

will display a loss of pressure below 0.25 inches water guage.

(3) Gloves will be changed at appropriate intervals (dependent on the box contents) to ensure they provide the protection needed.

(4) Inlets that provide dilution air will be protected by HEPA filters.

§ 627.55 Ventilated balance enclosures.

(a) *Description.* A ventilated balance enclosure is a box that surrounds a balance and has a small open area for access and handling material in the front. Air is exhausted out the rear of the enclosure.

(b) *Uses.* A ventilated balance enclosure is used when containment of a balance is required to weigh hazardous materials that have a low vapor pressure (such as toxins). These enclosures are also used when it is best to use the balance in other than a fume hood (due to the turbulence and vibration) and when biological safety cabinets or glove boxes are inappropriate or unavailable. Dry forms of toxins may be weighed in these enclosures.

(c) *Prohibitions.* Very volatile or highly toxic volatile materials must not be handled in ventilated balance enclosures unless they are placed in closed containers in a properly functioning fume hood before being transferred to the balance enclosure.

(d) *Additional certifications or requirements.* (1) The flow through the openings in the enclosure will be at least 60 lfpm and must average between 60 and 80 lfpm.

(2) Containment will be certified prior to first use and annually thereafter by smoke tubes.

(3) The air flow will be certified initially and semiannually by averaging readings taken from the face of the opening.

§ 627.56 Ventilated cage enclosures.

There are a number of cage-ventilated enclosures in which infected animals may be housed at levels corresponding to the various classes of biological safety cabinets. A brief description of four different types of animal ventilated cages is given below. This is not a complete description of all the different animal ventilated cages available. The proper functioning

of these will be tested initially, upon each connection to exhaust sources, and at least annually. The inward flow rates on the partial containment systems and pressure checks on the total containment cages will be performed. Prior to selecting such equipment, an evaluation of the function and the equipment should be made, and the methods for testing and decontamination should be analyzed and documented.

(a) *Filter-top cages.* Small laboratory animal polystyrene or polycarbonate cage bottoms are fitted with a dome shaped glass fiber or polyester filter cage cover. The dome shaped filters help reduce the dissemination of aerosols, and the spread of infectious agents. Adequate ventilation around cages fitted with a dome shaped filter is essential since they may contain elevated ammonia and carbon dioxide levels, and high temperature and humidity. Ventilation recommendations in the NIH publication 86-23, 1985 "Guide for the Care and Use of Laboratory Animals" will be followed.

(b) *Forced ventilation cages.* This is a small HEPA-filtered cage connected to a centralized exhaust system. A minimum airflow of 0.03 m³/min per cage is required. Ventilation rates may vary with the size of the cage, and the number and type of animals being housed.

(c) *Cubicle-type isolation cage.* This is a partial containment unit which holds several animal cages. This unit is a negative pressure HEPA-filtered stainless steel cage. A minimum airflow of 0.3 m³/min per cage is required for a 0.24 m³ unit. Ventilation rates may vary with the size of the cage and the number and type of animals being housed.

(d) *Total containment cage.* This unit is a negative pressure or positive pressure HEPA-filtered stainless steel cage which has the filters incorporated into the design. It is halogen gas-leak tight and can be considered a Class III biological safety cabinet. A minimum airflow of 0.3 m³/min per cage is required for a 0.24 m³ unit. Ventilation rates may vary with the size of the cage, and the number and type of animals being housed.