University of Cincinnati
Institutional Animal Care & Use Committee

Storage of Diets Outside LAMS

Reporting Diet Storage Location
*The Guide for the Care and Use of Laboratory Animals,* 8th ed., states that “Exposure to temperatures above 21°C (70°F), extremes in relative humidity, unsanitary conditions, light, oxygen, and insects and other vermin hasten the deterioration of food.” “Bedding and food should be stored in a separate area free from vermin and protected from the risk of contamination from toxic or hazardous substances.” The IACUC, must know the location where diets are stored outside of LAMS in order to regularly monitor the storage conditions and food expiration. Please submit IACUC Form #F-03 Storage of Diets Outside LAMS.

Bulk Storage Conditions

Storage Area Requirements

- bulk storage of diet (> 2 wks) refers to diet caches that are not placed on animal cages or temporarily being held in animal rooms to replenish animal cage feeder bins
- the bulk storage space should be clean, and sealed so as to be free of insects, rodents, or other vermin
- all diets should be stored off the floor on pallets, racks, or carts and protected from strong natural or artificial light *(e.g. the original shipping box or a storage bin that is capable of blocking out light)*
- opened diet should be stored in a sealed container and protected from prolonged exposure to light *(e.g. twist tied in the original plastic liner bags inside of boxes or in a sealable plastic tote bin container)*
- no volatile or extremely toxic chemicals or biological agents should be stored in the refrigerator or refrigerated walk-in box or in immediate proximity of rodent diets when being stored at room temperature – contaminants in diets can have dramatic effects on biochemical and physiologic processes, even if contaminants are present in concentrations too low to cause clinical signs of toxicity
- cold storage walk-in boxes, conventional refrigerators, and freezers should be temperature sensor alarmed to alert mechanical failure, while room temperature storage areas need to be electronically monitored (RENO1 sensored) to alert and indicate out of range temperature

- diets that the manufacturer recommends be stored at room temperatures, for example, open formula (e.g. NIH -07) and closed formula (e.g. LabDiet #5002) natural ingredient based diets should be maintained at or below 70°F (21°C) with the relative humidity at approximately 50% or below
- diets that the manufacturer recommends or requires cold temperature storage, for example, semi-purified and purified open formula (e.g. AIN-76 or AIN-93) diets should be maintained between 39°F to 46°F (4°C to 8°C) or frozen 0°F (-18°C to -20°C) with the relative humidity at approximately 50% or below

Shelf Life

- diets must be discarded on the posted expiration date or no longer than 6 months past the manufacturers mill date - for most diets the maximum recommended shelf life is 6 months from the date of manufacture (mill date) regardless of storage temperature unless otherwise specified by the manufacturer
- labs should emphasize the expiration date of a diet by either labeling the expiration date on the diet container or circle the manufacturers posted expiration date to draw attention to this important parameter
- if diets are removed from the original shipping container (cardboard box) and will be stored in the original plastic liner bags the expiration date or mill date should be labeled on each plastic liner bag

† UC REmote Notification Option environment monitoring system