

OCCUPATIONAL EXPOSURE TO HAZARDOUS CHEMICALS IN LABORATORIES

Z

AO 12-1993

OAD 437, DIVISION 2

GENERAL OCCUPATIONAL SAFETY AND HEALTH RULES

SUBDIVISION Z – TOXIC AND HAZARDOUS SUBSTANCES

437-002-0391 Additional Oregon Rules for Carcinogens in Laboratories.

(1) Definitions.

“Absolute filter” is one capable of retaining 99.97 percent of a monodisperse aerosol of 0.3 μm particles.

For the purposes of OAR 437-002-0391, “carcinogen” is defined as the substances regulated by 29 CFR 1910.1003, 1910.1004, 1910.1006, 1910.1007, 1910.1008, 1910.1009, 1910.1010, 1910.1011, 1910.1012, 1910.1013, 1910.1014, 1910.1015, 1910.1016 and OAR 437-002-0364.

(2) Laboratory activities. The requirements of this section shall apply to research and quality control activities involving the use of a carcinogen.

(a) Mechanical pipetting aids shall be used for all pipetting procedures.

(b) Experiments, procedures and equipment which could produce aerosols shall be confined to laboratory-type hoods or glove boxes.

(c) Surfaces on which a carcinogen is handled shall be protected from contamination.

(d) Contaminated wastes and animal carcasses shall be collected in impervious containers which are closed and decontaminated prior to removal from the work area. Such wastes and carcasses shall be incinerated in such a manner that no carcinogenic products are released.

(e) All other forms of a carcinogen shall be inactivated prior to disposal.

(f) Laboratory vacuum systems shall be protected with disposable absolute filters. Exhaust systems containing such filters shall be provided with suitable ports or openings to enable determination of whether the filter in its operating location, does meet the efficiency requirements defined in OAR 437-002-0391(1). Determination of filter efficiency shall be by measurement, with a forward light scattering photometer, of passage of a polydisperse dioctyl phthalate aerosol.

(g) Employees engaged in animal support activities shall be:

(A) Provided with, and required to wear, a complete protective clothing change, clean each day, including coveralls or pants and shirt, foot covers, head covers, gloves, and appropriate respiratory protective equipment or devices; and

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(B) Prior to each exit from a regulated area, employees shall be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers shall be identified as required under OAR 437-002-0364(5)(b), (c) and (d).

(C) Required to wash hands, forearms, face and neck upon each exit from the regulated area close to the point of exit, and before engaging in other activities; and

(D) Required to shower after the last exit of the day.

(h) Employees, other than those engaged only in animal support activities, each day shall be:

(A) Provided with and required to wear a clean change of appropriate laboratory clothing, such as a solid front gown, surgical scrub suit, or full buttoned laboratory coat.

(B) Prior to each exit from a regulated area, employees shall be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers shall be identified as required under OAR 437-002-0364(5)(b), (c) and (d).

(C) Required to wash hands, forearms, face and neck upon each exit from the regulated area close to the point of exit, and before engaging in other activities.

(i) Air pressure in laboratory areas and animal rooms where a carcinogen is handled and bio-assay studies are performed shall be negative in relation to the pressure in surrounding areas. Exhaust air shall not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated.

(j) There shall be no connection between regulated areas and any other areas through the ventilation system.

(k) A current inventory of carcinogens shall be maintained.

(l) Ventilated apparatus such as laboratory type hoods, shall be tested at least semi-annually or immediately after ventilation modification or maintenance operations, by personnel fully qualified to certify correct containment and operation.

Stat. Auth.: ORS 654.025(2) and 656.726(3).

Hist: WCB Admin. Order, Safety 3-1975, f. 10/6/75, f. 10/6/75, ef. 11/1/75.
OR-OSHA Admin. Order 12-1993, f. 8/20/93, ef. 11/1/93.

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