



SBVC RESPIRATORY PROTECTION PROGRAM

1.0 PURPOSE

San Bernardino Valley College 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 San Bernardino Valley College 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 San Bernardino Valley College; 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 are outlined in Table 1 in the Scope and Application section of this program.

In addition, some employees have expressed a desire to wear respirators during certain operations that do not require respiratory protection. As a general policy San Bernardino Valley College will review each of these requests on a case-by case basis. As outlined in the Scope and Application section of this program, voluntary respirator use is subject to certain requirements of this program.

2.0 SCOPE and APPLICATION

This program applies to all employees who 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, must be enrolled in the Valley College's Respiratory Protection Program. Programs that utilize respiratory protection include:

Student Health Services

Chemistry & Life Sciences

Vocational & Tech Programs

Art & Ceramics

3.0 RESPONSIBILITIES

Program Administrator

The Program Administrator for San Bernardino Valley College is James Hansen, Vice President of Administrative Services. 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 with Irritant Smoke.
- 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:

- Only wear the respirator for the conditions specified in the Fit Test Letter, found in **Appendix A** of this document.
- 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.

4.0 PROGRAM ELEMENTS

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:

1. Identification and development of a list of hazardous substances used in the workplace, by department, or work process.
2. Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.

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 Valley College employees. San Bernardino Valley College 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 A** 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
- 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.

Fit Testing

Fit testing is required for Valley College employees who are required to wear respirators. Details of the fit testing process will be determined by the SBCCD Safety Consultant, Keenan & Associates. Fit testing will occur:

- Prior to being allowed to wear any respirator with a tight fitting face piece.
- Annually thereafter
- When there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, etc.).

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.

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 either the positive or negative pressure check (depending on which test works best for them) specified in **Appendix B** 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 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.

Note: The employee's supervisor will ensure an adequate supply of appropriate cleaning and disaffection 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.

The training course will cover the following topics:

- The San Bernardino Valley College Respiratory Protection Program
- The Cal/OSHA Respiratory Protection standard
- Respiratory hazards encountered at San Bernardino Valley College and their health effects
- Proper selection and use of respirators
- Limitations of respirators
- Respirator donning and user seal (fit) checks
- Fit testing
- Maintenance and storage
- Medical signs and symptoms which may indicate the respirator is not functioning properly or providing adequate protection

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.

5.0 PROGRAM EVALUATION

The San Bernardino Valley College 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).

6.0 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

Information for Employees who Voluntarily Use Respirators

Title 8 CCR 5155 Appendix D

Information for Employees who Voluntarily Use Respirators

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, or 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:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed 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.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Appendix B
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.

I. Face Piece Positive and/or Negative Pressure Checks

A. 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.

B. Negative Pressure Check. 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. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove.

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. The qualitative fit testing procedures shall be conducted as follows:

1. 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.

2. 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).

3. 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.
4. If a respirator cannot be made to fit by adjusting the straps, a different model and/or size should be tried.

Irritant Smoke Test: 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:

- a. Inform the employee of the purpose and procedure for irritant smoke testing.
- b. 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.
- c. To determine if the test subject can detect the irritant smoke, a weak concentration is directed at the subject prior to donning the respirator.
- d. Once sensitivity to irritant smoke is verified, have the test subject don their respirator performing the correct user seal checks.
- e. Instruct the employee to close his or her eyes tightly and to breathe normally.
- f. 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.

- g. 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."