The requirements of the Animal Welfare Act Regulations and the recommendations of the *Guide for the Care and Use of Laboratory Animals* provide a flexible framework for institutions to design their approach to meeting the exercise and socialization needs of dogs used in biomedical research. The University of North Carolina at Chapel Hill has selected two basic approaches that both utilize the environment of the primary enclosure (e.g., pen or run) to satisfy the exercise and socialization provisions under the AWA Regulations and the "Guide" simultaneously. The written description of the UNC-Chapel Hill program has been contained in our AAALAC Program Description for more than a decade. This document serves to reaffirm and further clarify the methods deemed acceptable at UNC-Chapel Hill to ensure appropriate exercise and socialization of laboratory dogs.

Exercise and socialization are integral to the following dog housing practices used at UNC-Chapel Hill according to current AWA Regulations and "Guide" recommendations. In these situations, the space available to individual dogs will meet or exceed the space requirements for the dog calculated according to the formula given in the Animal Welfare Act regulations.

**Option 1**

Pair housing of dogs will be used when the compatibility of pairs can be reasonably assured from vendor supplied information or from behavioral observations by DLAM or other experienced personnel and when pair housing is compatible with the scientific use of the animals. When dogs are housed in compatible pairs, the pen/run space will provide the sum of 100% of the space allocated to each dog by the AWA formula. (This formula is the length of the dog from the tip of its nose to the base of its tail plus six inches squared divided by 144 yielding the enclosure size in square feet.) Male and female dogs may be housed together for breeding according to an approved protocol or for socialization. Males and females paired only to provide social housing must be separated during estrus to prevent inadvertent breeding. In these circumstances, experienced personnel should check as frequently as necessary to monitor for the onset of proestrus to allow the removal of the female until the end of estrus. Records of estrus cycle monitoring must be maintained for IACUC review.
**Option 2**

Singly housing dogs in pens/runs that provide 200% of the space that is required for the dog according to the AWA formula to satisfy the AWA exercise requirement is acceptable if pair housing is not feasible due to scientific, behavioral or disease control reasons. The pens/runs should be arranged to afford the dogs the opportunity for visual, auditory, olfactory and tactile contact. When a dog is held in isolation for any reason, other forms of enrichment should be provided to compensate for the absence of conspecifics. Generally, this should include enrichment of the pen/run environment and a minimum of 30 minutes of positive interaction with animal care or research staff during the day.

**Exemptions**

A dog may be housed under conditions which do not conform to the above options if in the opinion of the attending veterinarian this would benefit the dog's health, condition or well-being. It is only under these circumstances that dogs may be housed in cages in the UNC-Chapel Hill program. In these cases, the exemption may not be granted for a period of greater than 30 days unless the basis for the exemption is a permanent condition. In general, the cage used during the period of exemption should meet the space recommendations of the "Guide" (8 sq ft for dogs under 15 kg; 12 sq ft for dogs between 15 and 30 kg) unless a stricter space restriction (on mobility) is a medical need. In the case of exemptions, the clinical record must clearly state the reason for granting the exemption, the anticipated duration of the exemption and whether no or limited exercise is permitted. E-mail correspondence covering these issues as a supplement to the clinical records is also considered acceptable.

The use of cages for dog housing along with a defined exercise program, although permitted under the AWA regulations, is not condoned within the UNC-Chapel Hill program of veterinary care as a routine method for handling the care of canines. Also, although exemptions to housing and exercise may be granted by the attending veterinarian, exemptions to the provisions for dog socialization should be limited to the rare and unusual circumstances when a dog develops aggression towards other dogs and humans.