Personal Protection Equipment Standards for Freimann Life Science Center Facilities

Users: All personnel and maintenance workers entering the facilities, animal rooms, procedures rooms and cage wash areas are subject to proper personal protective equipment (PPE) attire.

Overview:

1. To maintain a clean and safe environment for both personnel and animals, to maintain the health integrity of Freimann Life Science Center and Raclin-Carmichael Hall facilities
2. Individual clothing and personal protective equipment (PPE) requirements are determined by risk assessments of the workplace and hazards. Review of SDS or other suitable information and assessments were done by facility management and Risk Management of UND.
3. Consult appropriate signage at the entrance of animal rooms, procedure rooms, cage wash areas or other required PPE designated areas.
4. Clothing and PPE designated for the animal facilities should not be worn in public areas.
5. To minimize potential contamination with allergens and pathogens from being transmitted outside the facility and into clean areas, such as eating or office areas.

Procedures:

A. General attire and outer protective clothing
    1. Wear dedicated work clothes or outer protective clothing (e.g. lab coat, scrubs or disposable gown) when entering animal facilities with the intent of animal use or observations.
    2. Long pants or long skirt that reaches the ankles must be worn within the facility

B. Footwear
    1. Closed toed shoes with an enclosed heel must be worn within the facility.
    2. Shoe covers at the main entrances are mandatory.
    3. Shoe covers are not required in the aquatic areas
    4. Cage wash areas – booties required
    5. BSL-2 areas
        a. Freimann (cubicle rooms): booties required during all activities when animal caging is open
        b. Raclin-Carmichael (open bubble room): booties required for all activities
    6. Clean rooms areas – booties required
    7. If leaving the confines of the facility wearing dedicated shoes, booties must be worn outside the facility (e.g. offices and outside lab areas)
    8. All booties worn over street shoes within the facility will be removed when exiting the facility

C. Hands
    1. Wear gloves whenever there is contact with animals, caging/equipment, urine, feces, blood or biological fluids, infectious, chemical or radioactive hazards
    2. Nitrile gloves are required in the aquatics when in contact with fish, frogs or their water source
    3. Change gloves frequently to minimize fomite contamination within the animal room (e.g. per strain)
    4. Double gloves are required in BSL-2 for cage changing. See specific SOP for nitrile glove use
    5. Double nitrile gloves are required in BSL-3
    6. In cage wash areas wear insulated neoprene gloves to remove hot items
    7. With autoclave use wear heat resistant terry cloth gloves or insulated silicone gloves to remove cart and items, except at cold start.
    8. Wear cryogenic gloves when handling liquid nitrogen or dry ice

9. Wash hands thoroughly with soap and water

D. Face, Eyes
    1. Safety glasses are to be worn in all cage wash areas.
    2. Safety glasses will be worn in animal areas when chemicals (e.g. alcohol and diluted quatracide) or injectable compounds are administered.
    3. Safety glasses in the aquatic facility are required for all splash hazard areas
    4. Add a face shield over safety glasses when there is a potential for a splash hazard
E. Respiratory protection
    1. A surgical mask is required to enter all animal rooms and dirty side cage wash areas
    2. All personnel entering the facility (with the purpose of animal use) that have known animal allergies must be fit tested with respiratory protection and wear a disposable or non-disposable respirator (N95, full face, half face, PAPR)
    3. N95's will be made available for all personnel desiring additional personal protection. A voluntary use form must be filled and submitted to Risk Management and Safety to exempt them from the respiratory protection plan
F. Hearing
    1. Hearing protection may be necessary when working in areas where noise may be a concern (e.g. cage wash areas, equipment and large animals)
    2. Personnel who are exposed to 85 decibels or greater when averaged over an 8 hour work day will need ear protections
    3. There are currently no areas identified in FLSC or RCH that require mandatory ear protection
    4. Noise certification level though Risk Management & Safety is performed every 3 years
    5. Hearing protection is available in all cage wash locations

Specific Locations for PPE requirements

G. To enter the facility
    1. Booties
    2. Lab coat, disposable gown or scrubs with the intent of entering areas with animals or cage wash areas
H. Prior to entering animal rooms - mammals
    1. Booties or dedicated shoes
    2. Buttoned lab coat, scrubs or disposable gown
    3. Surgical mask
I. Handling animals in housing areas which includes all breeding areas
    1. Booties or dedicated shoes
        a) additional booties or dedicated shoes are required to enter breeding areas
    2. Buttoned lab coat, scrubs or disposable gown
    3. Surgical mask
    4. Gloves
J. Dirty side cage wash – to enter
    1. Additional booties
    2. Safety glasses
    3. Surgical mask
    4. **Inside** - Wear gloves to handle all caging material and dump cages in a certified HEPA-filtered dumping station.

5. **Inside** - Wear face shield over safety glasses and chemical resistant apron for chemical splash hazards normally performed in spray down areas within cage wash
6. **Inside** - Use nitrile gloves for all chemical use

K. Clean side cage wash- to enter
1. Freshly cleaned scrubs
2. Additional booties
3. Safety glasses
4. **Inside**-Wear gloves to handle all caging material and bedding
5. **Inside**-Wear surgical mask to handle all bedding material
6. **To re-enter after exposure from animal rooms or dirty side cage wash, for the purpose to unload machines, stack caging and move equipment**
    a) Don disposable coveralls to unload machines and stack caging
    b) Don required PPE as indicated above

L. Clean room areas- (033 bubble, 414/413) to enter from ante-room
1. For the purpose of observation only - Don
    a. Additional booties
    b. Disposable isolation gown (remove lab coat)
2. For the purpose of husbandry or procedural duties – Add
    a. Sterile gown as indicated per SOP (remove lab coat)
    b. Surgical mask
    c. Bouffant
    d. Gloves- use sterile gloves as indicated per SOP

M. Procedure rooms including surgical suites
1. Refer to FLSC SOP's regarding mandated PPE for specific procedures

N. Bio-Safety Level-2 (BSL-2) apply in ante room (RCH-027) or a closed cubicle room (FLSC-463): For the purpose of husbandry duties and observation
1. At Freimann location (cubicle rooms): booties required during all activities when animal caging is open (post changing signs on exterior doors)
2. At Raclin-Carmichael location (open bubble room): booties required for all activities
3. Disposable gown – apply over existing scrubs or lab coat
4. Surgical mask when handling animals or observing unopened caging
5. Safety glasses
6. Double gloves for husbandry. See specific SOP for nitrile glove use.
7. Bouffant

O. Handling biohazard waste
1. Dedicated lab coat to transport wrapped waste to the autoclave
2. Surgical mask
3. Safety glasses
4. Gloves
5. When a cart is used to transport biohazard waste, disinfect with Chlorine Dioxide (see SOP).
6. Wash hands thoroughly with soap and water.

P. Aquatics- cage wash area – to enter
1. Lab coat, disposable gown or scrubs
2. Safety glasses
3. Wear gloves to handle all aquatic equipment and tanks
4. Wear face shield over safety glasses and chemical resistant apron for chemical splash hazards

Q. All Aquatic areas

1. Nitrile gloves for handling fish, frogs, chemicals and all related duties regarding aquatic water supplies. **Note:** latex and powered gloves can be toxic to some aquatic species.
2. Use longer nitrile gloves as needed for:
    a) Flipping fish
    b) Spraying filter pads
    c) Changing carbon and particulate filters
    d) Collecting and processing shrimp and rotifers
    e) Changing tanks and spraying lids
3. Safety glasses are worn for all aquatic splash hazard areas as mentioned above.
4. All personnel without dedicated shoes and maintenance workers going to the first floor of Freimann via aquatics area will need to don booties located in the stairwell.
    a) FLSC aquatic staff will replace shoes with a pair dedicated shoes for the upstairs when leaving the basement area.
    b) All non-aquatic staff entering the aquatic area to work, will have a dedicated pair of shoes for the aquatic area.

3-31-2016 VM/LKP(RMS)

PPEPolicy16