



## **GUIDELINES FOR TESTING CHAMBERS**

Testing chambers that are used for experimental treatment of rodents for periods of time longer than 24 hours must follow the specific guidelines detailed below. When possible, such chambers should be maintained within the main animal facility without creating a satellite facility. One such example is a “hypoxia” environment into which a cage of rodents is placed for several days to deliver a reduced level of oxygen that mimics high altitude conditions. Such a housing arrangement may require modified racks, alternate room arrangements, as well as access and training for BRF staff to perform husbandry in addition to the required daily observations by the protocol investigators. The following considerations regarding use of testing chambers are essential and must be described in the animal protocol:

- If animals must be kept within a chamber for greater than 24 hours, it is now considered the macro-environment of the animal and the parameters inside the chamber may be different from the surrounding room. Therefore, environmental parameters within the chamber must be documented. A portable hygrometer can be mounted inside the chamber and daily documentation of temperature and humidity must be recorded. The records must be available for BRF staff and filed for record keeping when experiments are completed.
- If animals are housed in a testing chamber with its own ventilation or modified air supply, the functioning of the fan and other equipment must be checked at least once per day. If the chamber is supplied by gas tanks, gas input levels and remaining supply must be checked at least once per day.
- If the testing chambers rely on an electrical source for appropriate function, they should be plugged into electrical outlets that are serviced by the facility emergency power supply.
- Emergency procedures must be in place to preserve animal welfare if a testing chamber fails. For a hypoxia chamber this might include features such as a chamber auto-open or rapid reversion to room air supply if the gas mixture or tank fails.
- Animals must be observable at any time. This can be accomplished by transparent chambers or chambers with a viewing window (e.g. Plexiglas). An SOP for opening a chamber must be provided for the veterinary and BRF staff.
- If required, husbandry practices may be performed by the laboratory upon prior arrangement and training from BRF management), but BRF staff will also provide daily checks of animals in testing chambers.