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Administrative Policy

Title: Safety Policy- Respiratory Protection Program			
Administered By: Human Resources – Safety Division			
Issue Date	Revision Date	Department Head Approved	City Manager Approved
03/10/2011	11/10/2025	<small>Signed by:</small> <i>Lori Sassoon</i> <small>F6039B40F6F94B8...</small>	<small>Docusigned by:</small> <i>Jacob Ellis</i> <small>8CB6AE0895944B4...</small>

ARTICLE I – PURPOSE

Section 1.1 General Purpose

The purpose of this policy is to establish and maintain a Respiratory Protection Program (RPP) to protect the City of Corona employees from respiratory health hazards and injuries. The primary objective of this program is to help reduce employee exposure to occupational air contaminants including harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors and oxygen deficiency, as far as feasible by accepted engineering and work practice control measures. When effective engineering controls are not feasible, or while they are being implemented or evaluated, respiratory protection may be required to achieve this goal.

Section 1.2 Superseded Policies

This policy supersedes and replaces the following policies, which are hereby eliminated in their entirety and are of no further force and effect:

Policy Number: 01600.003 – Respiratory Protection Program Policy

Issue Date: 10-15-2015

Last Revised: 06-25-2018

ARTICLE II - DEFINITIONS AND SCOPE

Section 2.1 Definitions

- A. AIR-PURIFYING RESPIRATOR means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the purifying element.
- B. ATMOSPHERE-SUPPLYING RESPIRATOR means a respirator that supplies the user with breathing air from a source independent of the ambient atmosphere and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.
- C. CANISTER OR CARTRIDGE means a container with a filter, filtering absorbent, or catalyst, or a combination of these items, which removes specific contamination from the air passed through the container.
- D. EMPLOYEE EXPOSURE means an exposure to a concentration of a hazardous airborne contaminant that would occur if the employee were not using respirator protection.
- E. END-OF-SERVICE-LIFE INDICATOR (ESLI) means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the filtering absorbent is approaching saturation or is no longer effective.
- F. FILTERING FACE PIECE (dust mask) means a negative pressure particulate respirator with a filter as an integral part of the face piece or with the entire face piece composed of the filtering medium.
- G. FIT FACTOR means a quantitative estimate of the fit of a particular respirator to a specific individual and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.
- H. FIT TEST means the use of a protocol to evaluate the fit of a respirator qualitatively or quantitatively on an individual (See also Qualitative fit test [QLFT] and Quantitative fit test [QNFT].)
- I. HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTER means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100.
- J. IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH) means an atmosphere that poses an immediate threat to life, would cause irreversible

adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

- K. **NEGATIVE PRESSURE RESPIRATOR** means a respirator in which the air pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.
- L. **OXYGEN DEFICIENT ATMOSPHERE** means an atmosphere with oxygen content below 19.5% by volume.
- M. **PHYSICIAN OR OTHER LICENSED HEALTH CARE PROFESSIONAL (PLHCP)** means an individual whose legally permitted scope or practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required.
- N. **POSITIVE PRESSURE RESPIRATOR** means a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.
- O. **PRESSURE DEMAND RESPIRATOR** means a positive pressure atmosphere-supplying respirator that admits breathing air to the face piece when the positive pressure is reduced inside the face piece by inhalation.
- P. **QUALITATIVE FIT TEST (QLFT)** means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.
- Q. **QUANTITATIVE FIT TEST (QNFT)** means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.
- R. **RESPIRATOR INLET COVERING** means a portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both.
- S. **SELF-CONTAINED BREATHING APPARATUS (SCBA)** means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.
- T. **SUPPLIED-AIR RESPIRATOR (SAR)** means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user. Also known as an "airline respirator".
- U. **USER SEAL CHECK** means an action conducted by the respirator user to determine if the respirator is properly sealed to the face.

Section 2.2 General Scope

This policy applies to all employees who are required to wear a respirator in performing their specific job functions or using respirators voluntarily with the City's authorization. This program does not apply to contractors. However, contractors performing work at City facilities that require the use of respiratory protection must have their own RPP. It is the responsibility of all supervisors to ensure this policy is enforced for employees under their supervision.

Section 2.3 Exemptions from Scope

NONE

Section 2.4 Authority

The City of Corona is required to have a written RPP per Title 29 Code of Federal Regulations, Section 1910.134 Respiratory Protection, Title 8 California Code of Regulations, Section 5144, Respiratory Protection, Hazard Communication Program, Title 8 California Code of Regulations, Section 1531, Subchapter 4, Construction Safety Orders.

ARTICLE III – PROGRAM RESPONSIBILITIES

Section 3.1 Responsibilities

A. Program Administrator

The Human Resources Department, Occupational Health & Safety (OH&S) Manager or designee will act as Program Administrator for the RPP, and is responsible for:

1. Periodically reviewing the RPP and amending as necessary.
2. Coordinating employee training.
3. Coordinating medical evaluations and questionnaires.
4. Coordinating and/or conducting respirator fit testing.
5. Evaluating controls of respiratory hazards.
6. Program record keeping.

B. Managers and Supervisors

Managers and supervisors are responsible for:

1. Identifying respiratory hazards that require the use of respiratory protective equipment, in collaboration with the OH&S staff.
2. Providing proper respiratory protective equipment to meet the needs of each specific application.
3. Ensuring unused respirator cartridges are discarded in accordance with the Section 6.9 Cartridge Change-Out Schedule.
4. Ensuring respirators are properly cleaned, maintained, inspected, and stored.

5. Ensuring respirators are worn properly whenever conditions require respiratory protection.
6. Ensuring that their employees (including new or transferred employees) receive training, annual medical evaluations and/or questionnaires, annual respirator fit testing, and additional fit testing if an employee indicates a respirator no longer fits or is damaged.

C. Employees

All employees participating in the RPP are responsible for:

1. Wearing their respirators when and where required.
2. Ensuring respirators are worn properly.
3. Caring for and maintaining their respirators as instructed, and storing them in a clean, sanitary location.
4. Changing out their respirator cartridges according to the prescribed schedule found in **Section 6.9 Cartridge Change-Out Schedule**.
5. Informing their manager or supervisor if the respirator no longer fits or is found damaged.
6. Informing their manager, supervisor, or OH&S staff of any respiratory hazards that they feel are not adequately addressed in the workplace and any other concerns they have regarding the program.
7. Informing their manager or supervisor of the need for a medical re-evaluation if there is a change in health conditions.

ARTICLE IV – RESPIRATOR SELECTION PROCEDURES

Section 4.1 Hazard Evaluation

A hazard evaluation will be conducted for each operation, process, or work area whenever it is reasonable to expect that employees may be exposed to concentrations of airborne contaminants in excess of Cal/OSHA Permissible Exposure Limits including:

- A. Ensuring the evaluation incorporates the City's Hazard Communication Program, including the identification and development of a list of hazardous chemicals used in the workplace, by department or work process, and obtaining a Safety Data Sheet (SDS) for each of these chemicals.
- B. Reviewing work processes to determine where potential exposures to these hazardous chemicals may occur.
- C. If necessary, employee exposure monitoring and evaluations of objective information to estimate potential hazardous exposures may be used. Outside expertise, such as a consultant, may be used when needed.

Section 4.2 Respirator Selection and Types

- A. Respirators are selected in accordance with applicable Cal/OSHA standards and based on the respiratory hazards to which the worker may be exposed in the workplace, as well as usage factors that affect respiratory performance and reliability. Employees may choose from a selection of respirators approved for use by the RPP Administrator; see Appendix A *City of Corona Respirator Selection List*.
1. Respirators are selected based on the Assigned Protection Factors (APFs) and calculated Maximum Use Concentration (MUC). For instance, if the respirator selected has an APF of 10, it can only be used where employee exposures are less than 10 times the Cal/OSHA Permissible Exposure Limits.
 2. Only National Institute of Occupational Safety and Health (NIOSH) certified respirators may be selected and must be used in compliance with the conditions of their certification.
 3. Respiratory hazards are identified in the workplace for the proper Respirator selection use and when the City is unable to identify or reasonably estimate the employee's exposure, they consider the atmosphere to be IDLH.
 4. Respirators are selected from a sufficient number of respirator models and sizes to ensure acceptable use and correct fit.
- B. Respirators for atmosphere that are not IDLH (when Personal Protective Equipment is needed):
1. Respirators for atmosphere that are not IDLH are provided to protect the health of employees and to ensure compliance with all applicable regulatory requirements, under routine and reasonably foreseeable emergency situations.
 2. Respirator protection is selected for the chemical state and physical form of the airborne contaminant.
 - a) For protection against gases, fumes, vapors, the following respirators shall be used:
 - i. An atmosphere-supplying respirator; or
 - ii. An air-purifying respirator, provided that the respirator is equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant.
 - b) For protection against particulates the following respirators shall be used:
 - i. An atmosphere-supplying respirator: or
 - ii. A NIOSH certified, air-purifying respirator equipped with a high efficiency particulate air (HEPA) filter.

C. Respirators for IDLH (Immediately Dangerous to Life or Health)

1. The following respirators for employees in IDLH atmospheres must be used:
 - a) A full-face piece, pressure demand self-contained breathing apparatus (SCBA), certified by NIOSH; or a combination full face piece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
 - b) Respirators provided only for escape from IDLH atmospheres shall be NIOSH certified for escape from the atmosphere in which they are used.

D. Voluntary Use

Employees who wish to use a filtering facepiece (dust mask/N95) on a voluntary basis will be provided the *Voluntary Respirator Use form* (see Appendix B). OH&S staff will maintain records of employees who have acknowledged voluntary use information and are cleared to use filtering facepieces for voluntary use (Department provided or purchased on their own).

ARTICLE V – MEDICAL EVALUATIONS AND QUESTIONNAIRES

Section 5.1 Medical Evaluations for Respirator Use

A. New Hire

1. Employees are not permitted to wear respirators (except for voluntary use of a filtering dust mask) until a Physician or other Physician Licensed Healthcare Professional (PLHCP) has determined that they are medically able to do so.
2. New employees will be required to complete a confidential medical questionnaire and medical examination by the City's third-party medical provider.

B. Current employee

1. Medical evaluations will be conducted for an existing employee under RPP when any of the following apply:
 - a) The designated PLHCP determines that additional evaluations are required;
 - b) There are major physical and/or health changes to the employee noted by PLHCP, RPP Administrator, Management, or Supervisors, that may affect the employee's ability to use a respirator; or

c) At the direct request of the employee.

C. A PLHCP authorized by the City will perform a review of the medical evaluations in compliance with all applicable regulatory standards.

Section 5.2 Medical Questionnaires for Respirator Use

- A. All employees who are currently under RPP are required to complete an annual medical questionnaire for respirator use.
- B. OH&S staff will assign a confidential online medical questionnaire to all affected employees to be reviewed by a third-party PLHCP. Employees who are unable to complete an online medical questionnaire may also be sent to the City's third-party medical provider to complete the questionnaire.
- C. All medical questionnaires are confidential and may be completed during the employee's normal working hours or, alternatively, at a time and place convenient to the employee. All employees will be provided an opportunity to discuss the questionnaire and examination with the reviewing PLHCP.
- D. OH&S staff will obtain from the PLHCP a written medical determination regarding the employee's ability to use a respirator, indicating the following:
 - 1. Employee is medically cleared for unrestricted use;
 - 2. Employee is medically cleared with use restrictions; or
 - 3. Employee is not medically qualified to wear a respirator.
- E. In some cases, the PLHCP may require an additional evaluation (e.g. Pulmonary Function Testing or PFT) to further assess the employee's medical qualification and clearance status.

ARTICLE VI – FIT TESTING AND RESPIRATOR PROCEDURES

Section 6.1 Initial and Annual Fit Testing

Employees required to wear tight-fitting facepiece respirators must pass a fit test, at least annually, prior to initial use or whenever a different respirator facepiece (size, style, make, model,) is used.

Section 6.2 Additional Fit Testing

- A. Additional fit testing is required when the employee:
 - 1. Reports, or the PLHCP, supervisor, or OH&S staff observe changes in the employee's physical condition including:
 - a) Obvious change in body weight

- b) Significant facial scarring in the area of the facepiece seal
 - c) Significant dental changes, e.g., multiple extractions without prosthesis or acquiring dentures
 - d) Reconstructive or cosmetic surgery
 - e) Any other conditions that may interfere with facepieces sealing or respirator comfort
2. Notifies the City or the PLHCP that the fit of the respirator is unacceptable and wishes to select a different respirator facepiece.

Section 6.3 Annual Fit Testing Procedures

- A. Employee fit testing will be conducted according to the protocols provided in *Title 8 CCR, Section 5144 Appendix A, Fit Testing Procedures*. All respirators must fit the user properly to provide maximum protection.
- B. Fit testing may be either qualitative or quantitative.
 1. Qualitative fit testing (QLFT) involves the introduction of an aerosol test agent or irritant smoke into an area around the head of the respirator user. If the user can detect the presence of the test agent through subjective means, such as odor, taste, or irritation, the respirator fit is inadequate.
 2. QLFT may only be used to fit test negative-pressure air-purifying respirators that must achieve a fit factor of 100 or less.
 3. The quantitative fit test (QNFT) measures the leakage of the challenge agent into the respirator without dependence on a worker's response to it. Respirators that require a fit factor above 100 must be fit tested using the quantitative test method.
 4. QNFT may only be used to fit test a tight-fitting half-face piece respirator that must achieve a fit factor equal to or greater than 100, and tight-fitting full-face pieces equal to or greater than 500.
 5. Respirators cannot be modified at any point. They must be kept at their NIOSH-approved configuration during fit testing and as they are intended for use in the workplace.
- C. Employees must be fit tested at the following times with the same make, model, style, and size of respirator that will be assigned for use:
 1. Before performing specific job functions or tasks required to use a respirator;
 2. Whenever a different respirator face piece (size, style, model, or make) is issued;
 3. During annual fit testing;

4. At the request of the PLHCP, employee's direct supervisor, and/or RPP Administrator, based on visual observations of changes in the employee's physical condition that could potentially affect respirator fit. Such conditions include, but are not limited to facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight; or
5. When the employee advises that the fit of the current issued respirator is unacceptable and requests to be re-tested with a different respirator.

Section 6.4 Procedures for Routine Respirator Use

A. Face piece seal protection

1. Employees may not wear respirators with tight-fitting face pieces who have:
 - a) Facial hair that comes between or crosses over into the sealing surface of the respirator; see Appendix C *Facial Hairstyles and Filtering Facepiece Respirators*; or
 - b) A condition that interferes with the face-to-face piece seal or valve function.

B. Corrective Glasses or Goggles

If an employee wears corrective glasses or goggles, the Supervisor shall ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece of the user.

C. Tight – Fitting Respirators

Employees shall perform a “user seal check” each time they put on the respirator.

D. Respirator Effectiveness

1. Appropriate surveillance must be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may reduce respirator effectiveness, the supervisor shall reevaluate the continued use of the respirator.
2. Ensure that employees leave the respirator use area or zone to:

- a) Wash their faces and respirator face piece as necessary to prevent eye or skin irritation associated with respirator use; or
 - b) If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece; or
 - c) To replace the respirator or the filter, cartridge, or canister elements.
3. If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, the supervisor must replace the respirator or have it repaired before allowing the employee to return to the work area.

Section 6.5 Procedures for Use in Emergencies and IDLH Atmospheres

- A. For IDLH atmosphere locations, the Supervisor shall ensure that:
1. At least one employee must be located outside the IDLH atmosphere; two employees are required if fighting a structural fire.
 2. Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere, and the employee(s) located outside the IDLH atmosphere.
 3. The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue; in the event of an emergency, call 911 immediately.
 4. Provide notification to the department director/or manager and Fire Department before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue:
 - a) Corona Fire Department, once notified, provides necessary assistance appropriate to the situation.
 - b) Employee(s) located outside the IDLH atmosphere are equipped with:
 - i. Pressure demand or other positive pressure SCBA's, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either
 - ii. Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry.

Section 6.6 Maintenance and Care of Respirators

A. Proper maintenance and care procedures and schedules must be followed to ensure continued protection from respiratory protective devices.

1. Cleaning and Disinfecting

- a) Employees must ensure that respirators are cleaned and disinfected after each use, or as often as necessary to be maintained in a sanitary condition using the procedure below:
 - i. Respirators issued to more than one employee shall be cleaned and disinfected before worn by different individuals;
 - ii. Respirators maintained for emergency use shall be cleaned and disinfected after each use; and
 - iii. Respirators used in fit testing and training shall be cleaned and disinfected after each use.

2. Storage

- a) Supervisors shall ensure employee respirators are stored as follows:
 - i. All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. They shall also be packed or stored to prevent deformation of the face piece and exhalation valve.
- b) In addition to the above storage requirements, emergency respirators shall be:
 - i. Kept accessible to the work area;
 - ii. Stored in compartments or in covers that are clearly marked as containing emergency respirators; and
 - iii. Stored in accordance with any applicable manufacturer instructions.

3. Inspection

- a) In order to assure the continued reliability of respirator equipment, supervisors must ensure all types of respirators used in routine

situations are inspected before each use and during the cleaning process on the following:

- i. Check Respirator function, tightness of connections, and the condition of the various parts including, but not limited to the face piece, head straps, valves, connecting tube, and cartridges or filters; and
 - ii. A check of elastomeric parts for pliability and signs of deterioration.
- b) Self-contained breathing apparatus shall be inspected monthly; air cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. Supervisors shall determine that the regulator and warning devices function properly.
 - c) All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with manufacturer recommendations and shall be checked for proper function before each use.
 - d) Emergency-fit factor respirators shall be inspected before being carried into the workplace for use.

4. Respirator Maintenance and Repairs

- a) Respirators that fail an inspection or are otherwise found to be defective shall be removed from service, and will be discarded or repaired or adjusted in accordance with the following procedures:
 - i. Repairs or adjustments to respirators are to be made only by employees appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator.
 - ii. Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed; and
 - iii. Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

Section 6.7 Cylinders

- A. Supervisors shall ensure that cylinders used to supply breathing air to respirators meet the following requirements:
1. Cylinders are tested and maintained as prescribed in the Shipping Container Specification regulations of the Department of Transportation (49 CFR 173 and Part 178);
 2. Cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air: and
 3. The moisture content in the cylinder does not exceed a dew point of -50 deg. F (-45.6 deg C) at 1 atmosphere pressure.

Section 6.8 Filters, Cartridges & Canisters

Supervisors shall ensure that all filters, cartridges and canisters used in the workplace are labeled and color coded with the NIOSH label and that the label is not removed and remains legible.

Section 6.9 Cartridge Change-Out Schedules

- A. New Cartridge Use - Respirator cartridges that are sealed in their original packaging have a 5-year life. It is recommended that departments who purchase respirators should write the delivery date onto new inventory. It is the responsibility of departments to remove any inventory that exceeds 54 months (4.5 years) from delivery date.
- B. Opened Cartridge Use - Respirator cartridges that are removed from packaging have a 6-month life if they are not used.

ARTICLE VII – TRAINING

Section 7.1 Respirator Training

- A. The RPP training program:
1. Is conducted on a periodic and yearly basis to ensure program updates, annual medical evaluations, and annual fit testing occurs;
 2. Explains why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
 3. Discusses what the limitations and capabilities of the respirator are;
 4. Reviews how to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
 5. Covers how to inspect, put on, and remove, use, and check the seals of the respirator;

6. Outlines procedures for maintenance and storage of the respirator;
7. Teaches how to recognize medical signs and symptoms that may limit or prevent the effective use of respirator; and
8. Provides an overview of the general requirements of California Code of Regulations, title 8, Section 5144, Subchapter 7, General Industry Safety Orders.

ARTICLE VIII – PROGRAM EVALUATION AND AVAILABILITY

Section 8.1 Annual Program Evaluation

- A. Problems with respirator protection, irritation, breathing resistance, comfort, and other respirator-related factors occur periodically. Although it is not possible to eliminate all problems associated with respirator use, the Program Administrator will thoroughly evaluate and, as necessary, revise the RPP to proactively address problems.
- B. The RPP evaluation is performed at least annually by the Program Administrator and involves:
 1. Conducting evaluations of the workplace to ensure that the provisions of the program are effectively implemented; and
 2. Regularly consulting employees who are required to use respirators to assess program effectiveness and identify any problems.

Section 8.2 Program Availability

The written RPP is available to all City of Corona employees, their designated representatives, and Cal/OSHA upon request. Electronic copies are available for viewing in the digital Enterprise Health and Safety Management Platform under Document Library or Administrative Policy Library under Safety.

APPENDIX

- A. Appendix A – *City of Corona Respirator Selection List*
 - B. Appendix B – *Form for Voluntary Respirator Use*
 - C. Appendix C – *Facial Hairstyles and Filtering Facepiece Respirators*
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Appendix A City of Corona Respirator Selection List

Notes	Voluntary			Required		
	Job Activity	Respirator Type	Cartridges/ Filters used	Job Activity	Respirator Type	Cartridges/ Filters Used
Aboveground Maintenance						
				Maintenance of Chemical Tanks, Skid Lines, etc.	FF	Multi-gas cartridge (olive green)
				Sweeping Rodent Feces	FF	P100 / N95
	Wildfire smoke - VOLUNTARY when AQI >150 & <500	FFP	N95	Wildfire smoke - REQUIRED when AQI ≥ 500	Minimum FFP Recommend FF	P100 (pink) P100 (pink)
				Cleaning Flange Feces containing Asbestos Gasket	FF	P100 (pink) / N95
Underground Maintenance						
				Asbestos pipe breaking/ cutting	HF or FF	P100 (pink)
Refer to Section 1532.3 Table 1 for specific activities and associated respiratory protection	Drilling/cutting/breaking concrete/asphalt less than Action Level (25 micrograms 8TWA	FFP	N95	Drilling/cutting/breaking concrete greater than Action Level (25 micrograms 8TWA	FFP, HF, or FF	P100 (pink)
	Wildfire smoke - VOLUNTARY when AQI >150 & <500	FFP	N95	Wildfire smoke - REQUIRED when AQI ≥ 500	Minimum FFP Recommend FF	P100 (pink) P100 (pink)
Police - Mobile Field Force						
	none			Riot Control /Chemical Agent Depolyment	FF	AVON CBRNCF50
Police - Temporary Holding Facility (Jail)						
	Cleaning (approx 1 hour per day)	FFP	N95	Fire Safety / Emergency Evacuation	FF	Scott 2216 PSI SCBA
	Prisoner Processing (10 hrs per day)	FFP	N95			
Police - Special Response Team						
	none			Deploying Chemical agents (CS & OC)	FF	P100 / CS / CN /PH
Animal Control						
	Sweeping Floors inside of Building	FFP	N95	none		
	Cleaning Dog / Cat Kennels	FFP	N95			

Notes	Voluntary			Required		
	Job Activity	Respirator Type	Cartridges/ Filters used	Job Activity	Respirator Type	Cartridges/ Filters Used
	Spraying Kennel Kare Product to disinfect dog/ cat kennel	FFP	N95			
	Administering Euthosol to Animals	FFP	N95			
Must evaluate each environment to determine potential hazard(s)				Entering homes where excess amount of urine and fecal matter	HF	Ammonia Cartridge (green) with P100 (pink) filter
	Entering deceased animal freezer	FFP	N95			
Code Compliance						
Must evaluate each environment to determine potential hazard(s)				Marijuana Grows / Butane Oil	HF	P100 (pink)
Must evaluate each environment to determine potential hazard(s)				Hoarding Case inspections (Fecal matter, dust, rodent infestation)	FFP	N95
Forensics						
	Ninhydrin spray application	HF	Organic Vapor (black) cartridge and P100 (pink)	Processing evidence Forensic Lab	FFP	N95
				Ninhydrin spray application (Not in Lab)	HF	Organic Vapor (black) cartridge and P100 (pink)
	Bluestar Spray	FFP	Organic Vapor / Acid Gas cartridge (Yellow) with P100 (pink)	Responding to crime scenes and dealing with unknown (blood, drugs, etc.)	FFP	N95
	Cyanoacrylate fuming chamber	HF	Organic Vapor (black) cartridge and P100 (pink)			
Splash protection should be worn				Cleaning with Solvents	HF	Organic Vapor Cartridge (black)
				Responding to arson and dealing with fire debris	FFP	N95, but P100 (pink) preferred
				Fingerprint Powder	FFP	N95
Facilities Maintenance Tech						
	Drywall/ Sanding/ Demolition	FFP	N95	None		
	Various Plumbing	FFP	N95	None		
Community Services - Parks & Landscape						

Notes	Voluntary			Required		
	Job Activity	Respirator Type	Cartridges/ Filters used	Job Activity	Respirator Type	Cartridges/ Filters Used
	Paint (Rolling Paint)	FFP	N95	Exceeding PEL for paint vapor exposure (Spraying Paint)	HF	Organic Vapor cartridge (black) and particulate pre-filter OV/AG OK to use (Yellow)
	Blowing /Sweeping Generic Dust	FFP	N95			
Splash protection should be worn				Using Solvents to clean Graffiti when greater than Action Level / PEL	HF	Organic Vapor cartridge (black) OV/AG OK to use (Yellow)
Refer to Section 1532.3 Table 1 for specific activities and associated respiratory protection (See Table 1)	Drilling/cutting/breaking concrete and brick wall repair activities less than Action Level (25 micrograms 8TWA	FFP (See Table 1)	N95	Drilling/cutting/breaking concrete and brick wall repair activities greater than Action Level (25 micrograms 8TWA	FFP, HF, or FF (See Table 1)	P100 (pink)
	Cleaning Homeless Encampments	FFP	N95			
				Spraying Pesticides /Herbicides	HF	Organic Vapor cartridge (Black or Yellow)
				Landscape equipment	HF	N95
	Wildfire smoke - VOLUNTARY when AQI >150 & <500	FFP	N95	Wildfire smoke - REQUIRED when AQI ≥ 500	Minimum FFP Recommend FF	P100 (pink) P100 (pink)
Splash protection should be worn	Servicing Pool Equipment and chemical addition	FFP	N95	Exceeding PEL for Acid (chlorine, muriatic)	HF with Goggles	Acid Gas cartridge (White or Yellow)
Splash protection should be worn	Servicing Pool Equipment and chemical addition	FFP	N95	Exceeding PEL for Chlorine	HF with Goggles	Acid Gas cartridge (White or Yellow)
	Fertilizer Dust	FFP	N95			
	Pressure Washing	FFP	N95			
Water Operations						
	Maintenance - sweeping / Dust	FFP	N95 or P100 (pink)	Chemical Offloading	FF	3M Multi Gas (Olive Green) / Vapor/ P100
				Chemical System Repair	FF	3M Multi Gas (Olive Green) / Vapor / P100
Water Reclamation						
	Maintenance/sweeping/ Dust	FFP	N95	Chemical System Repair	FF	3M Multi Gas (Olive Green) / Vapor/ P100
SCADA Division						

Notes	<u>Voluntary</u>			<u>Required</u>		
	Job Activity	Respirator Type	Cartridges/ Filters used	Job Activity	Respirator Type	Cartridges/ Filters Used
				Unusually large amounts of residual chemical substance released and present during SCADA arrival	FF Scott AV3000	Acid Gas / Organic Vapor with P100 Filter (Yellow cartridge with pink filter)
Streets Department						
	Weed abatement	FFP	P100 (pink)	Grinding lifted sections of concrete (Grinder has HEPA vacuum attached for dust control)	FFP	P100 (pink)
Refer to Section 1532.3 Table 1 for specific activities and associated respiratory protection	Jack hammer operations	FFP	P100 (pink)	Grinding asphalt with hydraulic planner attached to skid steer	FFP	P100 (pink)
	Pesticide spraying	FFP	P100 (pink)			
	Painting curbs, Striping lanes	FFP	P100 (pink)			

Cartridge and Filter Photo Legend						
N95	P100	Organic Vapor	Acid Gas	Acid Gas / Organic Vapor	Acid Gas / Organic Vapor with	3M Multi-Gas
						

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(i) Stationary masonry saws</p> 	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer’s instructions to minimize dust emissions.</p>	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzle is working properly to apply water at the point of dust generation; ■ The spray nozzle is not clogged or damaged; and ■ All hoses and connections are intact.
<p>(ii) Handheld power saws (any blade diameter)</p> 	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer’s instructions to minimize dust emissions.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	None APF 10	APF 10 APF 10	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzle is working properly to apply water at the point of dust generation; ■ The spray nozzle is not clogged or damaged; ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHOD WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(iii) Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less)</p> 	<p>For tasks performed <u>outdoors only</u>:</p> <ul style="list-style-type: none"> ■ Use saw equipped with commercially available dust collection system. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ■ Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency. 	None	None	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud or cowl is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions to prevent clogging; and ■ The dust collection bags are emptied to avoid overfilling.
<p>(iv) Walk-behind saws</p> 	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	None APF 10	None APF 10	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly to apply water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(v) Drivable saws</p> 	<p>For tasks performed <u>outdoors only</u>:</p> <ul style="list-style-type: none"> ■ Use saw equipped with integrated water delivery system that continuously feeds water to the blade. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.
<p>(vi) Rig-mounted core saws or drills</p> 	<ul style="list-style-type: none"> ■ Use tool equipped with integrated water delivery system that supplies water to cutting surface. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)</p> 	<ul style="list-style-type: none"> ■ Use drill equipped with commercially available shroud or cowling with dust collection system. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ■ Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. ■ Use a HEPA-filtered vacuum when cleaning holes. 	None	None	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud or cowling is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(viii) Dowel drilling rigs for concrete</p> 	<p>For tasks performed <u>outdoors only</u>:</p> <ul style="list-style-type: none"> ■ Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. ■ Use a HEPA-filtered vacuum when cleaning holes. 	APF 10	APF 10	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(ix) Vehicle-mounted drilling rigs for rock and concrete</p> 	<p>Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.</p> <p>OR</p> <p>Operate from within an enclosed cab and use water for dust suppression on drill bit.</p>	None	None	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud or hood is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling. <p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust Suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water on the discharge point from the dust collector; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.
		None	None	

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(x) Jackhammers and handheld powered chipping tools</p> 	<p>Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. <p style="text-align: center;">OR</p> <p>Use tool equipped with commercially available shroud and dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	<p>None</p> <p>APF 10</p>	<p>APF 10</p> <p>APF 10</p>	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The water sprays are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact. <p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xi) Handheld grinders for mortar removal (i.e., tuckpointing)</p> 	<p>Use grinder equipped with commercially available shroud and dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.</p>	APF 10	APF 25	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud is intact, encloses most of the grinding blade, and is installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; ■ The dust collection bags are emptied to avoid overfilling; ■ The blade is kept flush against the surface whenever possible; and ■ The tool is operated against the direction of blade rotation, whenever practical.

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xii) Handheld grinders for uses other than mortar removal</p> 	<p>For tasks performed <u>outdoors only</u>:</p> <p>Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p style="text-align: center;">OR</p> <p>Use grinder equipped with commercially available shroud and dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	None	> 4 hours /shift	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact. <p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xiii) Walk-behind milling machines and floor grinders</p> 	<p>Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p style="text-align: center;">OR</p> <p>Use machine equipped with dust collection system recommended by the manufacturer.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.</p> <p>When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.</p>	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact. <p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions to prevent clogging; and ■ The dust collection bags are emptied to avoid overfilling.
		None	None	

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xiv) Small drivable milling machines (less than half-lane)</p> 	<p>Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant.</p> <p>Operate and maintain machine to minimize dust emissions.</p>	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper</i> implementation require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xv) Large drivable milling machines (half-lane and larger)</p> 	<p>For cuts of any depth on asphalt only:</p> <p>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.</p> <p>Operate and maintain machine to minimize dust emissions.</p> <p>For cuts of four inches in depth or less on any substrate:</p> <p>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.</p> <p>Operate and maintain machine to minimize dust emissions.</p> <p>OR</p> <p>Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant.</p> <p>Operate and maintain machine to minimize dust emissions.</p>	None	None	
		None	None	
		None	None	

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xvi) Crushing machines</p> 	<p>Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points).</p> <p>Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.</p>	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ Nozzles are located upstream of dust generation points and positioned to thoroughly wet the material; ■ The volume and size of droplets is adequate to sufficiently wet the material (optimal droplet size is between 10 and 150 µm); and ■ Spray nozzles are located far enough from the target area to provide complete water coverage but not so far that the water is carried away by wind.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper</i> implementation require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramping, rock ripping) or used during demolition activities involving silica-containing materials**</p> 	<p>Operate equipment from within an enclosed cab.</p> <p>When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.</p>	None	None	
		None	None	

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA (§1532.3)

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials</p> 	<p>Apply water and/or dust suppressants as necessary to minimize dust emissions.</p> <p>OR</p> <p>When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.</p>	None	None	<p>The following scenarios are examples of when the employer must use water and/or dust suppressants as necessary to minimize dust emissions:</p> <ul style="list-style-type: none"> ■ Equipment for grading and excavating is not equipped with enclosed, pressurized cabs. <p>OR</p> <ul style="list-style-type: none"> ■ Employees other than the operator are engaged in the task. If water or dust suppressants are applied as necessary to minimize visible dust, the employer need not provide an enclosed, filtered cab for the operator.
		None	None	

APF 10 (requires fit testing)	APF 25
 <p>Dust Mask/Half Mask</p>	 <p>Half Mask (Elastomeric)</p>
	 <p>Loose-Fitting Powered Air-Purifying Respirator (PAPR)</p>
	 <p>Hooded Powered Air-Purifying Respirator (PAPR)</p>

* § 1532.3. Occupational Exposures to Respirable Crystalline Silica. https://www.dir.ca.gov/title8/1532_3.html



Appendix B: Form for Voluntary Respirator Use

Some employees, or affiliates may choose to use filtering facepiece respirators, also referred to as N95 or P100 disposable dust masks, on a voluntary basis during activities that involve exposures to low-level, non-hazardous nuisance dust or other similar particulate. According to the California Occupational Safety and Health Administration (Cal/OSHA) regulations, the City of Corona must provide you with the following information if you wear a filtering facepiece respirator voluntarily. The following information is copied from the Cal/OSHA Respiratory Protection Standard and pertains to the voluntary use of respirators. After reading the information below, please complete the section at the end of this form.

California Code of Regulations, Title 8, § 5144., Appendix D - (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

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 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.

The filtering facepiece respirator you have elected to use is approved, when fitted properly, for use against nuisance non-hazardous particulate (e.g., fiberglass, sheet rock dust, sawdust, dirt, pollen, animal dander). It will not provide protection from any chemical vapors such as those associated with spray paints or solvents. It is not intended for use during work that may involve exposure to airborne asbestos fibers, silica dust, or lead dust. Work you perform that may involve airborne asbestos fibers, silica dust, or lead dust should be reviewed by Safety Division before the project proceeds. If you have questions concerning any of this information, please contact the **Safety Division: SAFETY@CoronaCA.gov**.

Please complete the section below:

Name (print): _____ Job Title: _____

Department: _____ Supervisor: _____

Reason for using dust mask (describe nature of work, specific location,
and type of dust): _____

I have read and understood the information provided above (signature and date):

Appendix C - Facial Hairstyles and Filtering Facepiece Respirators

Intended for workers who wear tight-fitting respirators

RESPIRATOR SEALING SURFACE

 CLEAN SHAVEN	 STUBBLE	 LONG STUBBLE	 FULL BEARD	 FRENCH FORK	 DUCKTAIL	 VERDI	 GARIBALDI	 BANDHOLZ
 SOUL PATCH	 GOATEE	 CHIN CURTAIN	 EXTENDED GOATEE	 CIRCLE BEARD	 ANCHOR	 BALBO	 VAN DYKE	 IMPERIAL
 SIDE WHISKERS	 MUTTON CHOPS	 HULIHIEE	 HORSESHOE	 ZAPPA	 WALRUS	 PAINTER'S BRUSH	 CHEVRON	 HANDLEBAR
 PENCIL	 LAMP SHADE	 ZORRO	 VILLAIN	 WET NOODLE	 ENGLISH	 DALI		

(Careful! Chin hair may easily cross the seal)

(Careful! Chin hair may easily cross the seal)

(Careful not to cross the seal)

(Careful not to cross the seal)

(Careful not to cross the seal)

*If your respirator has an exhalation valve, some of these styles may interfere with the valve working properly if the facial hair comes in contact with it.
 †This graphic may not include all types of facial hairstyles. For any style, hair should not cross under the respirator sealing surface.
 Source: OSHA Respiratory Protection Standard
https://www.osha.gov/pdfs/oshachavehowwtdsp_show_document?2_fable=standards&_id=12716
 Further Reading: NIOSH Respirator Trusted-Source Webpage
https://www.cdc.gov/niosh/npp/topics/respirators/resp_part/respsource3/fittest.html

