

## Appendix S

### LABORATORY ANIMAL USE TRAINING REQUIREMENTS AND SAFETY GUIDELINES

#### Training Requirements for Individuals Caring for Animals in Which Radioactivity is Used

Personnel caring for animals in which sealed sources of radioactivity are used shall:

1. Read the handbook "Radiation Safety for Radiation Workers" and pass the associated exam.
2. Read the manual "Guide to the Responsible Care and Use of Animals in Teaching and Research at UWM" and pass the associated exam.
3. Be shown a "dummy source".
4. Be told to report to Radiation Safety and the authorized user immediately if sources seem/become loose, or the animal is bleeding, etc.
5. Be shown how to care for the animal and what they are supposed and not supposed to do.
6. Be shown how to use a radiation survey meter.
7. Be shown appropriate labeling for cage/area/room.

Personnel caring for animals in which unsealed source of radioactivity are used shall:

1. Read the handbook "Radiation Safety for Radiation Workers" and pass the associated exam.
2. Read the manual "Guide to the Responsible Care and Use of Animals in Teaching and Research at UWM" and pass the associated exam.
3. Be told to report to Radiation Safety and the authorized user immediately if the animal is bleeding, is loose from its cage, or if the urine or feces of the animal are outside of the cage/pan, etc.
4. Be shown how to care for the animal and what they are supposed and not supposed to do.
5. Be shown how to use a radiation survey meter, if applicable.
6. Be shown appropriate labeling for cage/area/room.

#### Safety Guidelines for Work Involving Radioactive Sealed Sources in Animals

For each protocol involving the use of sealed sources in animals, the authorized user shall:

1. Maintain an adequate source inventory system to account for all sources. Sources must be inventoried at least each time the animal(s) are moved from one room/area/cage to another room/area/cage while the sources are still in the animal.
2. Perform a meter survey in rooms where the animal is housed to determine the exposure levels for appropriate labeling of the room (e.g., "Radiation Area").
3. Perform meter surveys to assure that radiation exposure in all adjacent areas are within legal limits, less than 100 mrem per year and 2 mrem per hour.
4. Each cage must be labeled as follows:
  - "Caution - Radioactive Materials" Label
  - Radionuclide and amount implanted.

- Date Implanted.
  - Name and phone number of authorized user.
5. Survey animal waste before disposal, or hold the waste until the end of the experiment when all sources are accounted for. Survey all other materials before they are removed from the animal housing area.
  6. Do meter survey of animals after the sources have been removed.
  7. Ensure that personnel caring for animals have received required training.
  8. If animal is moved to a different authorized room/area/cage, survey the vacant room/area/cage to confirm that no sources were left behind.
  9. The animals must be marked until the sources are tested for leakage. If the sources are found leaking the animal must remain marked and must be disposed of through Radiation Safety upon death or sacrifice.

Safety Guidelines for work Involving Radioactive Materials in Animals Other Than Sealed Sources:

1. When administering high energy beta or gamma emitters, perform meter survey in rooms where the animal is housed to determine the exposure levels for appropriate labeling of the room (e.g. "Radiation Area"), if appropriate.
2. When administering high energy beta or gamma emitters, perform meter surveys to assure that radiation exposure in all adjacent areas are within legal limits, less than 100 mrems per yea and 2 merems per hour, if appropriate.
3. Each cage must be labeled as follows:
  - "Caution - Radioactive Materials" label.
  - Radionuclide and amount administered.
  - Date Administered.
  - Name and phone number of authorized user.
4. Animal waste, urine, feces, blood contaminated dressings should be treated and handled as contaminated until surveys show otherwise.
5. Ensure that personnel caring for animals have received required training.
6. If animal is moved to a different authorized room/area/cage, survey the vacant room/area/cage to look for contamination.
7. The animal must be marked and must be disposed of through Radiation Safety upon death or sacrifice.