



# **Respiratory Protection Program**

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# **Policy Statement**

It is the policy of the San Bernardino Community College District (SBCCD) that all employees will be protected from exposure to airborne contamination by installing or implementing feasible engineering or administrative controls. If these controls do not prove feasible, or while they are being installed/instituted, appropriate respiratory protection will be provided.

# Purpose

SBCCD has determined that certain employees may be exposed to respiratory hazards during routine operations. These hazards include, chemical vapors, certain biohazards, asbestos and other particulates. The purpose of this program is to ensure that all SBCCD employees and students are protected from exposure to these respiratory hazards.

Engineering controls, such as ventilation and substitution of less toxic materials, are the first line of defense at SBCCD; however, engineering controls are not always feasible for some operations or do not completely control the identified hazards. In these situations, respirators and other protective equipment must be used. Respirators may also be needed to protect employee health during emergencies. The work activities requiring respirator use at San Bernardino Valley College and Crafton Hills College are outlined in Appendix A and Appendix B of this program.

All respirator use will occur within the context of a comprehensive program as per the standards set forth by California Code of Regulations (CCR), Title 8, Section 5144; American National Standard Institute (ANSI) Z88.2-1980. In addition, some employees have expressed a desire to wear respirators during certain operations that do not require respiratory protection. As a general policy SBCCD will review each of these requests on a case-by case basis.

# **Scope and Application**

This program applies to all employees with potential exposure to airborne contaminants that exceed or potentially exceed permissible exposure limits which are required to wear respirators during normal work operations, and during some non-routine or emergency operations such as a spill of a hazardous substance. All aforementioned employees must be enrolled in the SBCCD Respiratory Protection Program (RPP).

Any employee who voluntarily wears a respirator when a respirator is not required is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and must be provided with information about respirator use and maintenance. Employees who usually voluntarily wear filtering face pieces (dust masks) are not subject to the medical evaluation, cleaning, storage, and maintenance provisions of this program.

# Responsibilities

### **Program Administrator**

The College President is the program administrator, the Vice President of Administration is the designee, and both have the authority and responsibility for implementing and maintaining this RPP for their respective campuses. Assigned campus designees are as follows:



#### Scott Stark, Vice President of Administrative Services/SBVC, Site Safety Officer San Bernardino Valley College Tel: (909) 384-8958 <u>sstark@sbccd.cc.ca.us</u> & Michael Strong, Vice President of Administrative Services/CHC, Site Safety Officer Crafton Hills College Tel: (909) 389-3210

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The RPP Administrators and designees may be assisted in their duties by the District Environmental Health & Safety Administrator. The current District Environmental Health & Safety Administrator is Whitney Fields and he can be reached at (909) 382-4070 or via email at <u>wfields@sbccd.cc.ca.us</u>, during regular business hours.

The Program Administrator is responsible for administering the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
- > Arranging for and/or conducting training.
- > Ensuring proper storage and maintenance of respiratory protection equipment.
- > Arranging for and/or conducting qualitative fit testing.
- > Arranging for and/or conducting the medical surveillance program.
- > Maintaining records required by the program.
- Evaluating the program.
- Updating written program, as needed.

#### **Supervisors**

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing and annual medical evaluation.
- Ensuring the availability of appropriate respirators and accessories.
- > Enforcing the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- > Ensuring that respirators fit well and do not cause discomfort.
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding the program.



#### Employees

Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees must also:

- > Care for and maintain their respirators as instructed, and store them in a clean sanitary location.
- Inform their supervisor immediately if the respirator no longer fits well, and request a new one that fits properly.
- Inform their supervisor of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

### Definitions

- Air-purifying respirator means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air- purifying element.
- Air-supplying respirator means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.
- Emergency situation means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.
- Employee exposure means exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.
- End-of-service-life indicator (ESLI) means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.
- Filter cartridge or air purifying element means a component used in respirators to remove solid or liquid aerosols from the inspired air.
- Filtering face piece (dust mask) means a negative pressure particulate respirator with a filter as an integral part of the face piece or with the entire face piece composed of the filtering medium.
- Fit factor means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.
- Fit test means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)
- High efficiency particulate air (HEPA) filter means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.
- Immediately dangerous to life or health (IDLH) means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
- Negative pressure respirator (tight fitting) means a respirator in which the air pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.
- > Oxygen deficient atmosphere means an atmosphere with an oxygen content below
- > 19.5% by volume.
- Physician or other licensed health care professional (PLHCP) means an individual whose legally permitted scope or practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by this program.



- Positive pressure respirator means a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.
- Powered air-purifying respirator (PAPR) means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.
- Pressure demand respirator means a positive pressure air-supplying respirator that admits breathing air to the face piece when the positive pressure is reduced inside the face piece by inhalation.
- Qualitative fit test (QLFT) means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.
- Quantitative fit test (QNFT) means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.
- Respiratory inlet covering means that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a face piece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.
- Self-contained breathing apparatus (SCBA) means an air-supplying respirator for which the breathing air source is designed to be carried by the user.
- Service life means the period of time that a respirator, filter or sorbent or other respiratory equipment provides adequate protection to the wearer.
- Supplied-air respirator (SAR) or airline respirator means an air-supplying respirator for which the source of breathing air is not designed to be carried by the user.
- > Tight-fitting face piece means a respiratory inlet covering that forms a complete seal with the face.
- User seal check means an action conducted by the respirator user to determine if the respirator is properly seated to the face.

# **Program Elements**

#### **Respirator Selection Procedures**

The Program Administrator will identify respirators to be used on site, based on the hazards to which workers are exposed and in accordance with all Cal/OSHA standards. The Program Administrator will ensure a hazard evaluation is performed by a competent individual (SBCCD safety consultant) for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency.

This hazard evaluation will include: identification and development of a list of hazardous substances used in the workplace, by department, or work process; review of work processes, by way of surveying the workplace, reviewing process records, and talking with employees and supervisors to determine where potential exposures to these hazardous substances may occur; and conducting necessary exposure monitoring to quantify potential hazardous exposures.





The Program Administrator will revise and update the hazard evaluation as needed (i.e., any time work process changes may potentially affect exposure). If an employee feels that respiratory protection is needed during a particular activity, the employee will contact a supervisor or the RPP Program Administrator or designee. The Program Administrator or designee will evaluate the potential hazard, arranging for outside assistance as necessary, and will then communicate the results of that evaluation back to the employees. If it is determined that respiratory protection is necessary, all other elements of this program will be in effect for those tasks and this program will be updated accordingly.

### **NIOSH** Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use.

### Voluntary Use of "Comfort Masks"

Single use disposable comfort masks are the only dust masks permitted for voluntary use by SBCCD employees. SBCCD does not permit its employees to use their own respirators. Single-use disposable comfort masks are not NIOSH approved and should not be used against toxic air contaminants. These comfort masks should only be used for dust and pollen control.

The Program Administrator will ensure that all employees who voluntarily use single-use disposable comfort masks are provided with a copy of Title 8 CCR 5144 Appendix D, found in **Appendix C** of this document.

### Medical Evaluation

Employees who are required to wear respirators must pass a medical exam before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

Medical evaluations are provided by a physician, or other licensed healthcare professional (PLHCP) at a location determined by the San Bernardino Community College District Office of Human Resources. Prior to examination, the employee will be asked to complete a comprehensive medical questionnaire that will be reviewed during the examination process. SBCCD Human Resources will provide the PLHCP with a copy of this Respirator program. In addition the following information is provided for each:

- > A summary of the employee's exposure to a hazardous substance;
- His or her work area or job title;
- Proposed respirator type and weight;
- Length of time required to wear respirator;
- Expected physical work load (light, moderate, or heavy);
- Potential temperature and humidity extremes; and
- > Any additional protective clothing required.

After an employee has received clearance and starts to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:



- Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
- > A physician informs the Program Administrator that the employee needs to be reevaluated;
- Information from the program, including observations made during fit testing and program evaluation, indicates a need for reevaluation;
- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

All examinations and related questionnaires are to remain confidential between the employee and the physician.

### Medical Evaluations for Students

The program director, clinical director, instructor, or their designee is responsible for identifying the students who need to be fit tested and sending the list of student names (including email addresses and phone numbers) to the department secretary or lab technician. SBCCD utilizes 3M for medical clearances, which provides an online questionnaire. Profiles for different programs/jobs/fields have been created to assure that the proper questions are addressed.

- 1) Students will be required to pay a \$28 fee at the Bookstore prior to receiving a login and password to the 3M website.
- 2) To verify payment, the student is required to bring the receipt from the Bookstore to the department secretary or lab technician.
- Once verification of payment is received, the department secretary or lab technician matches the student to the correct profile, obtains a unique personal login for the student, and then informs the student to complete the online evaluation.
- 4) The program director, instructor, or designee shall instruct students on the timely completion of the medical questionnaire.
- 5) The student goes to the 3M website (<u>www.respexam.com</u>), and selects "Employees: start your respirator medical questionnaire."
- 6) Login to the web site using a unique personal login provided to the student by the department secretary or lab technician.
- 7) Student then fills out the on-line questionnaire and submits it for evaluation. If the student has questions while filling out the questionnaire, they may call 3M at 800-383- 3393 between the hours of 8am and 4pm Central Standard Time.
- 8) Once the student has submitted the questionnaire, the student and the department secretary or lab technician will receive an email showing the student's status (passed or referral) within one (1) business day after completion of the questionnaire.
- 9) If cleared, the students shall print out and take the completed medical clearance back to the program director, clinical director, or instructor who will then coordinate the fit testing.
- 10) If referred, the "red flags" are identified that require additional medical evaluation. The department secretary or lab technician will then notify the program director, clinical director, instructor or designee if the student is medically cleared. If the student passes, he/she is "medically cleared" and ready for fit testing.
- 11) If the student requires a medical evaluation, the following procedures shall be followed:
  - a. The student will be referred to the Health and Wellness Center (HWC) or, if desired, the student may use their own doctor/healthcare provider. If referred to the HWC, the student will be required to set an appointment with the HWC for further evaluation.
  - b. The HWC
    - i. For CHC campus is located at SSB-101; phone number is (909) 389-3272.
    - ii. For SBVC campus is located Building in NW corner of parking lot 8, behind football field scoreboard; phone number is (909) 384-4495
  - c. The student must print out a copy of the completed questionnaire from the 3M website and bring it with them to the doctor.



- d. Upon the successful completion of the evaluation, the healthcare provider/doctor signs the questionnaire and the student or health care professional must fax the signed questionnaire to 3M at 1-877-609-3832. Once 3M receives the student's signed and completed questionnaire, 3M emails the student with a medical clearance (if cleared).
- e. Students shall print out and take the completed medical clearance back to the program director, clinical director, or instructor who will then coordinate the fit testing.
- 12) All data is stored indefinitely by 3M, behind a firewall, on a secure server. SBCCD does not have access to the students' private health information. However, in the event the medical information is required, an inquiry can be made to 3M at 800-383-3393.
- 13) Medical clearances are valid for two (2) years; however, fit testing must be performed annually.

### Fit Testing

Fit testing is required for SBCCD employees who are required to wear respirators. Details of the fit testing process will be determined by the SBCCD Safety Consultant. Employees will be fit tested with the make, model, and size of respirator that they will actually wear. The SBCCD Office of Human Resources office will arrange fit tests. Fit testing will occur at the following frequency:



### Fit Testing for Students

The student shall consult with the fit tester or designee to determine the appropriate size of mask to purchase prior to fit testing. The program director, clinical director, and fit tester shall coordinate the time a place for preliminary mask sizing. The program director, clinical director, instructor, or designee will coordinate a time and an appropriate place for fit testing. Once the student is tested, the fit tester will send an email and provide hard copy records to the program director, clinical director, or designee. The tester also provides the student with a card.



### Purchase Order for Faculty Supplies

Each fiscal year, an open PO will be established with the Bookstore to provide required respiratory protection equipment for faculty who are required to wear these items as part of their responsibilities.

### Standard Operating Procedures:

Employees will use their respirators in accordance with the training they receive on the use of their assigned respirator. The respirator shall not be used in a manner for which it is not certified by NIOSH. All employees shall conduct user seal checks each time that they wear their respirator. Employees shall use user seal checks as specified in **Appendix D** of this document.

#### **Respirator Malfunction**

For any malfunction of a respirator, the wearer should vacate the area containing toxic fumes and then immediately inform his or her supervisor that the respirator no longer functions properly and obtain a replacement. The employee will be given a replacement of similar make, model, and size. The supervisor must ensure that the defective respirator is properly repaired prior to re-issuing that piece of equipment.

### Respirator Cleaning, Maintenance and Storage

Respirators are issued for the exclusive use of an employee and shall be cleaned by the user as often as necessary. Cleaning and maintenance of respirators should utilize products and materials recommended by the respirator manufacturer. The following guidelines should be used when cleaning and disinfecting respirators:

•Disassemble respirator, removing any filters, canisters, or cartridges

•Wash the face piece and associated parts in a mild detergent with warm water. Do not use organic solvents

• Rinse completely in clean warm water

•Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs

•Air-dry the respirator in a clean area.

•Reassemble the respirator and replace any defective parts.

•Place in a clean, dry plastic bag or other air tight container

The employee's supervisor will ensure an adequate supply of appropriate cleaning and disinfection material is available at the cleaning station. If supplies are low, employees should notify their supervisor who will order the needed supplies.



Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defeats. Inspection of the respirator must be conducted before every use. Worn or deteriorated parts will be replaced prior to use. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his or her supervisor. The employee will be given a replacement of similar make, model, and size. Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations.

### Training

The Program Administrator will coordinate adequate training for respirator users and their supervisors. Employees will be trained on the proper use of their respirator prior to using it in the workplace. Supervisors will also be trained prior to supervising employees that must wear respirators. Employees will be retrained annually or as needed (e.g., if they change departments and need to use a different respirator). Respirator training will be documented by the employee's supervisor, with hard copies forwarded to the Program Administrator. Documentation pertaining to the type, model, and size of respirator for which each employee has been trained and fit tested will be included.

The SBCCD RPP training course will cover the following topics:





### On-the-Job Training Requirements

The Deans are responsible for providing site-specific training related to respiratory protection. As training is performed, the Dean shall submit a record of the training to Human Resources.

# **Program Evaluation**

The SBCCD Respiratory Protection Program will be reviewed, and revised as necessary, on an annual basis by the Program Administrator and the Facilities and Safety Committee (FASC).

# **Documentation and Recordkeeping**

A written copy of this program and the related OSHA standard are kept in the Program Administrator's office and is available to all employees who wish to review it. Training and fit test records will be updated as new employees are trained and existing employees receive refresher training and new fit tests are conducted.

The SBCCD Office of Human Resources will maintain copies of the medical clearance records for all employees covered under this program. The Program Administrator will only retain written recommendation regarding each employee's ability to wear a respirator.



# Appendix A-1: SBVC Site Specific Information



Programs at SBVC that utilize respiratory protection include:





# Appendix A-2: SBVC Site Specific Information

#### Table 1.0 (A-2)- Current Respirators & Filters for Qualified Employees at SBVC

Brand Name	Mask Style	Filter Cartridge Type	Work Task/Hazard	Department
ЗМ	7000	3M 6005 Formaldehyde/Organic Vapor	Formaldehyde Mitigation	Biology, Microbiology, Anatomy and Physiology, and Chemistry
Varies	Dust Masks	NA	Respiratory Irritants (dust)	M&O, Grounds & Custodial
Varies	N95	NA		M&O, Grounds & Custodial



# Appendix B-1: CHC Site Specific Information



#### Programs at CHC that utilize respiratory protection include:





# Appendix B-2: CHC Site Specific Information

#### Table 1.0 (B-2)- Medical Evaluation Providers By Department

Medical evaluations will be performed as follows: <b>Department</b>	Physician or other Licensed Health Care Professional (PLHCP)
CHC Employees	3M Respiratory Medical Exam (Online)
	Additional medical evaluation and test Fox Occupational Center -
	Live Exam
EMS Students	3M Respiratory Medical Exam (Online), Primary Care
	Physician or Health and Wellness Center
Fire Technology Students	3M Respiratory Medical Exam (Online), Primary Care
	Physician or Health and Wellness Center
Respiratory Technology	3M Respiratory Medical Exam (Online), Primary Care
Students	Physician or Health and Wellness Center

#### Table 2.0 (B-2)- Current Respirators & Filters for Qualified Employees at CHC

Brand Name	Mask Style	Filter Cartridge	Work Task/Hazard	Department
3M or other	Various	3M or other	<ul> <li>Spray painting application of oil-based paint or little/no ventilation available</li> <li>LCH under-sink trap clean out and working with acid solutions</li> <li>Working within lab fume hoods and mechanical ducts</li> <li>Welding and brazing</li> </ul>	M&O- HVAC and Maintenance Technicians
3M or other	Various	3M or other	<ul> <li>Chemical pour off, blending and bulking without use of laboratory hood</li> <li>Scene shop spray painting (oil-based)</li> <li>Cadaver examination and dissection</li> <li>Ceramics shop clean up and clay mixing</li> <li>Working with fire safety applications</li> <li>Working with respiratory therapy applications</li> <li>Nurse Working with patients</li> </ul>	Faculty/Lab Technicians



Dual	May be used for the following specific tasks: Vari	ous
strapped dust masks	<ul> <li>Groundskeeper -using blower, grass cutting and leaf raking</li> <li>Custodians, Maintenance Technicians - dusting and surface preparation for painting</li> <li>Nurse- suspecting TB exposure</li> </ul>	

### Fit Testing for CHC Employees

- A. Qualitative fit tests shall be performed in an area with adequate ventilation to prevent exposure of the person conducting the fit test or the build-up of irritant smoke in the general atmosphere.
  - a. Rooms approved for qualitative fit testing are the EMS lab (OE1- 115) or other locations designated by the Program Administrator.
- B. Quantitative fit tests will be performed in locations designated by the fit tester.
- C. Scheduled times for fit testing shall be coordinated by the fit tester.
- D. In Instruction, the Deans are responsible for coordinating fit testing for employees.
- E. Employees must also complete the online training module in respiratory protection prior to fit testing. The module will be accessed through Safe Colleges on the district website.
- F. As noted above, a fit tester must be certified to conduct the testing. At this time, the following people\* are approved to perform fit testing as applicable to their respective areas.
  - a. Fire Tech: Dan Sullivan, Matt Smerber, and Rich Solometo
  - b. Anatomy and Physiology, Emergency Medical Services (EMS), Health and Wellness Center, Respiratory Tech: John Commander and Eileen Verosik
  - c. Part-time employees performing fit tests will be paid for their time by establishing non-instructional contracts.
- G. As a part of fit testing, employees will be trained in "donning and doffing" equipment. The entire process should take about an hour and part-time employees will be paid for 2 hours to cover the training and the evaluation time.
- H. Once fit testing is completed and the employee passes, the tester provides a card to the employee and sends an email to Administrative Services (to the Administrative Coordinator). Administrative Services will then inform HR and the Administrator. The tester will forward the hard copy of the fit test record to HR.
- FOR HOSPITAL BASED EMPLOYEES If preceptors have been trained and tested in their work environment and will use the hospitals equipment, the Dean shall obtain training records and fit test records from such employees



### APPENDIX C: Information for Employees Who Voluntarily Use Respirators

(Title 8 CCR 5155 Appendix D)

Respirators are an effective method of protection against designated hazards when properly selected and worn. 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. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, of if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

### You should do the following:





## Appendix D: Fit Test Protocol

The following individuals need to be fit-tested:

- Any full or part-time employee whose duties require the use of respiratory protection. See below for information related to part-timers who work ONLY in the hospital setting.
- > Any student whose classroom, clinical, or field experience requires respiratory protection.

#### Medical Clearances for Employees

- All employees (including student workers) who are required to be fit tested must first have medical clearance. The Program Administrator and Supervisors (VP Administrative Services and Deans) are responsible for identifying the employees who need to be fit tested and sending the list of names and assignments to Administrative Services.
- > The firm SBCCD is using for preliminary testing is 3M, which provides an online option. Profiles for different jobs/fields have been created by Administrative Services to assure that the proper questions are addressed.
- When Administrative Services receives the list of employees, they match the employee to the correct profile and then informs the employee to complete the online evaluation.
- Once the employee completes the online evaluation, any "red flags" are identified that require additional medical evaluation. The employee and Administrative Services will receive an email showing the employee status (passed or referral).
- Administrative Services will then notify the administrator if the employee is medically cleared. If the employee passes, he/she is ready for fit testing.
- > If the employee requires additional medical evaluation, they will be referred to LLU.
- Facilitators /Professional Experts who work at their own organization (clinical/field classes for CHC students) need to provide proof of recent (within in one year) fit test to the appropriate Dean or Program Administrator.

### Seal Check and Fit Test protocol

#### **Respirator Seal Check Procedure**

The individual who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and negative pressure checks listed below or the manufacturer's recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit tests.



# Positive Pressure Check

• Close off the exhalation valve and exhale gently into the face piece.

- Face fit is considered satisfactory if slight positive pressure can be built up inside the face piece without any evidence of outward leakage of air at the seal.
- •For most respirators, this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

Negative Pressure Test

- Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s).
- Inhale gently so that the face piece collapses slightly, and hold breath for ten seconds.
- If the face piece remains in a slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory

### Fit Testing Procedures

There are several methods available for testing the face to face piece seal of a respirator. Qualitative fit testing procedures shall be conducted only on negative pressure air purifying respirators that must achieve a fit factor of 100 or less.

#### QUALITATIVE FIT TEST PROCEDURES:

- Negative User Seal Check: With the intake port(s) blocked, the wearer inhales gently and holds. The respirator should collapse slightly on the wearer's face. No leakage around the face seal should be noted while maintaining a negative pressure inside the respirator for several seconds.;
- Positive User Seal Check: With the exhaust port(s) covered, the wearer exhales gently to generate a slight positive pressure within the face piece. No leakage outward around the seal should be noted.
- ▲ NOTE: Positive and negative user seal checks are not feasible with all brands of respirators. To determine if



the test subject can detect the irritant smoke, a weak concentration is directed at the subject prior to donning the respirator;

- If the wearer fails to obtain a good facial fit on either the negative or positive user seal checks, the head straps should be adjusted and the procedure repeated. Extreme or uncomfortable tightening of the respirator straps to obtain an adequate face seal is prohibited
- If a respirator cannot be made to fit by adjusting the straps, a different model and/or size should be tried.

Once a satisfactory fit is obtained on the negative and positive user seal checks, the quality of the facial seal is verified by the use of stannic oxychloride (an irritant smoke). Air purifying respirators must be equipped with P100 High Efficiency Particulate Air (HEPA) filters for this test. Testing procedures should proceed as follows:

#### **IRRITANT SMOKE TEST PROCEDURES:**

- ▲ Inform the employee of the purpose and procedure for irritant smoke testing.
- ▲ Instruct the employee to remove contact lenses if he or she is wearing them. If the employee must wear eyeglasses, he or she will be fitted for a half-mask respirator while wearing these glasses. If a full face piece respirator is to be fitted, eyeglasses must be removed. A spectacle insert can be purchased to accommodate eyeglass wearers who must use full face piece respirators.
- To determine if the test subject can detect the irritant smoke, a weak concentration is directed at the subject prior to donning the respirator.
- Once sensitivity to irritant smoke is verified, have the test subject don their respirator performing the correct user seal checks.
- ▲ Instruct the employee to close his or her eyes tightly and to breathe normally.
- Irritant smoke is puffed around the entire face seal and cartridge seal, slowly at first and with increasing smoke density if the wearer experiences no irritation.
- Smoke is continually introduced as the employee goes through a series of exercises. These include slowly moving his or her head from side to side in 180 degree arcs, up and down 90 degrees, bending over, deep breathing and talking.
- ▲ For the talking exercise, the test subject may choose to recite a song or poem, count backwards from 100, or repeat the Rainbow Passage (see below). Each exercise should be continued for at least 15 seconds. If no discomfort from the smoke is noted, the fit testing is complete. If coughing, gagging or irritation occurs, readjust the respirator straps or select a different model and repeat negative and positive user seal checks.



# Rainbow Passage:

"When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow."



# **APPENDIX E: Respirator Cleaning Procedures**

#### OSHA Respirator Cleaning Procedures

#### http://www.dir.ca.gov/title8/5144b\_2.html

These procedures are provided for employer use when cleaning respirators. They are general in nature, and the employer as an alternative may use the cleaning recommendations provided by the manufacturer of the respirators used by their employees, provided such procedures are as effective as those listed here in Appendix B-2. Equivalent effectiveness simply means that the procedures used must accomplish the objectives set forth in Appendix B-2, i.e., must ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

#### Procedures for Cleaning Respirators.

- A. Remove filters, cartridges, or canisters. Disassemble face pieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.
- B. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.
- C. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.
- D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
  - a. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
  - Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
  - c. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
- E. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on face pieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
- F. Components should be hand-dried with a clean lint-free cloth or air-dried.
- G. Reassemble face piece, replacing filters, cartridges, and canisters where necessary.
- H. Test the respirator to ensure that all components work properly.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY: 1. New appendix B-2 to section 5144 filed 8-25-98; operative 11-23-98 (Register 98, No. 35).



# **APPENDIX F: Medical Evaluation Questionnaire**

- I. SBVC Student Medical Evaluation Questionnaires- link are listed under Appendix A "SBVC Site-Specific Information".
- II. CHC Student Medical Evaluation Questionnaires- link are listed under Appendix B "CHC Site-Specific Information".
- III. SBCCD Employees Medical Evaluation Questionnaires and Medical Clearance forms: Follow procedures outlined in Appendix A, Item II.
- IV. OSHA Respirator Medical Evaluation Questionnaire (for reference). http://www.dir.ca.gov/title8/5144c.html



# **APPENDIX: Respirator Selection**

### Basis for Selection of Respirators

- I. Respirators shall be chosen based on identification and evaluation of hazard, in accordance with the NIOSH Respirator Decision Logic.
  - a. Hazard identification shall include a review of the chemicals in use with respect to their hazards, the availability of respirators for the chemical, and the potential of exposures.
  - b. If any air monitoring has been done to determine the level of exposures, this data will be considered in respirator selection.
- II. Only NIOSH approved respirators shall be used. Parts and cartridges shall be used only with the mask for which they are intended.



# APPENDIX H: Respiratory Protection Training Checklist

### **Employees can demonstrate knowledge of:**

The general requirements and review of this program and the OSHA respiratory protection standard.
Medical evaluation process for fit testing.
Why the respirator is necessary.
How improper fit, usage or maintenance can compromise the protective effect of the respirator.
The limitations and capabilities of the respirator.
How to use the respirator effectively in emergencies including situations in which the respirator malfunctions.
How to inspect, put on and remove, use and check the seals of the respirator.
The procedures for maintenance and storage of the respirator.
How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
Personal protective equipment (PPE) required to perform work tasks.
Where to go to find a written copy of SBCCD's Respiratory Protection Program.
That training is to be understandable to employees.
That training is provided prior to employee use of a respirator.
Appendix D of the OSHA standard (APPENDIX C of this program) is provided to voluntary users.

NOTE- Retraining must be provided annually, upon changes in workplace conditions that affect respirator use, because of inadequate knowledge on the part of an employee, and whenever retraining appears necessary to ensure safe respirator use.

San Bernardino Community College District

Safety Program Approval

Safety Program: SBVC & CHC, Respiratory Protection Program Consolidated - San Bernardino Valley College (SBVC) & Crafton Hills College (CHC) – Drafted 05/22/15

Reviewed by: \_\_\_\_

Date 512-3115 Whitney Fields, District Environmental Health & Safety Administrator

all Approved by: \_\_\_\_\_Date\_\_\_\_6 - / - / 5

Scott Stark, SBVC, Vice President Administrative Services/Business Services

\_\_\_\_\_Date\_\_6-2-15 Approved by:

Gloria Fisher, J.D., SBVC, President