



COUNTY OF SULLIVAN

Respiratory Protection Program

Respiratory Protection

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Respiratory Protection Program

I. Objective

This Respiratory Protection Program (RPP) establishes the County of Sullivan's policies and procedures to protect employees from airborne hazards and to comply with OSHA 29 CFR 1910.134 and, when applicable, 29 CFR 1926.103. The program covers respirator selection, medical evaluation, fit testing, use, maintenance, training, recordkeeping, and program evaluation. Engineering controls remain the primary means of exposure reduction; respirators are used when controls are infeasible, while being implemented, or for non-routine/emergency conditions.

II. Assignment of Responsibility

A. Employer

The County of Sullivan ("the County") is responsible for supplying appropriate respirators to employees whenever they are required for health protection. The County ensures that respirators provided are suitable for the specific application, and employees will not be charged for any respiratory protection equipment, related training, or medical evaluations.

B. Program Administrator

The designated Program Administrator for the County of Sullivan is JOHN HAUSCHILD. The Program Administrator oversees the implementation and management of the respiratory protection program, including the following duties:

- Identifying work areas, processes, or tasks that necessitate respirator use
- Evaluating respiratory hazards present in the workplace
- Selecting appropriate respiratory protection options
- Monitoring respirator usage to confirm compliance with specifications
- Arranging for and/or conducting training sessions
- Ensuring proper storage and maintenance of respiratory equipment
- Conducting quantitative or qualitative fit testing with Bitrex
- Administering the medical surveillance program
- Maintaining all records required by the program
- Evaluating and updating the written program as necessary

C. Supervisors

Supervisors are tasked with ensuring that the respiratory protection program is correctly implemented within their respective areas. Along with understanding the program requirements for their own protection, supervisors must guarantee that all employees under their supervision comply with the program. Supervisor responsibilities include:

- Ensuring all employees (including new hires) receive appropriate training, fit testing, and annual medical evaluations
- Making suitable respirators and accessories available
- Being aware of tasks that require respiratory protection
- Enforcing proper respirator use when required
- Ensuring respirators are correctly cleaned, maintained, and stored according to program procedures
- Verifying that respirators fit properly and do not cause discomfort
- Continuously monitoring work areas and operations for respiratory hazards
- Coordinating with the Program Administrator regarding respiratory hazards or other program concerns

D. Employees

Employees are responsible for wearing the assigned respirator whenever and wherever required, following the training provided. Employees must also:

- Maintain and care for their respirators as instructed, protect them from damage, and store them in a clean, sanitary location
- Inform their supervisor if the respirator no longer fits properly and request a replacement that fits correctly
- Notify their supervisor or the Program Administrator if they identify any unaddressed respiratory hazards or have other concerns about the program
- Use respiratory protection as instructed by the manufacturer and in accordance with received training

III. Applicability

This RPP applies to all employees required to wear respirators during normal, non-routine, or emergency operations. Departments covered include DPW, and the Division of Public Safety (Fire/EMS/Public Safety).

Voluntary Use:

- Filtering facepieces (dust masks): Employees may voluntarily use dust masks. The County will provide OSHA 1910.134 Appendix D information. No medical evaluation is required for voluntary dust mask use.
- Voluntary tight-fitting half-mask APR: Permitted case-by-case. Requires medical evaluation and adherence to use, cleaning, maintenance, and storage provisions of this RPP.

IV. Program

A. Hazard Assessment & Respirator Selection

The Program Administrator conducts hazard evaluations for operations, processes, or areas where airborne contaminants may be present (routine or emergency). Evaluations include workplace observation, process review, employee/supervisor interviews, and exposure monitoring per OSHA/NIOSH methods. A list of employees and appropriate respiratory protection will be maintained by the Program Administrator. Assessments are updated when conditions change. If an employee feels that respiratory protection is needed during a particular activity, they are to contact their supervisor or the Program Administrator. The Program Administrator will evaluate the potential hazard and arrange for outside assistance as necessary. The Program Administrator will then communicate the results of that assessment to the employees. If it is determined that respiratory protection is necessary, all other elements of the respiratory protection program will be in effect for those tasks, and the respiratory program will be updated accordingly.

Respirator Selection: Only NIOSH-approved respirators will be used. Selection considers contaminant type/concentration, PELs/IDLH conditions, task duration, workload, environmental factors, and protection factors. If oxygen-deficient, IDLH, or above maximum use concentrations, use supplied-air respirators with escape capability or SCBA as applicable.

B. Medical Evaluation

Employees who are required to wear respirators, and employees who voluntarily choose a tight-fitting APR, must receive a medical evaluation consistent with OSHA 1910.134 Appendix C prior to fit testing or use. Evaluations are performed by a licensed physician or other licensed health care professional (PLHCP) at *Partners in Safety*,

where all company medical services are provided, will provide the medical eval. Employees may complete the questionnaire on County time and may consult the PLHCP as requested. Re-evaluations occur when symptoms arise, the PLHCP or supervisor requests, program observations indicate a need, or work conditions change.

The County retains only the PLHCP written medical opinion and follows confidentiality requirements for medical questionnaires.

Medical evaluation procedure is as follows:

1. The medical evaluation will be conducted using the questionnaire provided in Appendix C of the OSHA Respiratory Protection Standard. The Program Administrator will provide a copy of this questionnaire to all employees requiring medical evaluations.
2. To the extent feasible, the company will aid employees who are unable to read the questionnaire. When this is not possible, the employee will be sent directly to the physician for medical evaluation.
3. All affected employees will be given a copy of the medical questionnaire to complete, along with a stamped and addressed envelope for mailing the questionnaire to the company physician. Employees will be permitted to complete the questionnaire on company time.
4. Follow-up medical exams will be granted to employees as required by the Standard, and/or as deemed necessary by the evaluating physician.
5. All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
6. The Program Administrator shall provide the evaluating physician with a copy of this Program, a copy of the OSHA Respiratory Protection Standard, the list of hazardous substances by work area, and the following information about each employee requiring evaluation:
 - a. Their work area or job title;
 - b. Proposed respirator type and weight;
 - c. Length of time required to wear respirator;
 - d. Expected physical workload (light, moderate or heavy);
 - e. Potential temperature and humidity extremes; and
 - f. Any additional protective clothing required.
7. Positive pressure air purifying respirators will be provided to employees as required by medical necessity.
8. After an employee has received clearance to wear their respirator, additional medical evaluations will be provided under the following circumstances:
 - A. The employee reports signs and/or symptoms related to their ability to use the respirator, such as shortness of breath, dizziness, chest pains or wheezing.
 - B. The evaluating physician or supervisor informs the Program Administrator that the employee needs to be reevaluated.
 - C. Information found during the implementation of this program, including observations made during the fit testing and program evaluation, indicates a need for reevaluation.
 - D. A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

A list of County of Sullivan titles currently included in medical surveillance is provided in Attachment D of this program.

All examinations and questionnaires are to remain confidential between the employee and the physician. The Program Administrator will only retain the physician's written recommendations regarding each employee's ability to wear a respirator.

C. Training

The Program Administrator will provide training to respirator users and their supervisors on the contents of the County of Sullivan Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection Standard. All affected employees and their supervisors will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to supervising employees that must wear respirators.

The training course will cover the following topics:

1. The County of Sullivan Respiratory Protection Program;
2. The OSHA Respiratory Protection Standard (29 CFR 1910.134);
3. Respiratory hazards encountered at the County of Sullivan and their health affects;
4. Proper selection and use of respirators;
5. Limitations of respirators;
6. Respirator donning and user seal (fit) checks;
7. Fit testing;
8. Emergency use procedures;
9. Maintenance and storage; and
10. Medical signs and symptoms limiting the effective use of respirators.

Employees will be initially trained and retrained annually or as needed (e.g., if they change departments or work processes and need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test. Respirator training will be documented by the Program Administrator, and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested. Employees who voluntarily use dust masks do not have to participate in respiratory protection training.

D. Fit Testing

Fit testing is required for tight-fitting facepieces prior to initial use, annually, whenever a different facepiece (make/model/size) is used, or when physical changes could affect fit. Employees will be fit tested with the make, model, and size of respirator so they may find the optimal fit. PF 10 devices may use QLFT or QNFT; PF > 10 requires QNFT. Tight-fitting SAR facepieces and tight-fitting PAPRs are fit tested in the negative-pressure mode per manufacturer adapters; restore facepieces to NIOSH-approved configuration before workplace use.

The Program Administrator will ensure fit tests are completed in accordance with the OSHA respiratory protection standard.

E. General Respirator Use Procedures

1. Employees will use their respirators under conditions specified in this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.
2. All employees shall conduct user seal checks each time they wear their respirators. Employees shall use either the positive or negative pressure check (depending on which test works best for them) as specified in the OSHA Respiratory Protection Standard.
 - A. Positive Pressure Test: This test is performed by closing off the exhalation valve with your hand. Breathe air into the mask. The face fit is satisfactory if some pressure can be built up inside the mask without any air leaking out between the mask and the face of the wearer.
 - B. Negative Pressure Test: This test is performed by closing the inlet openings of the cartridge with the palm of your hand. Some masks may require that the filter holder be removed to seal off the intake valve.

Inhale gently so that a vacuum occurs within the face piece. Hold your breath for ten (10) seconds. If the vacuum remains, and no inward leakage is detected, the respirator fits properly.

3. All employees shall be permitted to leave the work area to go to the locker room to maintain their respirator for the following reasons:
 - A. To clean their respirator if it is impeding their ability to work;
 - B. To change filters or cartridges;
 - C. To replace parts; or
 - D. To inspect respirator if it stops functioning as intended.

Employees should notify their supervisor before leaving the area.

4. Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures that would prevent a proper seal. Employees are not permitted to wear headphones, jewelry, or other items that may interfere with the seal between the face and the face piece.
5. Before and after each use of a respirator, an employee or immediate supervisor must conduct an inspection of tightness or connections and the condition of the face piece, headbands, valves, filter holders and filters. Questionable items must be addressed immediately by the supervisor and/or Program Administrator.

F. Cartridge & Filter Change Schedules

Particulate (e.g., P100) filters: Change when breathing resistance increases, when filters become soiled/damaged, or per manufacturer guidance.

Gas/Vapor cartridges (e.g., OV/AG): Change schedule per OSHA 1910.134(d)(3)(iii)(B) using manufacturer service-life recommendations.

G. Cleaning, Maintenance, and Storage

Users clean and disinfect respirators after each use; inspect before use and during cleaning; report and remove defective units; only manufacturer-approved parts used for repairs.

The following procedure is to be used when cleaning and disinfecting reusable respirators:

1. Disassemble respirator, removing any filters, canisters, or cartridges.
2. Wash the face piece and all associated parts (except cartridges and elastic headbands) in an approved cleaner-disinfectant solution in warm water (about 120 degrees Fahrenheit). Do not use organic solvents. Use a hand brush to remove dirt.
3. Rinse completely in clean, warm water.
4. Disinfect all facial contact areas by spraying the respirator with an approved disinfectant.
5. Air dry in a clean area.
6. Reassemble the respirator and replace any defective parts. Insert new filters or cartridges and make sure the seal is tight.
7. Place respirator in a clean, dry plastic bag or other airtight container.

The Program Administrator will ensure an adequate supply of appropriate cleaning and disinfection materials at the cleaning station. If supplies are low, employees should notify their supervisor, who will inform the Program Administrator.

Respirators are to be properly maintained at all times in order to ensure that they function properly and protect employees adequately. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer. Repairs to regulators or alarms of atmosphere-supplying respirators will be conducted by the manufacturer.

1. All respirators shall be inspected routinely before and after each use.

2. Respirators kept for emergency use shall be inspected after each use, and at least monthly by the Program Administrator to assure that they are in satisfactory working order
3. The Respirator Inspection Checklist (Attachment E) will be used when inspecting respirators.
4. A record shall be kept of inspection dates and findings for respirators maintained for emergency use.
5. Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards. Situations when this is permitted include:
 - a. Washing face and respirator face piece to prevent any eye or skin irritation;
 - b. Replacing the filter, cartridge or canister;
 - c. Detection of vapor or gas breakthrough or leakage in the face piece; or
 - d. Detection of any other damage to the respirator or its components.

After inspection, cleaning, and necessary repairs, respirators shall be stored appropriately to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.

1. Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and will store their respirator in a plastic bag in the designated area. Each employee will have his/her name on the bag and that bag will only be used to store that employee's respirator.
2. Respirators shall be packed or stored so that the face piece and exhalation valve will rest in a near normal position.
3. Respirators shall not be placed in places such as lockers or toolboxes unless they are in carrying cartons.
4. Respirators maintained at stations and work areas for emergency use shall be stored in compartments built specifically for that purpose, be quickly accessible at all times, and be clearly marked.
5. The Program Administrator will store County of Sullivan supply of respirators and respirator components in their original manufacturer's packaging in the designated locations per division breakdown in letter L.

H. Respirator Malfunctions and Defects

1. For any malfunction of an ASR (atmosphere-supplying respirator), such as breakthrough, face piece leakage, or improperly working valve, the respirator wearer should inform his/her supervisor that the respirator no longer functions as intended, and go to the designated safe area to maintain the respirator. The supervisor must ensure that the employee either receives the needed parts to repair the respirator or is provided with a new respirator. All workers wearing atmosphere-supplying respirators will work with a buddy. The Program Administrator shall develop and inform employees of the procedures to be used when a buddy is required to assist a coworker who experiences an ASR malfunction.
2. Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his/her supervisor. Supervisors will give all defective respirators to the Program Administrator. The Program Administrator will decide whether to:
 - B. temporarily take the respirator out of service until it can be repaired;
 - C. perform a simple fix on the spot, such as replacing a head strap; or
 - D. dispose of the respirator due to an irreparable problem or defect.

When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service, and the employee will be given a replacement of a similar make, model, and size. All tagged out respirators will be kept in the Maplewood location.

I. Supplied-Air Respirators (SAR) & Breathing Air

- a. All employees required to use supplied-air respirators (SAR) will be provided with breathing air-quality air.
- b. Compressed breathing air must meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G7.1-1989, to include:
 - Oxygen content (v/v) of 19.5-23.5%.
 - Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less.
 - Carbon monoxide (CO) content of 10 ppm or less.
 - Carbon dioxide content of 1,000 ppm or less.
 - Lack of noticeable odor.
- c. Compressors used to supply breathing air to respirators must be constructed and situated to:
 - Prevent entry of contaminated air into the air-supply system.
 - Minimize moisture content so that the dew point at 1 atmosphere pressure is 10 degrees F (5.56 deg C) below the ambient temperature.
 - Have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Sorbent beds and filters shall be maintained and replaced or refurbished periodically following the manufacturer's instructions.
 - Have a tag containing the most recent change date and the signature of the person authorized by the employer to perform the change. The tag shall be maintained at the compressor.
 - For compressors that are not oil-lubricated, the employer shall ensure that carbon monoxide levels in the breathing air do not exceed 10 ppm.
 - For oil-lubricated compressors, the employer shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm.
- d. Breathing air couplings must be incompatible with outlets for nonrepairable work site air or other gas systems.
- e. Breathing airlines must meet the NIOSH respirator certification for the respirator used.

J. Emergency Procedures

In emergency situations where an atmosphere exists in which the wearer of the respirator could be overcome by a toxic or oxygen-deficient atmosphere, the following procedure should be followed.

1. When the alarm sounds, employees in the affected area must immediately don their emergency escape respirator, shut down their process equipment, and exit the work area.
2. All other employees must immediately evacuate the building. County of Sullivan Emergency Action Plan describes these procedures (including proper evacuation routes and rally points) in greater detail.
3. Employees must never enter a dangerous atmosphere without at least one additional person present. The additional person must remain in the safe atmosphere.
 - Communications (voice, visual or signal line) must be maintained between both individuals and all present.
 - Respiratory protection in these instances is for escape purposes only. County of Sullivan employees are not trained as emergency responders and are not authorized to act in such a manner.

K. Recordkeeping

The Program Administrator maintains medical clearance opinions, fit test records, training records, equipment inspection logs, and the written program. Retention: medical opinions for duration of employment + 30 years (29 CFR 1910.1020); fit test records at least until the next fit test; training records per recommended 5 years, emergency

equipment inspection logs for duration of equipment service + 1 year. Completed medical questionnaires remain confidential with the PLHCP; the County retains only the written medical opinion.

L. Program Evaluation

The Program Administrator will conduct periodic evaluations annually of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and a review of records. Items to be considered will include:

1. comfort;
2. ability to breathe without objectionable effort;
3. adequate visibility under all conditions
4. provisions for wearing prescription glasses;
5. ability to perform all tasks without undue interference; and
6. confidence in the face piece fit.

*Employees who are required to wear tight-fitting respirators must remain clean-shaven in areas where facial hair could interfere with the respirator seal or valve function, in accordance with OSHA 29 CFR 1910.134(g)(1)(i). Employees who report to work not in compliance with this requirement will not be permitted to perform tasks requiring respirator use until compliance is achieved. Failure to comply with this policy may result in corrective action consistent with established policy, disciplinary procedures and applicable collective bargaining agreements.

Identified problems will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to County management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections. The program shall be always made available to all employees. This program can be obtained from the Program Administrator, employee practices handbook, or designee/supervisor at the following locations:

DPW, Program Administrator: Ryan Brown (845)866-8397	Printed copy at each location with SDS Sheets	Maplewood, Govt Center, Jail, Landfill, Barryville, Callicoon, Livingston Manor, Liberty
Public Safety, Program Administrator: John Hauschild (845)807-0133	Printed copy available with SDS Sheets	Richard A. Martinovic Public Safety Training Center

Appendix A to § 1910.134 - Fit Testing Procedures (Mandatory)

Fit Testing Procedures - General Requirements

The employer shall conduct fit testing using the following procedures. The requirements in this appendix apply to all OSHA-accepted fit test methods, both QLFT and QNFT.

1. The test subject shall be allowed to pick the most acceptable respirator from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
2. Prior to the selection process, the test subject shall be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit. A mirror shall be available to assist the subject in evaluating the fit and positioning of the respirator. This instruction may not constitute the subject's formal training on respirator use, because it is only a review.
3. The test subject shall be informed that he/she is being asked to select the respirator that provides the most acceptable fit. Each respirator represents a different size and shape, and if fitted and used properly, will provide adequate protection.
4. The test subject shall be instructed to hold each chosen facepiece up to the face and eliminate those that obviously do not give an acceptable fit.
5. The more acceptable facepieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn at least five minutes to assess comfort. Assistance in assessing comfort can be given by discussing the points in the following item A.6. If the test subject is not familiar with using a particular respirator, the test subject shall be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.
6. Assessment of comfort shall include a review of the following points with the test subject and allowing the test subject adequate time to determine the comfort of the respirator:
 - (a) Position of the mask on the nose
 - (b) Room for eye protection
 - (c) Room to talk
 - (d) Position of mask on face and cheeks
7. The following criteria shall be used to help determine the adequacy of the respirator fit:
 - (a) Chin properly placed;
 - (b) Adequate strap tension, not overly tightened;
 - (c) Fit across nose bridge;
 - (d) Respirator of proper size to span distance from nose to chin;
 - (e) Tendency of respirator to slip;
 - (f) Self-observation in mirror to evaluate fit and respirator position.
8. The test subject shall conduct a user seal check, either the negative and positive pressure seal checks described in appendix B-1 of this section or those recommended by the respirator manufacturer which provide equivalent protection to the procedures in appendix B-1. Before conducting the negative and positive pressure checks, the subject shall be told to seat the mask on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another facepiece shall be selected and retested if the test subject fails the user seal check tests.
9. The test shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit shall be altered or removed.
10. If a test subject exhibits difficulty in breathing during the tests, she or he shall be referred to a physician or other licensed health care professional, as appropriate, to determine whether the test subject can wear a respirator while performing her or his duties.
11. If the employee finds the fit of the respirator unacceptable, the test subject shall be given the opportunity to select a different respirator and to be retested.
12. Exercise regimen. Prior to the commencement of the fit test, the test subject shall be given a description of the fit test and the test subject's responsibilities during the test procedure. The description of the process shall include a description of the test exercises that the subject will be performing. The respirator to be tested shall be worn for at least 5 minutes before the start of the fit test.
13. The fit test shall be performed while the test subject is wearing any applicable safety equipment that may be worn during actual respirator use which could interfere with respirator fit.
14. Test Exercises.
 - (a) Employers must perform the following test exercises for all fit testing methods prescribed in this appendix, except for the two modified ambient aerosol CNC quantitative fit testing protocols, the CNP quantitative fit testing protocol, and the CNP REDON quantitative fit testing protocol. For the modified ambient aerosol CNC quantitative fit testing protocols, employers shall ensure that the test subjects (*i.e.*, employees) perform the exercise procedure specified in Part I.C.4(b) of this appendix for

full-facepiece and half-mask elastomeric respirators, or the exercise procedure specified in Part I.C.5(b) for filtering facepiece respirators. Employers shall ensure that the test subjects (i.e., employees) perform the exercise procedure specified in Part I.C.6(b) of this appendix for the CNP quantitative fit testing protocol, or the exercise procedure described in Part I.C.7(b) of this appendix for the CNP REDON quantitative fit testing protocol. For the remaining fit testing methods, employers shall ensure that the test exercises are performed in the appropriate test environment in the following manner:

- (1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.
- (2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.
- (3) Turning head side to side. Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.
- (4) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).
- (5) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.

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.

- (6) Grimace. The test subject shall grimace by smiling or frowning. (This applies only to QNFT testing; it is not performed for QLFT)
- (7) Bending over. The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.
- (8) Normal breathing. Same as exercise (1).
- (b) Each test exercise shall be performed for one minute except for the grimace exercise which shall be performed for 15 seconds. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

Bitrex™ (Denatonium Benzoate) Solution Aerosol Qualitative Fit Test Protocol

The Bitrex™ (Denatonium benzoate) solution aerosol QLFT protocol uses the published saccharin test protocol because that protocol is widely accepted. Bitrex is routinely used as a taste aversion agent in household liquids which children should not be drinking and is endorsed by the American Medical Association, the National Safety Council, and the American Association of Poison Control Centers. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

(a) Taste Threshold Screening.

The Bitrex taste threshold screening, performed without wearing a respirator, is intended to determine whether the individual being tested can detect the taste of Bitrex.

- (1) During threshold screening as well as during fit testing, subjects shall wear an enclosure about the head and shoulders that is approximately 12 inches (30.5 cm) in diameter by 14 inches (35.6 cm) tall. The front portion of the enclosure shall be clear from the respirator and allow free movement of the head when a respirator is worn. An enclosure substantially similar to the 3M hood assembly, parts # FT 14 and # FT 15 combined, is adequate.
- (2) The test enclosure shall have a 3/4 inch (1.9 cm) hole in front of the test subject's nose and mouth area to accommodate the nebulizer nozzle.
- (3) The test subject shall don the test enclosure. Throughout the threshold screening test, the test subject shall breathe through his or her slightly open mouth with tongue extended. The subject is instructed to report when he/she detects a bitter taste.
- (4) Using a DeVilbiss Model 40 Inhalation Medication Nebulizer or equivalent, the test conductor shall spray the Threshold Check Solution into the enclosure. This Nebulizer shall be clearly marked to distinguish it from the fit test solution nebulizer.
- (5) The Threshold Check Solution is prepared by adding 13.5 milligrams of Bitrex to 100 ml of 5% salt (NaCl) solution in distilled water.
- (6) To produce the aerosol, the nebulizer bulb is firmly squeezed so that the bulb collapses completely, and is then released and allowed to fully expand.

- (7) An initial ten squeezes are repeated rapidly and then the test subject is asked whether the Bitrex can be tasted. If the test subject reports tasting the bitter taste during the ten squeezes, the screening test is completed. The taste threshold is noted as ten regardless of the number of squeezes actually completed.
 - (8) If the first response is negative, ten more squeezes are repeated rapidly and the test subject is again asked whether the Bitrex is tasted. If the test subject reports tasting the bitter taste during the second ten squeezes, the screening test is completed. The taste threshold is noted as twenty regardless of the number of squeezes actually completed.
 - (9) If the second response is negative, ten more squeezes are repeated rapidly and the test subject is again asked whether the Bitrex is tasted. If the test subject reports tasting the bitter taste during the third set of ten squeezes, the screening test is completed. The taste threshold is noted as thirty regardless of the number of squeezes actually completed.
 - (10) The test conductor will take note of the number of squeezes required to solicit a taste response.
 - (11) If the Bitrex is not tasted after 30 squeezes (step 10), the test subject is unable to taste Bitrex and may not perform the Bitrex fit test.
 - (12) If a taste response is elicited, the test subject shall be asked to take note of the taste for reference in the fit test.
 - (13) Correct use of the nebulizer means that approximately 1 ml of liquid is used at a time in the nebulizer body.
 - (14) The nebulizer shall be thoroughly rinsed in water, shaken to dry, and refilled at least each morning and afternoon or at least every four hours.
- (b) Bitrex Solution Aerosol Fit Test Procedure.
- (1) The test subject may not eat, drink (except plain water), smoke, or chew gum for 15 minutes before the test.
 - (2) The fit test uses the same enclosure as that described in 4. (a) above.
 - (3) The test subject shall don the enclosure while wearing the respirator selected according to section I. A. of this appendix. The respirator shall be properly adjusted and equipped with any type particulate filter(s).
 - (4) A second DeVilbiss Model 40 Inhalation Medication Nebulizer or equivalent is used to spray the fit test solution into the enclosure. This nebulizer shall be clearly marked to distinguish it from the screening test solution nebulizer.
 - (5) The fit test solution is prepared by adding 337.5 mg of Bitrex to 200 ml of a 5% salt (NaCl) solution in warm water.
 - (6) As before, the test subject shall breathe through his or her slightly open mouth with tongue extended, and be instructed to report if he/she tastes the bitter taste of Bitrex.
 - (7) The nebulizer is inserted into the hole in the front of the enclosure and an initial concentration of the fit test solution is sprayed into the enclosure using the same number of squeezes (either 10, 20 or 30 squeezes) based on the number of squeezes required to elicit a taste response as noted during the screening test.
 - (8) After generating the aerosol, the test subject shall be instructed to perform the exercises in section I. A. 14. of this appendix.
 - (9) Every 30 seconds the aerosol concentration shall be replenished using one half the number of squeezes used initially (e.g., 5, 10 or 15).
 - (10) The test subject shall indicate to the test conductor if at any time during the fit test the taste of Bitrex is detected. If the test subject does not report tasting the Bitrex, the test is passed.
 - (11) If the taste of Bitrex is detected, the fit is deemed unsatisfactory and the test is failed. A different respirator shall be tried and the entire test procedure is repeated (taste threshold screening and fit testing).

Appendix B-1 to § 1910.134: User Seal Check Procedures (Mandatory)

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 in this appendix, or the respirator manufacturer's recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit tests.

I. Facepiece Positive and/or Negative Pressure Checks

A. *Positive pressure check.* Close off the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece 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 facepiece collapses slightly, and hold the 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 facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

II. Manufacturer's Recommended User Seal Check Procedures

The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer's procedures are equally effective.

[63 FR 1152, Jan. 8, 1998]

Appendix B-2 to § 1910.134: Respirator Cleaning Procedures (Mandatory)

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.

I. Procedures for Cleaning Respirators

A. Remove filters, cartridges, or canisters. Disassemble facepieces 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 °C [110 °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 °C [110 °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:

1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 °C (110 °F); or,
2. 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 °C (110 °F); or,
3. 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 °C [110 °F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces 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 facepiece, replacing filters, cartridges, and canisters where necessary.

H. Test the respirator to ensure that all components work properly.

[63 FR 1152, Jan. 8, 1998]

Appendix C to § 1910.134: OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

Employer: Answers to questions in Section 1, and to question 9 in Section 2 of part A, do not require a medical examination.

To the employee: Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date:	2. Your job title:
3. Your name:	4. Your age (to nearest year):
5. Sex (check one): <input type="checkbox"/> Male: <input type="checkbox"/> Female	6. Your height:
6. Your weight: lbs.	7. Phone number:
8. The best time you can be reached by the health care professional who reviews this questionnaire:	
9. Has your employer told you how to contact the health care professional who will review this questionnaire (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No	
10. Check the type of respirator you will use (you can check more than one category): <input type="checkbox"/> N, R, or P disposable respirator (filter-mask, non-cartridge type only). <input type="checkbox"/> Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).	
11. Have you worn a respirator? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes," what type(s):	
Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (Please check one) <input type="checkbox"/> Yes <input type="checkbox"/> No	
1. Do you <i>currently</i> smoke tobacco, or have you smoked tobacco in the last month: <input type="checkbox"/> Yes <input type="checkbox"/> No	
2. Have you <i>ever had</i> any of the following conditions? Seizures: <input type="checkbox"/> Yes <input type="checkbox"/> No Diabetes (sugar disease): <input type="checkbox"/> Yes <input type="checkbox"/> No Allergic reactions that interfere with your breathing: <input type="checkbox"/> Yes <input type="checkbox"/> No Claustrophobia (fear of closed-in places): <input type="checkbox"/> Yes <input type="checkbox"/> No Trouble smelling odors: <input type="checkbox"/> Yes <input type="checkbox"/> No	
3. Have you <i>ever had</i> any of the following pulmonary or lung problems? Asbestosis: <input type="checkbox"/> Yes <input type="checkbox"/> No Asthma: <input type="checkbox"/> Yes <input type="checkbox"/> No Chronic bronchitis: <input type="checkbox"/> Yes <input type="checkbox"/> No Emphysema: <input type="checkbox"/> Yes <input type="checkbox"/> No Pneumonia: <input type="checkbox"/> Yes <input type="checkbox"/> No Tuberculosis: <input type="checkbox"/> Yes <input type="checkbox"/> No Silicosis: <input type="checkbox"/> Yes <input type="checkbox"/> No Pneumothorax (collapsed lung): <input type="checkbox"/> Yes <input type="checkbox"/> No Lung cancer: <input type="checkbox"/> Yes <input type="checkbox"/> No Broken ribs: <input type="checkbox"/> Yes <input type="checkbox"/> No Any chest injuries or surgeries: <input type="checkbox"/> Yes <input type="checkbox"/> No Any other lung problem that you've been told about: <input type="checkbox"/> Yes <input type="checkbox"/> No	
4. Do you <i>currently</i> have any of the following symptoms of pulmonary or lung illness? Shortness of breath: <input type="checkbox"/> Yes <input type="checkbox"/> No Wheezing: <input type="checkbox"/> Yes <input type="checkbox"/> No Wheezing that interferes with your job: <input type="checkbox"/> Yes <input type="checkbox"/> No Shortness of breath when walking fast on level ground or walking up a slight hill or incline: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Shortness of breath when walking with other people at an ordinary pace on level ground: <input type="checkbox"/> Yes <input type="checkbox"/> No
Have to stop for breath when walking at your own pace on level ground: <input type="checkbox"/> Yes <input type="checkbox"/> No
Shortness of breath when washing or dressing yourself: <input type="checkbox"/> Yes <input type="checkbox"/> No
Shortness of breath that interferes with your job: <input type="checkbox"/> Yes <input type="checkbox"/> No
Coughing that produces phlegm (thick sputum): <input type="checkbox"/> Yes <input type="checkbox"/> No
Coughing that wakes you early in the morning: <input type="checkbox"/> Yes <input type="checkbox"/> No
Coughing that occurs mostly when you are lying down: <input type="checkbox"/> Yes <input type="checkbox"/> No
Coughing up blood in the last month: <input type="checkbox"/> Yes <input type="checkbox"/> No
Chest pain when you breathe deeply: <input type="checkbox"/> Yes <input type="checkbox"/> No
Any other symptoms that you think may be related to lung problems: <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Have you <i>ever had</i> any of the following cardiovascular or heart problems?
Heart attack: <input type="checkbox"/> Yes <input type="checkbox"/> No Stroke: <input type="checkbox"/> Yes <input type="checkbox"/> No Angina: <input type="checkbox"/> Yes <input type="checkbox"/> No
Heart failure: <input type="checkbox"/> Yes <input type="checkbox"/> No Swelling in your legs or feet (not caused by walking): <input type="checkbox"/> Yes <input type="checkbox"/> No
Heart arrhythmia (heart beating irregularly): <input type="checkbox"/> Yes <input type="checkbox"/> No High blood pressure: <input type="checkbox"/> Yes <input type="checkbox"/> No
Any other heart problem that you've been told about: <input type="checkbox"/> Yes <input type="checkbox"/> No
6. Have you <i>ever had</i> any of the following cardiovascular or heart symptoms?
Frequent pain or tightness in your chest: <input type="checkbox"/> Yes <input type="checkbox"/> No
Pain or tightness in your chest during physical activity: <input type="checkbox"/> Yes <input type="checkbox"/> No
Pain or tightness in your chest that interferes with your job: <input type="checkbox"/> Yes <input type="checkbox"/> No
In the past two years, have you noticed your heart skipping or missing a beat: <input type="checkbox"/> Yes <input type="checkbox"/> No
Heartburn or indigestion that is not related to eating: <input type="checkbox"/> Yes <input type="checkbox"/> No
Any other symptoms you think may be related to heart or circulation problems: <input type="checkbox"/> Yes <input type="checkbox"/> No
7. Do you <i>currently</i> take medication for any of the following problems?
Breathing or lung problems: <input type="checkbox"/> Yes <input type="checkbox"/> No Heart trouble: <input type="checkbox"/> Yes <input type="checkbox"/> No
Blood pressure: <input type="checkbox"/> Yes <input type="checkbox"/> No Seizures: <input type="checkbox"/> Yes <input type="checkbox"/> No
8. If you've used a respirator, have you <i>ever had</i> any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)
Eye irritation: <input type="checkbox"/> Yes <input type="checkbox"/> No Skin allergies or rashes: <input type="checkbox"/> Yes <input type="checkbox"/> No Anxiety: <input type="checkbox"/> Yes <input type="checkbox"/> No
General weakness or fatigue: <input type="checkbox"/> Yes <input type="checkbox"/> No
Any other problem that interferes with your use of a respirator: <input type="checkbox"/> Yes <input type="checkbox"/> No
9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: <input type="checkbox"/> Yes <input type="checkbox"/> No
Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.
10. Have you <i>ever lost</i> vision in either eye (temporarily or permanently): <input type="checkbox"/> Yes <input type="checkbox"/> No
11. Do you <i>currently</i> have any of the following vision problems?
Wear contact lenses: <input type="checkbox"/> Yes <input type="checkbox"/> No Wear glasses: <input type="checkbox"/> Yes <input type="checkbox"/> No
Color blind: <input type="checkbox"/> Yes <input type="checkbox"/> No Any other eye or vision problem: <input type="checkbox"/> Yes <input type="checkbox"/> No
12. Have you <i>ever had</i> an injury to your ears, including a broken ear drum: <input type="checkbox"/> Yes <input type="checkbox"/> No
13. Do you <i>currently</i> have any of the following hearing problems?
Difficulty hearing: <input type="checkbox"/> Yes <input type="checkbox"/> No Wear a hearing aid: <input type="checkbox"/> Yes <input type="checkbox"/> No
Any other hearing or ear problem: <input type="checkbox"/> Yes <input type="checkbox"/> No

14. Have you <i>ever had</i> a back injury: <input type="checkbox"/> Yes <input type="checkbox"/> No
15. Do you <i>currently</i> have any of the following musculoskeletal problems? Weakness in any of your arms, hands, legs, or feet: <input type="checkbox"/> Yes <input type="checkbox"/> No Back pain: <input type="checkbox"/> Yes <input type="checkbox"/> No Difficulty fully moving your arms and legs: <input type="checkbox"/> Yes <input type="checkbox"/> No Pain or stiffness when you lean forward or backward at the waist: <input type="checkbox"/> Yes <input type="checkbox"/> No Difficulty fully moving your head up or down: <input type="checkbox"/> Yes <input type="checkbox"/> No Difficulty fully moving your head side to side: <input type="checkbox"/> Yes <input type="checkbox"/> No
Difficulty bending at your knees: <input type="checkbox"/> Yes <input type="checkbox"/> No Difficulty squatting to the ground: <input type="checkbox"/> Yes <input type="checkbox"/> No Climbing a flight of stairs or a ladder carrying more than 25 lbs? <input type="checkbox"/> Yes <input type="checkbox"/> No Any other muscle or skeletal problem that interferes with using a respirator: <input type="checkbox"/> Yes <input type="checkbox"/> No
Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.
1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen: <input type="checkbox"/> Yes <input type="checkbox"/> No
If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions: <input type="checkbox"/> Yes <input type="checkbox"/> No
2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: <input type="checkbox"/> Yes <input type="checkbox"/> No
If "yes," name the chemicals if you know them: _____
3. Have you ever worked with any of the materials, or under any of the conditions, listed below: Asbestos: <input type="checkbox"/> Yes <input type="checkbox"/> No Dusty environments: <input type="checkbox"/> Yes <input type="checkbox"/> No Aluminum: <input type="checkbox"/> Yes <input type="checkbox"/> No Iron: <input type="checkbox"/> Yes <input type="checkbox"/> No Beryllium: <input type="checkbox"/> Yes <input type="checkbox"/> No Tin: <input type="checkbox"/> Yes <input type="checkbox"/> No Coal (for example, mining): <input type="checkbox"/> Yes <input type="checkbox"/> No Silica (e.g., in sandblasting): <input type="checkbox"/> Yes <input type="checkbox"/> No Any other hazardous exposures: <input type="checkbox"/> Yes <input type="checkbox"/> No Tungsten/cobalt (e.g., grinding or welding this material): <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes," describe these exposures:
4. List any second jobs or side businesses you have:
5. List your previous occupations:
6. List your current and previous hobbies:
7. Have you been in the military services? <input type="checkbox"/> Yes <input type="checkbox"/> No
If "yes," were you exposed to biological or chemical agents (either in training or combat): <input type="checkbox"/> Yes <input type="checkbox"/> No
8. Have you ever worked on a HAZMAT team? <input type="checkbox"/> Yes <input type="checkbox"/> No
9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications): <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes," name the medications if you know them:
10. Will you be using any of the following items with your respirator(s)? HEPA Filters: <input type="checkbox"/> Yes <input type="checkbox"/> No Canisters (for example, gas masks): <input type="checkbox"/> Yes <input type="checkbox"/> No Cartridges: <input type="checkbox"/> Yes <input type="checkbox"/> No

11. How often are you expected to use the respirator(s) (Check "yes" or "no" for all answers that apply?):	
Escape only (no rescue): <input type="checkbox"/> Yes <input type="checkbox"/> No	Emergency rescue only: <input type="checkbox"/> Yes <input type="checkbox"/> No
Less than 5 hours per week: <input type="checkbox"/> Yes <input type="checkbox"/> No	Less than 2 hours per day: <input type="checkbox"/> Yes <input type="checkbox"/> No
2 to 4 hours per day: <input type="checkbox"/> Yes <input type="checkbox"/> No	Over 4 hours per day: <input type="checkbox"/> Yes <input type="checkbox"/> No
12. During the period you are using the respirator(s), is your work effort:	
Light (less than 200 kcal per hour): <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes," how long does this period last during the average shift: ___ hrs. ___ mins.	
Examples of a light work effort are <i>sitting</i> while writing, typing, drafting, or performing light assembly work; or <i>standing</i> while operating a drill press (1-3 lbs.) or controlling machines.	
Moderate (200 to 350 kcal per hour): <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes," how long does this period last during the average shift: ___ hrs. ___ mins.	
Examples of moderate work effort are <i>sitting</i> while nailing or filing; <i>driving</i> a truck or bus in urban traffic; <i>standing</i> while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; <i>walking</i> on a level surface about 2 mph or down a 5-degree grade about 3 mph; or <i>pushing</i> a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.	
Heavy (above 350 kcal per hour): <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes," how long does this period last during the average shift: ___ hrs. ___ mins.	
Examples of heavy work are <i>lifting</i> a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; <i>shoveling</i> ; <i>standing</i> while bricklaying or chipping castings; <i>walking</i> up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).	
13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator: <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes," describe this protective clothing and/or equipment:	
14. Will you be working under hot conditions (temperature exceeding 77 °F): <input type="checkbox"/> Yes <input type="checkbox"/> No	
15. Will you be working under humid conditions: <input type="checkbox"/> Yes <input type="checkbox"/> No	
16. Describe the work you'll be doing while you're using your respirator(s):	
17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):	
18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):	
Name of the first toxic substance:	
Estimated maximum exposure level per shift:	
Duration of exposure per shift:	
Name of the second toxic substance:	
Estimated maximum exposure level per shift:	
Duration of exposure per shift:	
Name of the third toxic substance:	
Estimated maximum exposure level per shift:	
Duration of exposure per shift:	
The name of any other toxic substances that you'll be exposed to while using your respirator:	
19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):	

[63 FR 1152, Jan. 8, 1998; 63 FR 20098, April 23, 1998; 76 FR 33607, June 8, 2011; 77 FR 46949, Aug. 7, 2012]

Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

- Part Number: 1910
- Part Title: Occupational Safety and Health Standards
- Subpart: I
- Subpart Title: Personal Protective Equipment
- Standard Number: 1910.134 App 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, 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 respirator's 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.

[63 FR 1152, Jan. 8, 1998; 63 FR 20098, April 23, 1998]

Print Name: _____

Signature: _____

Date: _____

ATTACHMENT A

COUNTY OF SULLIVAN DPW RESPIRATORY USAGE CHART			
Respiratory protection is required for and has been issued to the following personnel:			
Job Title/Description/ Work Procedure	Location	Type of Respirator	Hazard (chart pg 21)
<u>Airport Attendant</u> – Miscellaneous building maintenance including but not limited to; brazing, torching, grinding, painting, and Crash-Fire-Rescue (ARFF Team).	Cty Rt 183A, White Lake NY	MSA Comfo Classic	1,2,3,4,5
<u>Assistant Sign Installer</u> – Assists in painting bridges, buildings, installing guiderail, cutting, torching.	450 St Rte 55 Barryville, NY	MSA Comfo Classic	1,2,3,4,5
<u>Automotive Body Repairer</u> – Applying rust inhibitor and undercoating, welding; painting vehicles and sand blasting.	450 St Rte 55 Barryville	3M	1,2,3,4,5
<u>Automotive Mechanic</u> - May operate electric or acetylene welding and cutting equipment	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Bridge Carpenter</u> – Cutting concrete or blacktop with demo saw, painting, hand mixing concrete and grout, cutting with grinder or using acetylene torch.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Bridge Maintainer I</u> - Preparing surfaces for paint by use of sandblasting equipment, chiseling and chipping hammers, mixing and applying appropriate paint to bridge surfaces with blacktop brushes or spray gun, cutting concrete or with demo saw, hand mixing concrete or grout, cutting with grinder or acetylene torch.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Bridge Maintainer II</u> - Prepares surfaces for paint by use of sandblasting equipment, chisels and chipping hammers, mixes and applies appropriate paint to bridge surfaces with brushes or spray gun, cutting concrete or blacktop with demo saw; painting, hand mixing concrete or grout and cutting with grinder or acetylene torch.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Building Maintenance Mechanic</u> – Torching, braising, grinder, painting, operating chisel hammer, hammer drill, jackhammer, cutting pressure treated wood.	20 Community Ln, Liberty NY 745 St Rte 17B Monticello, NY 91 Landfill Dr, Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Carpenter</u> - Operates all woodworking machineries such as planers, sanders, mortises, routers, and all types of power saws, painting,			1,2,3,4,5,6

plumbing, masonry or electrical repairs, cutting concrete or blacktop with demo saw; painting, hand mixing concrete or grout, cutting with grinder or acetylene torch.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	
<u>Construction Equipment Operator I</u> - Building and maintaining bridges, installing pipe and guiderails, operates brush chippers, compressors and other power equipment, cutting concrete or blacktop with demo saw.	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY 8764 Rt 97, Callicoon, NY 143 Main St, Liv Manor, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Construction Equipment Op II</u> - Building and maintaining bridges, installing pipe and guiderails, operates brush chippers, compressors and other power equipment, cutting concrete or blacktop with demo saw, painting, hand mixing concrete or grout, cutting with grinder or acetylene torch.	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY 8764 Rt 97, Callicoon, NY 143 Main St, Liv Manor, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Construction Equipment Operator III</u> - Building and maintaining bridges, installing pipe and guiderails, operates brush chippers, compressors and other power equipment, operate electric or acetylene welding and cutting equipment.	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY 8764 Rt 97, Callicoon, NY 143 Main St, Liv Manor, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Electrician</u> - Installs, repairs and maintains electrical lighting, ventilation and heating system; operate electric or acetylene welding and cutting equipment; torching, braising, grinder, painting, operating chisel hammer, hammer drill, jackhammer, cutting pressure treated wood.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Equipment Painter</u> - Spray paints highway motor vehicles and equipment, prepares surfaces for painting by applying paint remover, washing, sandblasting, sanding, scraping, taping, undercoats and applies rust prohibitor.	450 St Rte 55 Barryville	3MP 100	1,2,3,4,5,6
<u>Grounds Maintenance Worker I</u> - Works with paints, stains and various cleaning chemicals. Applies herbicides, pesticides, fertilizer and lime.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Hydraulic Excavation Equip Operator</u> - Assists in such tasks as building and maintaining bridges, installing pipe and guiderails, operates brush chippers, compressors and other power equipment; operates electric or acetylene welding and cutting equipment.	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY 8764 Rt 97, Callicoon, NY 143 Main St, Liv Manor, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Grounds Maintenance Worker II</u> - Works with paints, stains and various cleaning chemicals. Applies herbicides, pesticides, fertilizer and lime.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Laborer I</u> - Assists in the installation and maintenance of traffic signs and markings, and in			1,2,3,4,5,6

bridge construction maintenance; painting signs, bridges or other structures and facilities, cutting concrete or blacktop with demo saw; hand mixing concrete or grout, cutting with grinder or acetylene torch	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY 8764 Rt 97, Callicoon, NY 143 Main St, Liv Manor, NY 91 Landfill Dr, Monticello, NY	MSA Comfo Classic	
<u>Laborer II</u> - Cuts out bad spots in roads and fills with hot or cold patch, installs and repairs guide rails, assists in construction, maintenance and repair of buildings and bridges; cuts concrete or blacktop with demo saw, hand mixing concrete or grout; cuts with grinder or acetylene torch	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY 8764 Rt 97, Callicoon, NY 143 Main St, Liv Manor, NY 91 Landfill Dr, Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Maintenance Assistant</u> - Assists in cleaning and repairing boilers; Assists in the installation and repair of general plumbing equipment; – Torching, braising, grinder, painting, operating chisel hammer, hammer drill, jackhammer, cutting pressure treated wood, cutting concrete or blacktop with demo saw; hand mixing concrete or grout; cutting with grinder or acetylene torch.	450 St Rte 55 Barryville 20 Community Ln, Liberty NY 745 St Rte 17B Monticello, NY 91 Landfill Dr, Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Master Mechanic</u> - Operates acetylene cutting and welding equipment, welds chains, belt links and structural steel.	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5
<u>Motor Equipment Operator</u> - May operate an air compressor in the breaking of pavement (Jack hammering), crack sealers, paver, cutting concrete or blacktop with demo saw; paint; hand mixing concrete or grout, cutting with grinder and/or acetylene torch	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY 8764 Rt 97, Callicoon, NY 143 Main St, Liv Manor, NY	MSA Comfo Classic	1,2,3,4,5,6
<u>Senior Master Mechanic</u> - Welds electrically and with acetylene equipment; grinds valves; operates lathe, drill press, planer, shaper, and other machine shop equipment.	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5
<u>Sign Fabricator</u> - Mixes and uses sign paint for hand painted signs; painting of county bridges when needed, operates electric or acetylene welding and cutting equipment.	450 St Rte 55 Barryville 745 St Rte 17B Monticello, NY	3MP 100	1,2,3,4,5
<u>Sign Installer</u> - Installs guard rails and barricades, paints signs and buildings, operates electric or acetylene welding and cutting equipment.	450 St Rte 55 Barryville	3MP 100	1,2,3,4,5
<u>Weather Observer</u> – Conducts miscellaneous building maintenance (including but not limited to brazing, torching, grinding, painting, etc.) and Crash-Fire-Rescue (ARFF Team).	Cty Rt 183A, White Lake NY	Scott SCBA	1,2,3,4,5,6
<u>Welder I</u> - Welds and repairs automotive frames, body parts, sheet metal, broken castings, ice and			1,2,3,4,5,6

snow removal equipment, construction, road maintenance and solid waste equipment; facilities structures and equipment work platforms, fuel tanks, performs sandblasting, welds and repairs railings and bridges.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	
Welder II - Welds and repairs automotive frames, body parts, sheet metal, broken castings, ice and snow removal equipment, construction, road maintenance and solid waste equipment; facilities structures and equipment work platforms, fuel tanks, performs sandblasting, welds and repairs railings and bridges.	745 St Rte 17B Monticello, NY	MSA Comfo Classic	1,2,3,4,5,6
COUNTY OF SULLIVAN PUBLIC SAFETY RESPIRATORY USAGE CHART			
Respiratory protection is required for and has been issued to the following personnel:			
Job Title/Description/ Work Procedure	Location	Type of Respirator	Hazard
Commissioner of Public Safety -responds to releases or potential release regarding infectious control, hazardous material or fire/explosion for the purpose of stopping the release.	Varies by situation; Sullivan and surrounding Counties	Scott 4.5 3M 1/2 Mask 7500	1,2,3,4,5,6
Deputy Commissioner of Public Safety responds to releases or potential release regarding infectious control, hazardous material or fire/explosion for the purpose of stopping the release.	Varies by situation; Sullivan and surrounding Counties	Scott 4.5 3M 1/2 Mask 7500	1,2,3,4,5,6
Deputy Commissioner of Public Safety/Emergency Management	Varies by situation; Sullivan and surrounding Counties	Scott 4.5 3M 1/2 Mask 7500	1,2,3,4,5,6
Deputy Fire Coordinator –(Hazardous) respond to releases or potential releases of hazardous materials for the purpose of stopping the release.	Varies by situation; Sullivan and surrounding Counties	Scott 4.5 3M 1/2 Mask 7500	1,2,3,4,5,6
Emergency Services Training Center Coordinator - responds to releases or potential release regarding infectious control, hazardous material or fire/explosion for the purpose of stopping the release.	Varies by situation; Sullivan and surrounding Counties	Scott 4.5 3M 1/2 Mask 7500	1,2,3,4,5,6
Fire Investigators -analyze and investigate the fire scene with the goal of determining the origin and cause of the fire/explosion, taking proper care to avoid any spoliation of potential evidence.	Varies by situation; Sullivan and surrounding Counties	Scott 4.5 3M 1/2 Mask 7500	1,2,3,4,5,6
Fire Instructors - assist in training firefighters with live fire evolutions both structural and vehicle.	Varies by situation; Sullivan and surrounding Counties	Scott 4.5 3M 1/2 Mask 7500	1,2,3,4,5,6

HAZARD REFERENCE CHART

- 1. Dust: Silica Dust (from cutting concrete/stone), wood dust, grain dust, asbestos and cement dust.**
- 2. Fumes: Metal fumes from welding, smelting, soldering and rubber.**
- 3. Vapors & Gases: Solvent vapors from paints/ strippers, carbon monoxide, chlorine, anhydrous ammonia and pesticides.**
- 4. Mists & Spray: Cleaning products, oils and agricultural sprays.**
- 5. Biological Agents: Mold spores, bacteria and fungi. Oxygen Deficiency: Confined space with low oxygen levels.**
- 6. Oxygen Deficiency: Confined space with low oxygen levels.**

RESPIRATOR SELECTION JUSTIFICATION TABLE

DEPARTMENT OF TRANSPORTATION – HIGHWAY & CONSTRUCTION OPERATIONS 29 CFR 1910.134(D)(1)(III)

Area / Project	Task / Operation	Contaminant(s)	Exposure Level (Measured or Estimated)	Data Source	OSHA PEL / OEL	Selected Respirator Type	Filter / Cartridge	APF (Appendix A)	Selection Justification
Highway Construction	Asphalt paving, milling	Asphalt fumes, respirable dust	Estimated at or near PEL during active operations	Industry studies, historical DOT sampling	OSHA PELs	Half-mask APR	P100	10	Objective data indicates potential exposure to asphalt fumes and respirable dust during paving and milling. Based on anticipated exposure levels and an APF of 10, the selected respirator provides adequate protection below applicable limits.
Highway Construction	Concrete cutting, saw cutting	Respirable crystalline silica	Potentially above OSHA PEL without controls	Industry studies, OSHA silica data	50 µg/m ³	Half-mask APR	P100	10	Industry and historical data show silica exposure during concrete cutting. Based on estimated exposure and an APF of 10, the selected respirator reduces exposure below the OSHA PEL when used with engineering controls.
Bridge Maintenance	Surface prep, grinding	Respirable dust, lead (where applicable)	Potentially above action level	Historical sampling, SDS	OSHA PELs	Full-face APR	P100	50	Historical sampling indicates elevated dust and possible lead exposure during surface preparation. A full-face respirator with APF 50 was selected to maintain exposure below OSHA limits.
Bridge Construction	Welding and cutting	Welding fumes (iron oxide, manganese)	Intermittent exposures near PEL	Industry data, manufacturer data	OSHA PELs	Half-mask APR	P100	10	Objective data indicates welding fume generation during bridge work. Based on anticipated exposure and an

Area / Project	Task / Operation	Contaminant(s)	Exposure Level (Measured or Estimated)	Data Source	OSHA PEL / OEL	Selected Respirator Type	Filter / Cartridge	APF (Appendix A)	Selection Justification
Roadway Maintenance	Striping, painting	Organic vapors	Short-term exposure during application	Manufacturer SDS, industry data	OSHA PELs	Half-mask APR	OV cartridges	10	APF of 10, the selected respirator provides adequate protection. SDS data identifies organic vapor exposure during striping operations. Based on estimated exposure and APF of 10, the selected respirator adequately controls exposure.
Equipment Operations	Diesel-powered equipment	Diesel particulate matter	Low to moderate intermittent exposure	Industry studies	OSHA guidance	Disposable N95 or Half-mask APR	N95 or P100	10	Objective data indicates diesel particulate exposure during equipment operation. A respirator with APF 10 was selected to reduce exposure below applicable limits.
General Maintenance	Sweeping, debris removal	Nuisance dust	Below PEL but visible dust present	Observational data	OSHA PNOR	Disposable N95	N95	10	Visible airborne dust is present during cleanup activities. An N95 respirator with APF 10 was selected as a precautionary measure.

EXPOSURE MONITORING SUMMARIES, ASSIGNED PROTECTION FACTORS AND SELECTION LOGIC. (PUBLIC SAFETY)

Fire Response / Firefighting Activities

Area / Activity: Fire Response (Interior and Exterior)

Contaminants Identified:

- Products of combustion including carbon monoxide (CO), hydrogen cyanide (HCN), particulate matter, aldehydes, and other unidentified combustion byproducts

Exposure Level Determination:

- Air monitoring is not feasible due to immediately dangerous to life or health (IDLH) conditions and rapidly changing fire environments.
- Exposure levels are assumed to exceed OSHA PELs based on recognized fireground hazards and industry data (NFPA, NIOSH).

Exposure Classification:

- IDLH atmosphere

Selected Respirator:

- Self-Contained Breathing Apparatus (SCBA), pressure-demand mode

Assigned Protection Factor (APF):

- APF 10,000 (per 29 CFR 1910.134 Appendix A – Table 1)

Selection Logic / Justification:

Firefighting environments contain unknown and potentially IDLH concentrations of toxic combustion products. Due to the inability to quantify airborne contaminant concentrations and the potential for oxygen-deficient atmospheres, a pressure-demand SCBA with an APF of 10,000 was selected to ensure maximum respiratory protection in accordance with 29 CFR 1910.134.

Hazardous Materials (HazMat) Response

Area / Activity: Hazardous Materials Response and Spill Control

Contaminants Identified:

- Chemical vapors, gases, aerosols, and particulates dependent on incident material (e.g., chlorine, ammonia, solvents, corrosives)

Exposure Level Determination:

- Exposure levels vary by incident and are assumed to be unknown or potentially IDLH until monitoring confirms otherwise.
- Objective data including SDS information, manufacturer data, and emergency response guides (e.g., ERG) are used to estimate potential exposure.

Exposure Classification:

- Unknown or potentially IDLH atmosphere

Selected Respirator:

- Self-Contained Breathing Apparatus (SCBA), pressure-demand mode
or
- Supplied-Air Respirator (SAR) with escape bottle where appropriate

Assigned Protection Factor (APF):

- SCBA (pressure demand): APF 10,000
- SAR (pressure demand): APF 1,000
(per 29 CFR 1910.134 Appendix A – Table 1)

Selection Logic / Justification:

During hazardous materials incidents, airborne contaminant concentrations are unknown and may exceed occupational exposure limits or be immediately dangerous to life or health. Based on SDS information and industry guidance, a pressure-demand SCBA (or SAR with escape capability) was selected to provide adequate protection until air monitoring confirms safe condition

Fire-Related Exposure (Overhaul, Investigation, Training)

Area / Activity: Overhaul, Fire Investigation, Post-Fire Cleanup, Live-Fire Training

Contaminants Identified:

- Residual combustion products including soot, ash, carbon monoxide, polycyclic aromatic hydrocar (PAHs), and particulate matter

Exposure Level Determination:

- Limited real-time monitoring may be conducted; however, exposures are estimated using historical fireground sampling data and NIOSH studies indicating post-fire contaminant persistence.

Estimated Exposure:

- Contaminant concentrations may exceed OSHA PELs during overhaul and disturbance of debris.

Selected Respirator:

- Full-face air-purifying respirator with P100 filters
(or combination cartridges where gases/vapors may be present)

Assigned Protection Factor (APF):

- Full-face APR: APF 50
(per 29 CFR 1910.134 Appendix A – Table 1)

Selection Logic / Justification:

Objective data and industry studies indicate that post-fire environments may contain airborne particulate and toxic combustion byproducts above permissible exposure limits. A full-face air-purifying respirator with an APF of 50 was selected to reduce exposure below applicable occupational exposure limits during overhaul and post-fire activities.

Respirator Selection Matrix OSHA 29 CFR 1910.134(d)(1)(iii)

Area / Activity	Contaminants	Exposure Determination	Atmosphere Classification	Selected Respirator	APF	Selection Logic / Justification
Fire Response / Firefighting (Interior & Exterior)	Products of combustion (CO, HCN, particulates, aldehydes, unknown byproducts)	Air monitoring not feasible due to rapidly changing conditions; exposure assumed based on industry data (NFPA/NIOSH)	IDLH / Oxygen-deficient	SCBA, pressure-demand	10,000	Fire environments contain unknown and potentially IDLH concentrations of toxic gases and particulates. A pressure-demand SCBA was selected to provide maximum respiratory protection in accordance with 29 CFR 1910.134.
Hazardous Materials Response	Chemical vapors, gases, aerosols, particulates (incident-specific)	Exposure estimated using SDS, manufacturer data, ERG, and objective data; monitoring may not be immediately available	Unknown / Potentially IDLH	SCBA (pressure-demand) or SAR with escape	10,000 (SCBA) / 1,000 (SAR)	Contaminant concentrations are unknown and may exceed exposure limits. Pressure-demand supplied-air respirators were selected to ensure protection until air monitoring confirms safe conditions.
Fire Overhaul / Investigation	Residual combustion products (soot,	Limited monitoring and historical fireground	Non-IDLH (with potential	Full-face APR with P100 or	50	Objective data indicates post-fire contaminants may

Area / Activity	Contaminants	Exposure Determination	Atmosphere Classification	Selected Respirator	APF	Selection Logic / Justification
/ Post-Fire Cleanup	ash, CO, PAHs, particulates)	sampling data used to estimate exposure	exceedance of PELs)	combination cartridges		exceed OSHA PELs. A full-face APR with an APF of 50 was selected to reduce exposure below applicable limits. Live-fire training environments create IDLH conditions. SCBA use ensures respiratory protection throughout the evolution.
Live-Fire Training	Products of combustion, particulates, CO	Exposure assumed based on training evolution and industry studies	IDLH during active burn	SCBA, pressure-demand	10,000	Tasks occur outside IDLH zones but may involve particulate exposure. APR selected to maintain exposure below OSHA limits.
Fire-Related Support Activities (outside hot zone)	Intermittent smoke, nuisance particulates	Exposure based on task duration and proximity; objective data	Below IDLH	Half-mask APR with P100	10	

ATTACHMENT B

Sample Record of Respirator Use

Required and <u>Voluntary</u> Respirator Use at County of Sullivan	
Type of Respirator	Department/Process
Filtering face piece (dust mask)	Voluntary use for Maintenance workers

