

CLAREMONT UNIVERSITY CONSORTIUM



RESPIRATORY PROTECTION PROGRAM

REVISED – SEPTEMBER 1, 2011

Approved - Environmental Health & Safety

The Claremont College Consortium



THE CLAREMONT COLLEGES Pomona College 1887 Claremont Graduate University 1925 Claremont University Consortium 1925
Scripps College 1926 Claremont McKenna College 1946 Harvey Mudd College 1955 Pitzer College 1963 Keck Graduate Institute 1997

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RESPIRATORY PROTECTION PROGRAM

APPLICABILITY: ALL CLAREMONT UNIVERSITY CONSORTIUM EMPLOYEES WHO USE RESPIRATORS AND THEIR SUPERVISORS.

AUTHORITY: California Code of Regulations, Title 8, Section 5144

PURPOSE

The Claremont University Consortium (C.U.C.) shall maintain the Respiratory Protection Program in compliance with General Industry Safety Orders, California Occupational Safety and Health Administration (Cal/OSHA), Title 8, California Code of Regulations, Sections:

- 1529, Asbestos
- 1532.2, Chromium (VI)
- 5141, Control of Harmful Exposure to Employees
- 5143, General Requirements of Mechanical Ventilation Systems
- 5144, Respiratory Protective Equipment
- 5155. Airborne Contaminants
- 5206 Chromium (VI)

The Respiratory Protection Program addresses the responsibilities of the C.U.C., employees, supervisors and the C.U.C. designated Respiratory Program Manager in implementing and maintaining an effective respiratory protection program. The program has the primary goal of preventing employee exposures by prevention of atmospheric contamination. If this is not possible, it determines respiratory protection needs, medical examinations, selection and care of respiratory equipment required to protect employees from exposure to dust, fumes, mists, vapors, gases, and/or dangerous atmospheres, and training needs.

RESPONSIBILITIES

Supervisors, and employees shall implement and maintain the Respiratory Protection Program.

The Respiratory Protection Program Manager shall maintain the Respiratory Protection Program by consulting supervisors and inspecting and evaluating operations and jobsites where respiratory protection may be required, and shall recommend methodology and/or respiratory protection equipment necessary to eliminate respiratory hazards or reduce them to safe levels in compliance with Cal/OSHA regulations. These recommendations shall be sent to the manager for implementation.

The Claremont University Consortium Environmental Health & Safety Department shall maintain the updated template of the Respiratory Protection Program for the use of C.U.C. and for colleges to modify for their operations.

A program administrator shall be designated to administer or oversee the Respiratory Protection Program and conduct the required evaluations for program effectiveness.

CUC EHS shall routinely inspect and monitor work activities or operations and shall recommend to the supervisor ways and means and/or respiratory equipment required to eliminate or reduce respiratory hazards to meet Cal/OSHA requirements

CUC EHS may consult with the Cal/OSHA Consultation Service, the manufacturer of respiratory equipment, other appropriate state and federal agencies, and/or other recognized authorities if there are questions regarding the selection and use of respiratory equipment to eliminate or reduce respiratory hazards to a safe level in compliance with state and federal regulations.

All supervisors shall arrange for supervisors to schedule employee(s) for a respirator exam. The respirator exam is for all employees who are required to wear respiratory protective equipment, as a normal part of their job duties.

CUC EHS will perform “Train-the-Trainer” for respiratory training and fit-testing for employees upon request. Supervisors will then support respirator training and fit testing in their units. A written medical clearance from a physician must be obtained before fit testing and training.

CUC EHS shall have authority to stop any operations in situations which are life threatening or presents an imminent threat of injury (IDLH: Immediately Dangerous to Life and Health).

For the adequate protection of employees, the person supervising, directing or evaluating the monitoring and control methods shall be versed in the components of the Cal/OSHA Respiratory Protection Standard, Section 5155.

RESPONSIBILITIES OF SUPERVISORS

The supervisor shall identify areas of concern for respiratory protection and shall inform CUC EHS of these areas of concern. CUC EHS shall inspect these areas of concern and shall recommend and work with the supervisor to remediate conditions necessary to eliminate respiratory hazards or to reduce them to required levels.

Supervisors shall ensure all employees who fall under the requirements of this directive will be medically-cleared, trained, and fit-tested annually.

Supervisors shall provide respiratory protection equipment to employees as needed. Supervisors shall ensure that employees under their direction know and understand the respiratory protection requirement for their duties. They are also responsible for making sure that all employees under their supervision comply with the requirements of this Respiratory Protection Program, and the respiratory requirements of Cal/OSHA, Title 8, California Code of Regulations. Supervisors shall ensure that all employees are supplied suitable and appropriate

respiratory protection equipment when required to prevent exposure to atmospheric hazards. The supervisor shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where the supervisor cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere to be IDLH. Assistance in this task may be requested from Environmental Health and Safety.

Supervisors shall ensure that employees are medically-cleared, trained, and fit-tested annually. They shall ensure that employees are sent to have their medical exams for respirator use. Supervisor shall follow the respirator medical monitoring requirements. They shall ensure the respirator medical exam will be conducted initially and thereafter if they observe medical-related problems while the employee is using the respirator. Supervisors shall report to the Respiratory Program Manager any changed conditions of the employee that may require medical reexamination.

Supervisors shall ensure that employees understand the limitations of their respirators and read the manufacture's written instructions on the use and care of the employees' respirators.

The supervisor shall ensure that all employees who are exposed to chromium(VI) are evaluated to determine the 8-hour TWA exposure for chromium (VI). This determination shall be made in accordance with either subsection (d)(2) or subsection (d)(3) of CCR Section 1532.2 and General Industry Safety Orders. The Department shall perform initial monitoring to determine the 8 hour TWA exposure for each employee on the basis of a sufficient number of personal breathing zone air samples to accurately characterize full shift exposure on each shift, for each job classification, in each work area. Where an employer does representative sampling instead of sampling all employees in order to meet this requirement, the employer shall sample the employee(s) expected to have the highest chromium (VI) exposures. Examples of these operations would include arc-welding of stainless steel.

Whenever it is reasonable to suspect that employees may be exposed to concentrations of airborne contaminants in excess of levels permitted in section California Code of Regulations, section 5155(c), the supervisor shall obtain the services of an industrial hygienist to conduct monitoring of the work environment so that exposures to employees can be measured or calculated. When exposures to airborne contaminants are found or are expected to exceed allowable levels, measures to control such harmful exposures shall be instituted.

Employees who work with asbestos or lead have special respiratory protection requirements under Cal/OSHA standards. Supervisors shall comply with these and request assistance from CUC EHS as required.

RESPONSIBILITIES OF EMPLOYEES

Employees shall know the respiratory protection requirements in dealing with hazards in their work and shall know and understand this Respiratory Protection Program.

When respiratory protection is necessary, employees shall wear the appropriate respiratory equipment and shall follow the proper instructions for maintaining respiratory equipment in a clean and operable condition. Employees shall not modify issued respiratory protection equipment in any way, including marking or painting, or other modifications including using unauthorized cartridges for cartridge type respirators.

Employees shall use the prescribed respiratory protection procedures and equipment. Employees who fail to follow prescribed respiratory procedure, who fail to use respiratory equipment, safety equipment, or comply with instructions from their supervisors regarding these shall be subject to disciplinary action.

Employees shall attend training and fit-testing before initial respirator use and annually thereafter. They shall have the respirator medical exam before the initial time and thereafter if the employee reports medical signs or symptoms related to respirator use. Employees are required to report these medical signs or symptoms to the supervisor so that they are aware of the employee's inability to use a respirator.

APPROVAL AND SELECTION OF RESPIRATORS

Three main goals to control harmful exposure to employees (in order of priority):

1. Engineering Controls. Harmful exposures shall be prevented by engineering controls whenever feasible.
2. Administrative Controls. Whenever engineering controls are not feasible or do not achieve full compliance, administrative controls shall be implemented if practicable.
3. Control by Respiratory Protective Equipment. Respiratory protective equipment shall be used to prevent harmful exposures if engineering and administrative controls are not feasible or fail to achieve full compliance.

Respirators shall be selected on the basis of hazards to which the worker is exposed with the goal of protecting the life and health of the worker in conjunction with the Assigned Protection Factor (APF) of the respirator. They shall be chosen in consultation with the supervisors concerned, personal/area air monitoring, Material Safety Data Sheets (MSDS), and the employee who will be using these respirators.

Respirators may have operating conditions, an assigned protection factor, and safeguards which are unique to that specific type of respirator. The supervisors and users of respirators shall refer to the manufacturer's recommendations for detailed information regarding selection of respirator types, cartridge types, hazards of use, and correct operating procedures.

Only respirators approved by the National Institute of Occupational Safety and Health (NIOSH) or the Mine Safety Administration (MSA) shall be used. The respirator furnished shall provide adequate respiratory protection against the particular hazard for which it is designed in accordance with the appropriate safety standards. Cartridges must be approved for that specific respirator. No employee modification of respirators is permitted.

ASSIGNMENT AND EVALUATION OF RESPIRATOR USE

Respirators should be assigned to individual workers for their exclusive use. Supervisors shall evaluate the operations for changing conditions which may require a change in type of respirator, or cartridge type. Air purifying respirators shall not be used in any type of IDLH situations (i.e., oxygen deficient atmospheres). Selection of appropriate respirator, cartridge types, and frequency of cartridge changes will be made by reference to the MSDS for chemicals used by the supervisor. If the supervisor has any question about the nature of the hazard or the type of respiratory protection, CUC EHS shall be consulted before starting the operation.

FILTERING FACEPIECE (DUST MASK) USE

Cal/OSHA T8 Section 5144 defines a dust mask as a negative pressure particulate respirator:

“Filtering facepiece (dust mask) means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.”

All filtering facepieces (dust masks) require the implementation of this Respiratory Protection Program, unless use is voluntary. If use by an employee is mandated by a supervisor, manager, safety professional, or industrial hygienist then such use is not voluntary. For voluntary use requirements see that section.

SURVEILLANCE OF WORK AREA

Appropriate monitoring of work area conditions and the degree of employee exposure shall be carried out by supervisors at the work area, and periodically by CUC EHS (or designated representative). Supervisors shall identify suspected respiratory hazards in their work areas by observing work activities and operations under their control. If the problem cannot be resolved, request assistance from CUC EHS. EHS will investigate the suspected respiratory hazard and shall determine the level of hazard by such means as air monitoring.

The manager shall take action to eliminate the respiratory hazards or reduce them to a level in compliance with Cal/OSHA regulations.

BREATHING AIR QUALITY AND USE

If breathing air is used in a supplied air respirator, it must be of high purity, meet quality levels for content, and not exceed contaminant levels and moistures. Cal/OSHA requires that

compressed breathing air shall meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:

1. Oxygen content (v/v) of 19.5-23.5%;
2. Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
3. Carbon monoxide (CO) content of 10 ppm or less;
4. Carbon dioxide content of 1,000 ppm or less; and
5. Lack of noticeable odor.

TRAINING ON THE USE AND LIMITATIONS OF RESPIRATORS

The respirator user shall be instructed and trained in the proper use of respirators and their limitations. Both supervisors and employees shall be instructed by CUC EHS or a designated representative.

Employees shall be trained in the following areas:

- Why the respirator is necessary and how an improper fit, use, or maintenance can compromise the protective effect of the respirator.
- The capabilities and the limitations of the respirator.
- Use of the respirator in emergency situations.
- How to inspect, put on, remove, and use the respirator.
- How to obtain and check for a complete seal.
- Procedures for maintaining and storing a respirator.
- Recognition of the medical signs and the symptoms that may limit or prevent an employee's effective use of a respirator.
- Cal/OSHA respirator regulations.

Every respirator user shall read the manufacture's written safety instructions on respiratory protection and use.

PROPER FACE SEAL AND FIT-TESTING

To ensure adequate respiratory protection, a proper match must exist with the user and the respirator. Respirator users shall be fit-tested initially to identify the specific make, model, style, and size of the respirator that is best suited for each employee. Fit-testing is required before the initial use of the respirator, whenever an employee uses a different respirator type facepiece, and at least annually. In addition to the fit-testing and to assure proper protection, the employee shall perform a user seal check each time he/she puts on the respirator. This is done with a positive- and negative-pressure seal check according to the manufacturer's facepiece-fitting instructions.

The fit test shall be documented on Attachment A.

Respirators shall not be worn when conditions prevent a good face seal. These conditions include facial hair, sideburns, a skull cap that projects under the facepiece, or temple pieces on glasses that interferes with the face-to-facepiece seal. The absence of one or both dentures can also seriously affect the fit of a facepiece. The worker's diligence and the supervisor's monitoring in these factors shall be evaluated by periodic checks.

RESPIRATOR MAINTENANCE

Employees issued respiratory protective equipment shall use and maintain the equipment in accordance with instructions from the manufacturer and training received. Employees shall report any malfunction to their supervisor immediately for repair or replacement.

CLEANING, SANITIZING, AND STORING RESPIRATORS

Respirators shall be regularly cleaned and disinfected before each use and properly stored. Those issued for the exclusive use of one worker should be cleaned after each day's use, or more often if deemed necessary by the worker or supervisor. Those used by more than one worker shall be thoroughly cleaned, disinfected, inspected before and after each use, and before use by another worker.

Respirator storage locations shall be in a clean and dry area with sanitary conditions.

INSPECTION OF RESPIRATORS

Personal respirators used routinely shall be inspected during cleaning, before and after each use. Worn or deteriorated parts shall be replaced. Respirators for emergency use such as self-contained devices shall be thoroughly inspected at least once a month, before, and after each use. In cases where the manufacturer specifies required maintenance intervals, compliance shall be met. Inspection records shall be maintained at the work location.

MEDICAL EXAMINATIONS

Persons shall not be assigned to tasks requiring the use of respirators unless it has been medically determined that they are medically and physically able to perform the work and use the equipment. Employees will be notified if they have any restrictions based on their medical exams.

Employees using respiratory protection equipment shall have an initial Respirator Medical Exam and repeated medical testing is not required unless one of the following trigger events occur:

- An employee reports medical signs or symptoms related to respirator use.
- A supervisor observes the employee to have medically-related problems with using the

respirator.

- There is a change in an employee's workplace conditions (e.g., physical work effort, protective clothing, and temperature) that results in a substantial increase in the physiological burden placed on the employee.
- There is a change in an employee's job duties to such an extent that an employee who was previously using an air-purifying respirator must now use a self-contained breathing apparatus.

Supervisor shall ensure that employees are clean shaven when they are scheduled for fit-testing.

VOLUNTARY USE OF RESPIRATORS

Workers may choose to wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by CAL/OSHA standards. Respirator use is encouraged even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker.

If the employee is provided with a respirator for voluntary use, there are certain precautions to ensure that the respirator itself does not present a hazard:

- Read and follow all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
- Respirators have to be either certified by the National Institute for Occupational Safety and Health (NIOSH) of the U.S. Department of Health and Human Services. The certification will tell you what the respirator is designed for and how much it will protect the employee.
- Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designated to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors or very small solid particles of fumes or smoke.
- Any voluntary use of a respirator that is not classified as a filtering facepiece (dust mask) will involve the employee to participate in the Respiratory Protection Program.

RESPIRATORY PROTECTION TRAINING

The employer shall ensure that each employee can demonstrate knowledge of at least the following:

- (A) Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- (B) What the limitations and capabilities of the respirator are;

- (C) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- (D) How to inspect, put on and remove, use, and check the seals of the respirator;
- (E) What the procedures are for maintenance and storage of the respirator;
- (F) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
- (G) The general requirements of this section.

The training shall be conducted in a manner that is understandable to the employee.

The employer shall provide the training prior to requiring the employee to use a respirator in the workplace.

Retraining shall be administered annually, and when the following situations occur:

- (A) Changes in the workplace or the type of respirator render previous training obsolete;
- (B) Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
- (C) Any other situation arises in which retraining appears necessary to ensure safe respirator use.

RECORD KEEPING

The Respiratory Protection Program Manager shall maintain annual training and fit-testing records of employees who have taken the required respirator training. All air monitoring results shall be recorded and such records shall be retained in accordance with CCR, section 3204.

EMPLOYEE MEDICAL AND EXPOSURE RECORDS.

- Each employee exposure record shall be preserved and maintained for at least thirty (30) years. Exception: The medical records of employees who have worked for less than (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon the termination of employment.
- Background data to environmental (workplace) monitoring or measuring, such as laboratory reports and worksheets, need only be retained for one (1) year so long as the sampling results, the collection methodology (sampling plan), a description of the analytical and mathematical methods used, and a summary of other background data

- relevant to interpretation of the results are retained for at least thirty (30) years;
- Material safety data sheets shall be retained as necessary to comply with the provisions of section 5194. Where material safety data sheets are destroyed, a record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used shall be retained for at least thirty years; and
 - Section 3204(c)(5)(D) records concerning the identity of a substance or agent need not be retained for any specified period as long as some record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used is retained for at least thirty years.
 - Analyses Using Exposure or Medical Records. Each analysis using exposure or medical records shall be preserved and maintained for at least thirty (30) years.
 - Employee Medical Records. The medical record for each employee shall be preserved and maintained for at least the duration of employment plus thirty (30) years

SUPERVISORS RECORDKEEPING

Supervisors shall maintain a record of employee's annual fit-testing, training records, and restrictions at each location.

ACCESS TO RECORDS

Whenever an employee or designated representative requests access to a record, access should be provided in a reasonable time, place, and manner, but in no event later than fifteen (15) days after the request for access is made.

Health professionals who are employed by the organization may access these records in the normal course of their duties. This is defined as "a physician, occupational health nurse, industrial hygienist, toxicologist, or epidemiologist providing medical or other occupational health services to exposed employees." (Title 8, Section 3204.B.9)

EMPLOYEE EXPOSURE RECORDS.

Each employee and designated representative has access to their own employee exposure records. These exposure records relevant to the employee consist of:

- Records containing measurements or monitoring results of the amount of a toxic substance or harmful physical agent to which the employee is or has been exposed;
- In the absence of such directly relevant records, such records of other employees with past or present job duties or working conditions related to or similar to those of the employee to the extent necessary to reasonably indicate the amount and nature of the toxic substances or harmful physical agents to which the employee is or has been subjected; and
- Exposure records to the extent necessary to reasonably indicate the amount and nature of the toxic substance or harmful physical agent at workplaces or working conditions to

which the employee is being assigned or transferred.

EMPLOYEE MEDICAL RECORDS ACCESS AND CONFIDENTIALITY.

The supervisor shall assure the access of each employee to employee medical records of which the employee is the subject, except as provided in section 3204(e)(2)(B)4. These records are to be stored securely in the organizations Human Resources Department.

- These records will be made available to employees, their representatives or the Division of Occupational Safety and Health (DOSH) without cost, within 15 days of a request; NO RELEASE OF EMPLOYEE MEDICAL RECORDS TO A THIRD PARTY WILL BE MADE.
- Requests for these records must be made in writing by the employee using the form in Attachment B. If the employee designates a representative to obtain the records then the employee must provide a written authorization form. A sample authorization form is contained in GISO 3204;
- If the employee requests the information, and if in the opinion of the physician representing the employer the employee may be harmed by that information, then the information may be withheld from the employee. But in no event can the information be withheld from the employee's designated representative. See 8 CCR 3204 (e) (2) (B) 4 and 5.
- Care must be taken when releasing records to a requesting employee or a designated employee representative. If the records contain any information identifying another employee (e.g., by name, address, social security number, payroll number, age, height, weight, race, sex, date of initial employment, job title, etc.) the employer shall assure that personal identifiers are removed before access to the records is provided to the requesting employee or designated representative. If the employer can demonstrate that removal of personal identifiers from an analysis is not feasible, access to the personally identifiable portions of the analysis need not be provided. See 8 CCR 3204 (e) (2) (C) 2.

EMPLOYEE INFORMATION.

Upon an employee's first entering into employment, and at least annually thereafter, each employer shall inform current employees covered by this section of the following:

- (A) The existence, location, and availability of any records covered by this section;
- (B) The person responsible for maintaining and providing access to records; and
- (C) Each employee's rights of access to these records.

DISCIPLINARY ACTION

Employees who violate this Safety Policy may be subject to disciplinary action which may include reprimand, suspensions, reduction, or discharge.

For questions on this program for The Claremont Colleges Consortium, contact Jay Brakensiek, Environmental Health and Safety Manager, at jayb@cuc.claremont.edu.

Attachment A

Respiratory Protection Training and Fit Test Record

Employee Name: _____ Job Title: _____

College/Organization: _____ Supervisor: _____

Employee ID: _____

Brand/Model of Respirator fitted: _____ Fit Test Passed: yes no

Test Conducted by: _____

Method of fit test: Irritant Smoke Saccharine Bitrex Quantitative

Date: _____ Time: _____

Respirator Training Completed: Yes No Trainer Name: _____

Date: _____ Time: _____

Training has been completed on the following:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- What the limitations and capabilities of the respirator are;
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to inspect, put on and remove, use, and check the seals of the respirator;
- What the procedures are for maintenance and storage of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
- The general requirements of respiratory protection per Cal/OSHA regulations section 5144.

Attachment B

Authorization Letter for the Release of Confidential Employee Medical Record Information

TO: Human Resources Director

I, _____ (full name of worker/patient) hereby authorize

_____ (individual or organization holding the medical

records) to release to _____ (individual or organization authorized to receive the medical information), the following medical information from my personal medical records:

(Describe generally the information desired to be released.)

I give my permission for this medical information to be used for the following purpose:

but I do not give permission for any other use or re-disclosure of this information.

OTHER:

(NOTE.--You may want to place additional restrictions on this authorization letter. For example, you may want to (1) specify a particular expiration date for this letter (if less than one year); (2) describe medical information to be created in the future that you intend to be covered by this authorization letter; or (3) describe portions of the medical information in your records which you do not intend to be released as a result of this letter.) [Your right of access to a specific written consent form submitted to your employer is provided by section 3204(e)(1)(D).]

Full name of Employee or Legal Representative _____

Signature of Employee or Legal Representative _____

Date of Signature _____