

## **Auxiliary Health Issues Summary: Miscellaneous Hazards**

### **Purpose**

When thinking of occupational health issues that affect users of animals and their tissues, one typically considers those of an infectious nature or those related to allergic reactions. Yet, animal facilities and the types of procedures generally conducted may expose personnel to additional risks that need to be addressed. These risks include those related to chemical, radiological, and physical hazards.

### **Radiological Hazards**

1. Studies involving the use of radioisotopes in animals are conducted at Freimann Life Science Center (FLSC). Under such circumstances, studies must be carried out, and materials handled in accordance with the requirements of the Nuclear Regulatory Commission (NCR).
2. Specific procedures must be developed for administration of radioisotopes to animals, housing of animals, and disposal of wastes. Any such use of animals may be conducted only after approval from the Risk Management and Safety office (1-5037).
3. All personnel in direct contact with radioisotopes are required to complete the University's Radiation Safety Program and wear radiation exposure monitoring devices (rings, badges, or both).

### **Chemical Hazards**

1. Studies involving hazardous chemicals are sometimes conducted in animals at FLSC. It is important that all involved, including the principal investigator, laboratory personnel and FLSC staff are aware of the hazardous agent being used and procedures to safely work with the chemical, the exposed animals, and animal wastes. The principal investigator should contact the Risk Management and Safety office (1-5037) and FLSC (1-6085) to develop appropriate handling procedures. Once procedures have been developed, all personnel with potential exposure to the chemical, the exposed animals and their wastes should be provided this specific information.
2. Animal facilities such as FLSC generally have additional chemical hazards associated with disinfection procedures. Many of the chemicals used in disinfection of cages are toxic and/or irritating.
3. Personnel handling these agents should wear appropriate Personal Protective Equipment (PPE) in accordance with posted PPE requirements.
4. PPE may include: goggles or safety glasses alone or under a full face shield, nitrile or neoprene gloves, a lab coat/garment which covers the arms, or a rubberized apron.
5. Contact with disinfectant chemicals may result in chemical burns or hypersensitivity reactions. Affected individuals should contact the Compliance/Technical Services Team Lead and consult the SDS (located in the FLSC-Galvin hallway next to the employee break room, in the FLSC – Galvin basement hall near room 514, or in FLSC – Raclin next to room 013 in the hallway), for specific recommendations to effectively deal with the exposure.

### **Physical Hazards**

Working within a typical animal facility exposes personnel to various types of physical hazard risks. These risks are mitigated with appropriate protective steps.

### **Thermal hazards**

1. High temperatures are generated by equipment including cage washers, autoclaves, and glass-bead sterilizers for surgical instruments. When near such equipment, personnel should take precautions to avoid direct contact with heated materials.
2. Appropriate PPE is required when there is a risk of thermal injury. PPE may include: insulated gloves for autoclave use, insulated cryogloves for use with liquid nitrogen or dry ice.
3. Individuals suffering a thermal burn should contact the Compliance/Technical Services Team Lead (1-6087) and their Team Lead for appropriate action.

### **Sharps hazard**

1. Risk of puncture injury exists from a variety of objects, including but not limited to broken glass, scalpel blades, hypodermic needles and glass Pasteur pipettes. To minimize this risk, sharp objects should be disposed into designated puncture-resistant containers.
2. **Do not recap needles;** rather, dispose of needles uncapped directly into the sharps container or use a mechanical barrier system to prevent needle stick injuries.
3. Needle stick injuries are an OSHA reportable event and **MUST** be reported to the Compliance/Technical Services Team Lead (1-6087) and your Team Lead for appropriate action.

### **Ergonomic hazards**

1. Ergonomic hazards exist such as those from injuries incurred during lifting or from repetitive motions.
2. Individuals desiring aid devices to help reduce the risk of such injuries, such as back braces or wrist braces, should contact the FLSC office (1-6085) or the Risk Management and Safety office (1-5037).
3. Individuals experiencing an ergonomic injury should contact the Compliance/Technical Services Team Lead (1-6087) and their Team Lead for appropriate action.

### **Auditory hazards**

1. Significant noise is generated by certain equipment within the typical animal facility. For example, the operation of cage washers, bedding machines, and vacuums generate noise levels which could be injurious.
2. Although no equipment at FLSC exceeds the OSHA limits that would mandate hearing protection or enrollment into the hearing conservation program, individuals are encouraged to wear hearing protection when exposed to this equipment.
3. Ear plugs are available in the clean side cage wash areas.

### **Summary**

A number of significant risks exist within animal facilities such as FLSC. Simple precautions to minimize the risks should be taken by personnel. In all cases, if questions or concerns arise, personnel should contact the Compliance/Technical Services Team Lead (1-6087) or the Director of FLSC (1-6085) or the Risk Management and Safety office (1-5037).