

ANIMAL FACILITY DECONTAMINATION USING LIQUID DISINFECTANTS

The following procedures should be used when decontaminating facilities that have been contaminated with undesirable biological or infectious agents.

A list of required equipment includes autoclavable plastic bags, tape, cardboard boxes for waste, identification tags for infectious waste, disinfectant effective for the agent in question (Wescodyne, sodium hypochlorite (household bleach) or other appropriate disinfectant).

1. Protective clothing must be worn by all personnel performing the decontamination. Personnel involved in facility decontaminations are to wear full-face respirators fitted with appropriate filter cartridges while spraying chlorine solution. Personal protective clothing to be worn for chlorine decontamination includes rubber gloves, rubber boots, and fluid-proof coveralls such as a tyvek jumpsuit. The outer clothing (including jump suits, laboratory coats, coveralls, head covers, shoe covers, masks, and gloves) should be left in the room on exiting or should be placed in bags for disposal (preferably) of laundry after autoclaving.
2. Floors should be mopped with a disinfectant concentration of: 150 ppm available iodine (e.g., 6 ounces [178cm³] of Wescodyne to 5 gallons of water), or: 100 ppm free chlorine solution (e.g., 1 ounce [30cm³] chlorine bleach per 4 gallons of water). Generally, a one to one hundred dilution of chlorine bleach with water (~500 ppm) should be adequate to disinfect surfaces.
3. Prior to the decontamination process, all potentially wet waste material (e.g., dead animals) must be packaged in water-proof bags, boxed, and placed in proper waste carts for incineration, these boxes should be wiped with disinfectant as they are removed from the room. If the animals in the room had been infected with a zoonotic disease or an agent infectious to humans, waste materials and dead animals must be autoclaved before refrigerating them or placing them outside prior to pick-up and incineration by the army garrison staff.
4. Dry material (e.g., feed, bedding, and paper goods) must be packaged in plastic bags, boxed and prepared for incineration. These boxes should be wiped with disinfectant as they are removed from the room.
5. Non-permeable items (water bottles, sipper tubes, feeders) are to be immersed in a one to ten (~5,000 ppm active chlorine) chlorine bleach solution or other appropriate liquid disinfectant for the manufacturer's recommended contact time and then passed out of the room.
6. Exterior surfaces of items such as empty animal cages and cage racks, including wheels, should be sprayed with a 1:10, 5.25% sodium hypochlorite and tap water

solution or other appropriate disinfectant and may remain in the room throughout the procedure.

7. After the above steps are completed, the rooms are ready for decontamination. Before initiating the decontamination procedure, have all electricity locked and tagged out at the main switch box to prevent electrocution hazard.
8. Caution should be exercised to prevent wetting of electrical outlets, lights, and related equipment. Wipe light fixtures, switches, humidifier sensors, and electrical devices with disinfectant saturated toweling. Other surfaces (e.g., ceiling, walls, floors, exposed pipes, and ducts) should be washed and then sprayed with a disinfectant solution. Do not spray liquid in electric apparatus. If individuals need to spray disinfectant, full-face respirators should be utilized. Spray units are available from EHS.
9. Laminar flow cage racks can be decontaminated with guidance from EHS personnel.
10. Using two consecutive disinfectant washes increases the effectiveness of the decontamination process.

To reduce employee exposure and eliminate environmental release of carcinogenic sterilants, EHS strongly advocates the reduction of formaldehyde gas decontamination. Gaseous formaldehyde should be used only when a liquid decontamination is not feasible or appropriate. Gas decontamination may only be performed with EHS oversight.

Liquid disinfectants can be extremely effective when applied appropriately.

If you have any questions, contact EHS at x1451