LABORATORY SAFETY - CHEMICAL HYGIENE PLAN

Program Element
R2-10-207(10)(b)

The overall Industrial Hygiene Program shall include a Laboratory Safety and Chemical Hygiene Plan element when applicable.

A Laboratory is a building or room where hazardous chemicals are used for scientific procedures, tests, or for teaching practical science. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

A Laboratory Safety Program and Chemical Hygiene Plan are required for non-production laboratories that engage in the small-scale use of hazardous chemicals with the potential for worker exposure.

Definition:	The **Laboratory Safety Program** includes safety procedures and training for laboratory personnel handling chemicals beginning with ordering and ending with disposal. A **Chemical Hygiene Plan** is a written program developed and implemented by the agency that establishes procedures, equipment, personal protective equipment and work practices that are capable of protecting employees from the health hazards presented by hazardous chemicals used in a laboratory environment.
Why do I need this program?	The Laboratory Safety Program and Chemical Hygiene Plan (CHP) will protect employees from occupational exposure to potentially hazardous chemicals that are stored, handled, and disposed of in their work area(s).
How do I know if this program applies to my agency and my specific job hazards?	The laboratory standard applies to all clinical, industrial, academic or research laboratories where "laboratory use of hazardous chemicals" occurs. OSHA defines the use of hazardous chemicals in which all of the following conditions are present: ● Laboratory scale chemical manipulations; ● Multiple chemical procedures or chemicals are used;

	● Not part of a production process, nor simulates a production process; and ● "Protective laboratory practices and equipment" are available and used.
What are the minimum required elements and/ or best practices for a Laboratory Safety Plan?	The Laboratory standard consists of five major elements: ● Hazard identification; ● Chemical Hygiene Plan; ● Information and training; ● Exposure monitoring; and ● Medical consultation and examinations. Agencies must identify hazardous chemicals used in laboratories by obtaining Safety Data Sheets and then assessing physical and/or health threats to workers. An effective CHP includes the following elements: ● Minimizing exposure to chemicals by establishing procedures for the hierarchy of controls. ● Monitoring the work environment for chemical levels requiring an action level or medical attention. ● Providing procedures for free medical care for work related exposures. ● The means to administer the plan must be specified. ● Responsible persons must be designated for procurement and handling of Safety Data Sheets, organizing training sessions, monitoring employee work practices, and annual revision of the CHP.
Are there any mandatory training requirements or best practices that must be developed by the agency?	Employees must be informed of the following: ● OSHA standard 29CFR 1910.1450, and its appendices, contents, and availability. ● Container labeling, Safety Data Sheets (GHS). ● The location and availability of the CHP.

	• The Permissible Exposure Limits or recommended exposure limits. • Signs and symptoms associated with exposures to hazardous chemicals. • The location and availability of reference material on the hazards, safe handling, storage, and disposal of hazardous chemicals including, but not limited to, Safety Data Sheets received from the chemical supplier. Employee Training shall include: • Methods and observations that may be used to detect the presence or release of a hazardous chemical • Physical and health hazards of chemicals • Appropriate work practices, emergency procedures, and personal protective equipment to be used • The circumstances requiring prior approval from the agency before implementation
Are there specific requirements for documenting the program, training, etc…?	Exposure records: • Notify employees, within 15 days after receipt, of any monitoring results • Maintain records for 30 years Medical records: Maintain for the duration of employment plus 30 years. All training should be documented either in paper format, electronic means, or via the state's employee learning portal, TraCorp. Program documents, training materials, and attendance rosters should be maintained in accordance with Arizona State Library, Archives and Public Records general retention schedules, LAPR - Retention Schedules.

Are there any resources available that can assist me in putting together a Laboratory Chemical Hygiene Plan?	**Yes**. The sample Laboratory Chemical Hygiene Plan Template may be tailored to your agency's needs when developing your agency's program. Additional resources: The OSHA Standard 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories. OSHA 3404-11R (2011) Laboratory Safety Guidance The National Research Council's "Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards, Version 2011" is referenced in Appendix A of 29 CFR 1910.1945, located at http://www.nap.edu/catalog/12654/prudent-practices-in-the-laboratory-handling-and-management-of-chemical The Laboratory Safety Institute www.resources.labsafetyinstitute.org American Chemical Society portal.acs.org/portal/acs/corg/content The NIOSH Pocket Guide to Chemical Hazards www.cdc.gov/niosh/npg/pgintrod.html