TITLE: USE AND MAINTENANCE OF THE EUTHANEX EUTHANASIA SYSTEM

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I. Objective: To describe procedures to be followed for the routine maintenance and use of the Euthanex euthanasia equipment. The following procedures are in compliance with the NRC, Guide for the Care and Use of Laboratory Animals, 1996; the AVMA Guidelines for Euthanasia, 2000; and the PHS Policy on Humane Care and Use of Laboratory Animals: Clarification Regarding Use of Carbon Dioxide for Euthanasia of Small Laboratory Animals (July 17, 2002).

II. General Information: The Euthanex system may be used for the euthanasia of rodents, rabbits, chickens and other species if CO2 euthanasia is approved in the animal use protocol for a project. The approved method of euthanasia in the animal use protocol must be followed unless otherwise directed by the attending veterinarian. Instructions for use are posted on the Euthanex unit.

ONLY INDIVIDUALS WHO HAVE RECEIVED TRAINING FROM RESEARCH SERVICES VETERINARIANS OR SUPERVISORS ON THE USE OF CO2 EUTHANASIA ARE APPROVED TO USE THIS EQUIPMENT WITHOUT SUPERVISION.

III. EQUIPMENT:

- Euthanex mixing station with cart
- Large and small cage lids
- Carbon Dioxide (CO2) Cylinder
- Oxygen (O2) Cylinder
- Pressure Regulators

IV. PROCEDURES:

1. Check pressure readings to ensure that the oxygen and carbon dioxide cylinders are appropriately charged.

2. Animals to be euthanized should be brought to the procedural area in a cage or carrier. If additional sedatives or anesthesia are required, they should be administered and animals returned to cage or carrier until desired effect.

3. The Euthanex system does not require pre-charging cages or chambers.

4. Set oxygen and carbon dioxide flow rates according to instructions on the unit.

5. Place appropriate Euthanex lid on the cage or chamber containing animal(s) to be euthanized. Set CO2 to 70% and set timer for 90 seconds. Animal should be unconscious at this time. If not, reset timer for another 30 seconds and recheck.
6. After the timer goes off and animal is unconscious, set CO2 concentration to 100% and set timer for 90 to 120 seconds.

7. Animals should be left in the closed chamber at least 5 minutes after all movement and respiration has stopped.

8. Death should be ensured by checking for a pulse and/or heartbeat. When no pulse, respiration or heartbeat is detectable, perform a bilateral pneumothorax, cervical dislocation or decapitation to ensure death. After death has been assured, remove animal and bag securely for disposal. Take cages to the cage wash area.

9. Turn off the Euthanex gases. Check the cylinder valves to be sure that they are securely closed. Clean the inside of the Euthanex chamber thoroughly with a disinfectant/cleaner solution. In some instances the chamber will need to be removed and taken to the cagewash area for cleaning.