Entry and Exiting Animal Housing Areas

Last Updated 15 April 2016

1. Purpose

   Procedures for entry and exiting animal housing areas, including: handling or changing scrubs and showering.

2. Definitions

   a. **Conventional animals**: Animals with an undetermined microbiological status; animals are raised and maintained under standard conditions.
   
   b. **Disinfectant**: Bleach solution or Clidox.
   
   c. **Green or clean rooms**: Animal rooms clean from any contaminants such as MPV, Pinworm, Orf, Q-Fever etc.
   
   d. **Micro-isolation technique (MI)**: A method of housing and handling animals to maintain their SPF status (see Appendix A).
   
   e. **Non-rodent mammal**: rabbit, ferret, dog, cat, swine, sheep, cow, non-human primate etc.
   
   f. **Non-rodent mammals conditioned**: Animals with known health history.
   
   g. **Non-rodent mammals non-conditioned**: Animals with unknown health history.
   
   h. **Quarantine animal**: Animals with disease or unknown health status.
   
   i. **Red or contaminated rooms**: Animals in rooms known to be contaminated with a virus, parasite or bacteria. Red sign indicates the contamination status and is placed on the door.
   
   j. **Nude/SCID rooms**: Room that houses immunodeficient mice.
   
   k. **Specific Pathogen Free (SPF)**: Animal which is free of the specific pathogens tested for in Unit for Laboratory Medicine's rodent health surveillance program.
   
   l. **Yellow or potentially contaminated rooms**: Previously contaminated animal room and is now believed to be free from any contaminants. Prior to contamination status release, surveillance results must confirm "clean" status. Certain viral outbreaks may have insufficient information regarding the virus and require animal rooms to placed in "potentially contaminated" state at the discretion of the area veterinarian.

3. Procedures

   a. **Animal Room Entry Procedures**
      
      i. Entry procedures must be followed in order to maintain the health status of all animals.
      
      1. Hang personal items such as lab coats, jackets, bags and hats outside the room.
      
      2. Follow the designated personal protective equipment (PPE) listed on the room entry procedures sign posted on the outside of the door and/or area entrance.
         a. Pull gloves over the cuff of the gown.
         b. Throw away cloth gown if it falls on the floor.
         c. Do not bring carts into nude mouse housing areas.
         d. Spray the laminar flow hood surface (for rodent rooms) before use with a disinfectant (Clidox, etc.).
         e. Use micro-isolation technique in all SPF rodent rooms (see Appendix A).
      
   b. **Animal Room Entry Order**
      
      i. Enter rodent rooms within a workday in the following order:
         1. Nude or SCID rodent rooms, SPF clean room (Green) rodent rooms, SPF potentially contaminated (Yellow) rodent rooms, SPF contaminated viral (Red) rodent rooms, SPF contaminated parasitic/bacterial (Red) animal rooms, conventional rodent rooms.
         2. Wear gown, gloves, shoe covers and hair bonnet when traveling to or from conventional animal facilities and SPF animal facilities throughout the day (see clothing procedures for additional information regarding conventional to SPF animal facility travel).
   
      ii. **Non-rodent Mammal Room Entry Order**
         1. Enter non-rodent mammal rooms (per species) within a workday, in the following order:
            a. Conditioned animal rooms, conditioned animal rooms currently in quarantine, non-conditioned, animal rooms that have completed quarantine, non-conditioned animal rooms currently in quarantine.
            b. Enter into shared species animal rooms by establishing which species has the health status that is the least known (i.e. pigs and sheep share a room, the sheep just arrived, yet pigs have been here for a few days. Enter the room after all of the other large animal rooms with known health status first, then enter the combined sheep and pig room).
            c. Change PPE when traveling between animal rooms with different vendors.
d. Change PPE between same species housed in the same room from different vendors.
   iii. If an employee is unable to wear PPE as required, departments provide alternate PPE if deemed to be at least as effective as the required equipment. If the employee is unable to wear PPE or an alternate is not acceptable to either party, then the employee will not be able to conduct the work tasks in which PPE is deemed necessary.
   iv. Animal Room Exiting Procedures:
      1. Remove and dispose of all PPE immediately prior to exiting the room, pod, hall or other designated area.

c. Animal Room Contamination
   i. Rodent Contamination:
      1. Parasitic:
         a. Don a disposable gown, gloves, hair bonnet and shoe covers prior to entering all rooms contaminated with pinworm (Syphacia spp., Aspiculuris spp.).
         b. Don a disposable gown and gloves after entering rooms contaminated with fur mites.
         c. Doff PPE based on building specific work procedures.
      2. Viral:
         a. Don disposable gown and gloves after entering a room where viral contaminants are present.
         b. Doff PPE based on building specific work procedures.
   ii. Non-rodent Mammal Contaminations:
      1. Place appropriate contamination signage on the door of the animal room if contaminants are present.
         a. Include don/doff procedures on door signage.
      2. Don required PPE prior to entering all contaminated non-rodent mammal animal rooms.
      3. Remove PPE based on contamination and OSEH risk assessment. See OSEH related contamination SOP.

d. Personal Hygiene and Clothing Procedures
   i. Showering:
      1. Shower, wash your hair and don clean scrubs, when traveling from an SPF pinworm contaminated room to a nude or SCID room.
      2. Shower, wash your hair and don clean scrubs, when traveling from a conventional rodent room to a nude, or SCID rodent room.
   ii. Clothing
         a. Wash and dry scrubs in research areas only. Scrubs must not be removed from University of Michigan campus.
         b. Change scrubs when traveling from:
            i. An SPF rodent room to a nude or SCID mouse room.
            ii. A contaminated SPF rodent room to a clean SPF rodent room.
            iii. Conventional rodent room to an SPF rodent room.
         c. Change scrubs, clean and disinfect boots and disinfect shoes if exiting a non-rodent mammal animal room containing a disease that may affect other animals in the facility.
         d. Change scrubs, clean and disinfect boots when entering a non-quarantined room from a quarantine room.
         e. Change scrubs prior to breaks and lunches if travel included:
            i. Contaminated rooms
            ii. Conventional rooms
            iii. Dirty side cage wash.
               1. Dirty side cage wash employees must change their scrubs when traveling from one dirty cage wash area to a different dirty cage wash area.
         f. Change scrubs after break or lunch if:
            i. Around members of different team or
            ii. Duties involve working in clean side cagewash.

4. Related Documents
   a. Small Animal Receiving
   b. Procedures for Feline Quarantine and Conditioning
   c. Procedures for Canine Quarantine and Conditioning
   d. Procedures for Sheep Quarantine and Conditioning
   e. Procedures for Nonhuman Primate Quarantine and Conditioning
   f. Animals Administered a Hazardous Substance Requiring Containment
   g. Room Sanitization SOP
   h. Procedures for Cleaning and Sanitizing Large Animal Rooms and Equipment
   i. Rodent Equipment Maintenance and Sanitization SOP
   j. Animal Care Identification and Communication Procedures
   k. Animal Room Chemical Procedures

5. Appendices
   a. Appendix A: Micro-isolator Technique (MI)
   b. Appendix B: Animal Room Status Descriptions
   c. Appendix C: Animal Room Contamination Sign
   d. Appendix D: Animal Room Potential Contamination Sign