

**NORTH CAROLINA DEPARTMENT OF LABOR
OFFICE OF OCCUPATIONAL SAFETY AND HEALTH
RALEIGH, NORTH CAROLINA**

Standards Notice 47

TO: All Supervisors, Consultants, Safety Officers, Industrial Hygienists, and Staff

SUBJECT: Laboratory Provisions under the Carcinogen General Industry Standards

A. Standards Reference

1. 29 CFR 1910.1003 - .1004
2. 29 CFR 1910.1006 - .1016
3. G.S. 95-129(1) (General Duty Clause)

B. Discussion

As of August 20, 1976, the laboratory provisions of the carcinogen standards [Section c(6)] were deleted due to an error in the standard promulgation procedure. No comment period was allowed for the laboratory provisions and the chemist who initially developed the standards sued OSHA for deletion of these provisions without proper review.

The laboratory provisions were accepted as being minimal to protect the health and safety of laboratory workers who handle carcinogens. These provisions are attached (see Appendix A) and were applied to all of the carcinogens listed under 29 CFR 1910.1003 - .1016.

As a result of the deletions laboratories are excluded from the provisions of 29 CFR 1910.1003 - .1016. No part of these standards apply to research or quality control laboratories. However, this is not to say that the use of carcinogens in a research or quality control laboratory is not a recognized hazard. The Federal Court in its affirmation of the carcinogen standard ruled that carcinogens are recognized health hazards.

The improper handling of carcinogenic materials covered by the deleted sections can lead to the development of carcinoma in humans.

C. Policy

Laboratories that handle carcinogens must follow procedures at least as effective as Appendix A provisions for the handling of carcinogens. If no procedures are established or the procedures are not as effective as those in

Appendix A, a serious violation may exist in regard to a recognized hazard. This would meet the requirements for a citation under G.S. 95-129(1) (General Duty Clause) and shall be cited as such. The Director of the North Carolina Occupational Safety and Health Administration will determine the effectiveness of health provisions used by laboratories that may be dissimilar to these listed in Appendix A.

All negative answers on the carcinogen checklist attached as Appendix B should be listed in the report on the OSHA-1A. This will assist the determination of severity.

Information regarding the effectiveness of differing procedures can be obtained by contacting the Safety and Health Engineering Section.

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Appendix A
Laboratory Provisions to Follow
When Handling Carcinogens

The requirements of this section shall apply to research and quality control activities involving the use of carcinogens.

- 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 carcinogens are 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 carcinogens shall be inactivated prior to disposal.
- F. Laboratory vacuum systems shall be protected with high-efficiency scrubbers or with disposable absolute filters.
- G. Employees engaged in animal support activities shall be:
 - 1. Provided with, and required to wear, a complete protective clothing change, clean each day, including coveralls or pants and shirt, foot covers, gloves, and appropriate respiratory protective equipment or devices;
 - 2. 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 paragraphs (e)(2), (3), and (4) of the carcinogen standards;
 - 3. 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
 - 4. 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:

1. Provided with and required to wear a clean change of appropriate laboratory clothing, such as a solid front gown, surgical scrub suit, or fully buttoned laboratory coat;
 2. 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 paragraphs (e)(2), (3), and (4) of the carcinogen standards; and
 3. 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 carcinogens are handled and bioassay studies are performed shall be negative in relation to the pressure in surrounding areas. Exhaust air shall not be discharged to regulated areas, nonregulated 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.