs in quarantine.

2.1 Contract/Government Housing

2.1.1 Introduction

In Contract/Government Housing, permanent kennel staff takes care of the dogs. They provide feeding, cleaning, health care and basic exercise for the dogs, secures the dogs from being neglected when the handler is off duty. Contract/Government Housing needs to provide the dog with rest, food and sleep. The structure of the facility influences the mental and physical well-being of the dog.

2.1.2 Contract/Government Housing Recommended Guidelines

Kennel facilities must at least meet accepted USDA Animal Welfare Act guidelines. See Animal Code of Federal Regulations:
In addition to the USDA guidelines, our recommendations include the following:

The facility shall be kept dry and clean and potable water should be provided. It should protect against environmental extremes. The kennel environment should be well ventilated to provide adequate air exchange.

Dogs should not be housed long term in a sky kennel, transportation kennel/crate.

A solid wall barrier measuring at least 48 inches high shall separate adjacent kennels.

The flooring of each kennel run should be graded and sealed to allow water to run off and prevent standing water.

A resting surface of at least 6 inches off the kennel floor shall be in place for the dog to have access to a dry surface.

The enclosures shall be sanitized daily and disinfected at least once a week. Disinfectant solutions must be non-harmful. They shall be used within the manufacture recommended dilution guidelines. A Material Safety Data Sheet (MSDS) concerning the disinfectant agents shall be posted in the facility.

2.1.3 Contract/Government Housing Medical Issues

In Contract/Government Housing it is advisable to have a separate kennel area to isolate sick dogs from well dogs. In the absence of a separate kennel for sick dogs, a protocol must be established to assure that sick dogs are separated from the healthy dog population. For example, take sick dogs to a veterinary hospital where the dogs stay until they have recovered.

2.1.4 Contract/Government Housing Quarantine

The quarantine period shall last a minimum period of 10 days with a best practice of 14 days.

When new dogs are brought into the facility, these dogs shall be separated and housed away from the healthy dog population. The
dog should be given a preventative worming treatment upon arrival.

During the quarantine period the dog must test negative for heartworm and/or have proof it has received heartworm preventative. Dogs shall test negative for intestinal parasites before being included into general dog population.

The dogs shall have proof of current vaccination or proper titer for the core vaccines. These vaccines include: Rabies, Distemper, Hepatitis (Adenovirus 2), and Parvovirus. If there is no proof of current vaccination the dogs should then be vaccinated.

2.1.5 Contract/Government Housing Recommended Facility Requirements

In Contract/Government Housing, there are a number of facility requirements. The most important are:

- Exercise and play area
- Supplies for first aid and minor veterinary emergencies
- Human first aid kit
- Food preparation and storage area (for storage Requirements see Section 3.1.2)
- Record system to identify the dog, eating habits, excrements and medical status.
- Dog cleaning and grooming area

2.1.6 Personnel

The kennel personnel shall be competent in the care and management of detection dogs.

2.2 Home Kennel

2.2.1 Introduction

Home kenneling is where a detection dog resides with the handler. Off-duty care is provided by the handler.

2.2.2 Home Kennel Housing Recommended Guidelines

Kennel facilities must at least meet accepted USDA Animal Welfare Act guidelines. See Animal Code of Federal Regulations:
In addition to the USDA guidelines, our recommendations include the following:

The kennel shall be constructed to provide security and shelter for the dog. It should be kept dry and clean and potable water should be provided. It should protect against environmental extremes. The kennel environment should be well ventilated to provide adequate air exchange.

In an outdoor kennel, an internal housing box should be provided to protect the dog from environmental extremes. The box should be made of a material that provides safe and sanitary conditions.

In a home kennel environment that has an exercise area, it is recommended that the kennel floor space be at least 4 foot by 8 foot. In a home kennel environment without an exercise area, we recommend a 10 foot by 10 foot kennel floor space and at least 6 foot in height. It is recommended that the kennel space have an enclosed top. Dogs should not be housed long term in a sky kennel or transportation kennel/crate.

An exercise area is an enclosed space of at least 10 foot by 10 foot dimensions.

The flooring of each kennel run should be graded and sealed to allow water to run off and prevent standing water.

A resting surface of at least 6 inches off the kennel floor shall be in place for the dog to have access to a dry surface.

The enclosures shall be disinfected at least once a week. Disinfectant solutions must be non-harmful. They shall be used within the manufacture recommended dilution guidelines. A Material Safety Data Sheet (MSDS) concerning the disinfectant agents shall be on the premises.

2.2.3 Home Kennel Housing Handler Responsibilities

The handler shall provide necessary health care and grooming. The handler shall provide daily and weekly sanitation of the kennel. The handler shall be responsible for feeding and watering the dog.
The handler shall provide adequate exercise and mental stimulation for the dog.

3. Husbandry

3.1 Nutrition

The nutritional needs of the detection dog can be complex. The dietary program needs to provide the dog with all the nutritive substances necessary for growth, maintenance and activity. The correct diet is determined by studying the energy needs of the dogs. There are different requirements in function of growth, environment, work, digestibility, maintenance, climate, age, reproduction, disease, and individual needs.

Dog foods that meet Association of American Feed Control Officials (AAFCO) standards contain the necessary daily vitamins and minerals. The food should be of high quality and digestibility. If a health condition merits a specialized diet a veterinary recommended dietary program shall be implemented.

The diet should maintain the dog in proper working condition. Use of a body conditioning scoring system can help to determine the amount of food provided to the dog. A body score of 2-3 on a scoring system ranging between 1 and 5 is considered optimum. The diet can be manipulated according to the metabolic needs of the dog. (Laflamme, D. (1997) Development and validation of a body condition score system for dogs: a clinical tool. Canine Pract. 22: 10–15).

3.2 Food Preparation and Storage

Keep all kitchen surfaces and food preparation utensils clean at all times.

Food shall be stored in an environmentally maintained room whose temperature is maintained at the manufacturers recommended storage and temperature range.

Dog food shall be stored in rodent and pest proof containers.

Dispose of uneaten food immediately after the feeding period.

Empty all trash containers as needed or at least daily, to preclude attracting pests into the facility.
3.3 Physical and Mental Stimulation

3.3.1 All dogs need access to or participate in activities or experiences that enrich their physical and mental states. Application of enrichment options will be at the discretion of the local management and trainer, to ensure that the options are safe, appropriate and beneficial to the dog.

3.3.2 A dog needs daily physical exercise and mental stimulation. This would include taking the dog out for regular walks, and allowing more intensive exercise on a playing field or some other free-roaming facility. The daily exercise by the handler or the kennel staff optimizes the efficiency and performance of the dog. Careful observation of the dog during this daily exercise can alert both the handler and the kennel staff to physical problems.

3.4 Daily health check and hygiene

3.4.1 The handler or the kennel staff should check the dogs’ health daily.

- This is a nose to tail examination. It includes the examination of the skin, eyes, ears, oral cavity, limbs, feet, genitalia, body functions and attitude.
- Sometimes a dog’s abnormally strong body odor will indicate a health problem.
- Observe the movements of the dogs during exercise and training,
- Observe the dogs excrements. If a general excrement problem is seen it can indicate something is wrong with the dog.
- The kennel area and dog house should be checked for hazards and invaders on a routine basis.

3.4.2 The dog needs to be groomed routinely, and kept clean.

3.5 Transport

3.5.1 Air Transport should be in compliance with local, state, federal or air carrier regulations. (Reference [www.iata.org](http://www.iata.org))

3.5.2 Any vehicle/vessel utilized to transport working dogs should provide a secure and temperate environment which is suitable to the general health and well being of the animal. Recommendations include;

- Sufficient air exchange to suit conditions
- Protection from environmental extremes
- A secured container with non-slip flooring
- Provide sufficient space to allow each dog to turn about freely, to stand, sit and lie in a comfortable, normal position
• Containers should prohibit animals from making contact with each other and the general public.

4. Dog health care

4.1 A veterinarian must examine working dogs at least once a year. Some searching dogs work in more hazardous circumstances. These dogs may need to be monitored more frequently. The local management, kennel staff or the handler is responsible for coordinating veterinary examinations.

4.2 Immunization required for evaluation and procurement. At minimum must either have been vaccinated (essential in the case of Rabies) or have a titer indication showing that a particular vaccination was not needed within the previous 12 months for:

Rabies – vaccination in accordance with state and local laws

Canine distemper (CDV)

Canine adenovirus (type 2) (CAV-2) (Canine Hepatitis)

Parvovirus (CPV-2)

Leptospirosis

There may be particular regional/national requirements which must be considered. The 2006 AAHA (American Animal Hospital Association) guidelines should be consulted

4.3 In addition to vaccinations dogs also shall receive regular checks for internal and external parasites and a blood chemistry profile.

4.4 Monthly preventative for fleas, ticks, and heartworm shall be administered by the handler or designated caregiver.

4.5 If additional reasons arise for veterinary care it is the responsibility of the handler or designated responsible party to ensure that timely care is provided.

4.6 In the event that a dog bites a person refer to local, state and federal regulations.
5. Breeding Kennels to be addressed later (a link to be provided later)

6. Appendix A

[Code of Federal Regulations]
[Title 9, Volume 1]
[Revised as of January 1, 2003]
From the U.S. Government Printing Office via GPO Access
[CITE: 9CFR3.6]

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TITLE 9--ANIMALS AND ANIMAL PRODUCTS

CHAPTER I--ANIMAL AND PLANT HEALTH INSPECTION SERVICE, DEPARTMENT OF AGRICULTURE

PART 3--STANDARDS--Table of Contents

Subpart A--Specifications for the Humane Handling, Care, Treatment, and Transportation of Dogs and Cats

Sec. 3.6 Primary enclosures.

Primary enclosures for dogs and cats must meet the following minimum requirements:

(a) General requirements.
   (1) Primary enclosures must be designed and constructed of suitable materials so that they are structurally sound. The primary enclosures must be kept in good repair.
   (2) Primary enclosures must be constructed and maintained so that they:
      (i) Have no sharp points or edges that could injure the dogs and cats;
      (ii) Protect the dogs and cats from injury;
      (iii) Contain the dogs and cats securely;
      (iv) Keep other animals from entering the enclosure;
      (v) Enable the dogs and cats to remain dry and clean;
      (vi) Provide shelter and protection from extreme temperatures and weather conditions that may be uncomfortable or hazardous to all the dogs and cats;
      (vii) Provide sufficient shade to shelter all the dogs and cats housed in the primary enclosure at one time;
      (viii) Provide all the dogs and cats with easy and convenient access to clean food and water;
      (ix) Enable all surfaces in contact with the dogs and cats to be readily cleaned and sanitized in accordance with Sec. 3.11(b) of this subpart, or be replaceable when worn or soiled;
      (x) Have floors that are constructed in a manner that protects the dogs’ and cats’ feet and legs from injury, and that, if of mesh or slatted construction, do not allow the dogs’ and cats’ feet to pass through any openings in the floor;
      (xi) Provide sufficient space to allow each dog and cat to turn about freely, to stand, sit, and lie in a comfortable, normal position, and to walk in a normal manner; and
      (xii) Primary enclosures constructed on or after February 20, 1998 and floors replaced on or after that date, must comply with the requirements in this paragraph (a)(2). On or after January 21, 2000, all primary enclosures must be in compliance with the requirements in this paragraph (a)(2). If the suspended floor of a primary enclosure is constructed of metal strands, the strands must either be greater than 1/8 of an inch in diameter (9 gauge) or coated with a
material such as plastic or fiberglass. The suspended floor of any primary enclosure must be strong enough so that the floor does not sag or bend between the structural supports.

(b) Additional requirements for cats—

(1) Space. Each cat, including weaned kittens, that is housed in any primary enclosure must be provided minimum vertical space and floor space as follows:

(i) Prior to February 15, 1994 each cat housed in any primary enclosure shall be provided a minimum of $2\frac{1}{2}$ square feet of floor space;

(ii) On and after February 15, 1994:

(A) Each primary enclosure housing cats must be at least 24 in. high (60.96 cm);
(B) Cats up to and including 8.8 lbs (4 kg) must be provided with at least 3.0 ft$^2$ (0.28 m$^2$);
(C) Cats over 8.8 lbs (4 kg) must be provided with at least 4.0 ft$^2$ (0.37 m$^2$);

(iii) Each queen with nursing kittens must be provided with an additional amount of floor space, based on her breed and behavioral characteristics, and in accordance with generally accepted husbandry practices. If the additional amount of floor space for each nursing kitten is equivalent to less than 5 percent of the minimum requirement for the queen, such housing must be approved by the attending veterinarian in the case of a research facility, and, in the case of dealers and exhibitors, such housing must be approved by the Administrator; and

(iv) The minimum floor space required by this section is exclusive of any food or water pans. The litter pan may be considered part of the floor space if properly cleaned and sanitized.

(2) Compatibility. All cats housed in the same primary enclosure must be compatible, as determined by observation. Not more than 12 adult nonconditioned cats may be housed in the same primary enclosure. Queens in heat may not be housed in the same primary enclosure with sexually mature males, except for breeding. Except when maintained in breeding colonies, queens with litters may not be housed in the same primary enclosure with other adult cats, and kittens under 4 months of age may not be housed in the same primary enclosure with adult cats, other than the dam or foster dam. Cats with a vicious or aggressive disposition must be housed separately.

(3) Litter. In all primary enclosures, a receptacle containing sufficient clean litter must be provided to contain excreta and body wastes.

(4) Resting surfaces. Each primary enclosure housing cats must contain a resting surface or surfaces that, in the aggregate, are large enough to hold all the occupants of the primary enclosure at the same time comfortably. The resting surfaces must be elevated, impervious to moisture, and be able to be easily cleaned and sanitized, or easily replaced when soiled or worn. Low resting surfaces that do not allow the space under them to be comfortably occupied by the animal will be counted as part of the floor space.

(5) Cats in mobile or traveling shows or acts. Cats that are part of a mobile or traveling show or act may be kept, while the show or act is traveling from one temporary location to another, in transport containers that comply with all requirements of Sec. 3.14 of this subpart other than the marking requirements in Sec. 3.14(a)(6) of this subpart. When the show or act is not traveling, the cats must be placed in primary enclosures that meet the minimum requirements of this section.

(c) Additional requirements for dogs—

(1) Space.

(i) Each dog housed in a primary enclosure (including weaned puppies) must be provided a minimum amount of floor space, calculated as follows: Find the
mathematical square of the sum of the length of the dog in inches (measured from the tip of its nose to the base of its tail) plus 6 inches; then divide the product by 144.

The calculation is: \((\text{length of dog in inches} + 6) \times (\text{length of dog in inches} + 6) = \text{required floor space in square inches. Required floor space in inches}/144 = \text{required floor space in square feet.}\)

(ii) Each bitch with nursing puppies must be provided with an additional amount of floor space, based on her breed and behavioral characteristics, and in accordance with generally accepted husbandry practices as determined by the attending veterinarian. If the additional amount of floor space for each nursing puppy is less than 5 percent of the minimum requirement for the bitch, such housing must be approved by the attending veterinarian in the case of a research facility, and, in the case of dealers and exhibitors, such housing must be approved by the Administrator.

(iii) The interior height of a primary enclosure must be at least 6 inches higher than the head of the tallest dog in the enclosure when it is in a normal standing position. Provided That, prior to February 15, 1994, each dog must be able to stand in a comfortable normal position.

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(2) Compatibility. All dogs housed in the same primary enclosure must be compatible, as determined by observation. Not more than 12 adult nonconditioned dogs may be housed in the same primary enclosure. Bitches in heat may not be housed in the same primary enclosure with sexually mature males, except for breeding. Except when maintained in breeding colonies, bitches with litters may not be housed in the same primary enclosure with other adult dogs, and puppies under 4 months of age may not be housed in the same primary enclosure with adult dogs, other than the dam or foster dam. Dogs with a vicious or aggressive disposition must be housed separately.

(3) Dogs in mobile or traveling shows or acts. Dogs that are part of a mobile or traveling show or act may be kept, while the show or act is traveling from one temporary location to another, in transport containers that comply with all requirements of Sec. 3.14 of this subpart other than the marking requirements in Sec. 3.14(a)(6) of this subpart. When the show or act is not traveling, the dogs must be placed in primary enclosures that meet the minimum requirements of this section.

(4) Prohibited means of primary enclosure. Permanent tethering of dogs is prohibited for use as primary enclosure. Temporary tethering of dogs is prohibited for use as primary enclosure unless approval is obtained from APHIS.

(d) Innovative primary enclosures not precisely meeting the floor area and height requirements provided in paragraphs (b)(1) and (c)(1) of this section, but that provide the dogs or cats with a sufficient volume of space and the opportunity to express species-typical behavior, may be used at research facilities when approved by the Committee, and by dealers and exhibitors when approved by the Administrator.

(Approved by the Office of Management and Budget under control number 0579-0093)


Animal Health and Husbandry Standards