

Respiratory Protection Program Voluntary Use

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1.0 PROGRAM EVALUATION: PURPOSE AND CERTIFICATION

The Respiratory Protection Evaluation for the City of Burlingame Department of Public Works (Public Works) was conducted to ascertain whether employees perform job duties that require the use respirators, including filtering facepiece respirators. This evaluation will be reviewed annually to ensure changes to the work environment, hazardous substances, and/or to assigned work tasks, do not require a written Respiratory Protection program. This evaluation will be documented on the *Program Review and Certification Log* Attachment A.

2.0 GENERAL APPLICATION INFORMATION

2.1 Based on industry exposure data and atmospheric monitoring results (Attachment H), Public Works employees are *not required* to wear *any type* of tight-fitting respirator, including filtering face piece respirators (dust masks) so long as the administrative and engineering controls described in Attachment B are observed for the tasks indicated.

- If employees are required to wear a tight-fitting respirator, including filtering face piece respirators (dust mask), the respective respiratory protection program requirements of CCR, Title 8, Section 5144 (8 CCR §5144) will be fully implemented.

2.2 Public Works employees are *allowed* to wear a tight-fitting respirator *voluntarily* provided the employee has met the medical evaluation conditions described in Section 5.0 and follow the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user (Section 7.0).

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- 2.3 Public Works employees may wear a filtering face piece (dust mask) voluntarily. Although volunteer use of a filtering face piece respirator (dust mask) is exempt from all Cal/OSHA respiratory protection program requirements, dirty dust masks, dust masks that interfere with the employees' ability to work safely, and nuisance-style masks (i.e. not NIOSH approved) are not allowed to be worn in the work place.
- 2.4 The respiratory Job Hazard Analysis (JHA) has been summarized in Attachment B of this policy. This JHA is intended to provide employees with guidance on how to perform certain job activities so that airborne exposures do not exceed Cal/OSHA permissible exposure limits using the identified administrative and engineering controls.

3.0 DEFINITIONS

Affected Employees: Employees whose job duties require them (or may require them) to don a tight-fitting respirator (including a filtering face piece respirator). There are no affected employees at the Public Works Corporation Yard as of the date of this evaluation.

Dust mask – A filtering face piece respirator. Only dust masks that are NIOSH approved are used in the workplace.

Filtering face piece (dust mask) – 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.

Immediately dangerous to life or health (IDLH) – 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.

Physician or other licensed health care professional (PLHCP) – An individual whose legally permitted scope of practice (i.e. license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by CalOSHA, § 5144 (e).

Program Administrator - The Program Administrator has overall responsibility for administering the various components of the respiratory protection program. According to the California Code of Regulations, appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness must qualify the Program Administrator. At the Public Works Corporation Yard, the Respiratory Protection Program Administrator is the Deputy Director of Public Works Operations, or designee.

Tight-fitting face piece – A respirator inlet covering that forms a complete seal with the face. A filtering face piece (dust mask) is considered by NIOSH to be a tight-fitting respirator.

User seal check – An action conducted by the respirator user to determine if the respirator is properly seated to the face.

Voluntary Use - When an employee chooses to wear a respirator when there is no respiratory hazard to the user (i.e. exposures less than the permissible exposure levels), when regulatory requirements do not mandate use of a respirator, and when company policy does not mandate use of a respirator. Voluntary

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uses often include wearing a respirator for non-hazardous conditions such as nuisance level dusts, pollens, animal dander, or nuisance odors.

4.0 RESPONSIBILITIES

4.1 Program Administrator:

The Program Administrator for Public Works is the Deputy Director of Public Works Operations. The Program Administrator has overall responsibility for ensuring the Respiratory Protection Program is administered and implemented. Specific responsibilities include, but are not limited to:

- Overall responsibility and authority for ensuring this program is fully implemented.
- Ensuring that funding is provided to successfully implement the program requirements.
- Ensuring that the policy and program requirements are enforced.
- Ensuring that a respiratory protection program evaluation and job hazard analysis is performed annually.

4.2 Supervisors: Supervisors are responsible for:

- Enforcing respirator use in accordance with this program (e.g. not allowing employees to wear a tight-fitting respirator other than voluntary use of a dust mask unless they have been medically evaluated).
- Ensuring employees are provided with Attachment G, Handout for Voluntary Respirator Users.
- Enforcing respirator use in accordance with this program
- Ensuring that respirators are properly cleaned, disinfected, maintained and stored according to the procedures specified in this program.
- Ensuring that employees replace dust masks when they become worn, soiled or damaged.
- Using all available resources (Program Administrator, manufacturer, SDS, etc) in determining if a respirator is needed for a new job task or hazardous product brought into the worksite.
- Working with the program administrator to address respiratory hazards or other concerns regarding the respiratory protection program.
- Informing the program administrator of any changes to the work place or working conditions that may affect the respiratory protection program.

4.3 Employees: All employees are responsible for:

- Being familiar with Attachment B in order to determine safe work practices (i.e. normal working conditions).
- Maintaining, cleaning, disinfecting and storing individually assigned according to the procedures specified in this program.
- Replacing a filtering face piece respirator (dust mask) when it becomes worn, soiled or damaged.
- Informing the Program Administrator or supervisor of any respiratory hazards that they think are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

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- Not entering any work area that is oxygen deficient or Immediately Dangerous to Life and Health (IDLH). Atmospheres that cannot be monitored will be treated as an IDLH environment.

5.0 MEDICAL EVALUATIONS

- 5.1 Employees who have been allowed to voluntarily wear tight fitting respirators (*except filtering facepiece respirators*), will be medically evaluated to determine if they are medically able to wear a respirator. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation is not allowed to wear tight fitting respirators. Employees who have been allowed to wear a filtering face piece (i.e. dust mask) voluntarily do not need to be medically evaluated.
- 5.2 A licensed physician or other licensed health care professional (PLHCP) will perform the medical evaluation using the CalOSHA questionnaire provided in Attachment F of this program, or its equivalent. The evaluation process will be administered in the following manner:
- 5.2.1 The medical evaluation is conducted using the questionnaire provided in Attachment F of this program, or its equivalent.
- 5.2.2 If employees are unable to read the questionnaire they will review it with the physician or PLHCP at the time of the medical evaluation. The City will contact the physician or PLHCP prior to the medical evaluation to ensure that an interpreter is available.
- 5.2.3 The physician or PLHCP will provide written recommendations on the employee's ability to safely wear a tight-fitting respirator. The physician or PLHCP will send provide the City with employee's clearances or use restrictions. These will reports are not to contain any personal medical information, only whether an employee can wear a tight-fitting respirator, with or without use restrictions, or not.
- 5.2.4 The Deputy Director of Public Works Operations will maintain copies of the medical records for all employees covered under the respirator program. These records are confidential and will be maintained and filed in accordance with the City's applicable confidentiality procedures. However, the Deputy Director of Public Works Operations will review and/or retain the physician's written recommendations regarding each employee's ability to safely wear a respirator.
- 5.2.5 Follow-up medical exams are dependent upon how employees answer specific questions in the CalOSHA medical questionnaire and/or if deemed necessary by the physician or PLHCP.
- 5.2.6 All employees are granted the opportunity to speak with the physician or PLHCP about their medical evaluation, if they so request.
- 5.2.7 The completed questionnaire will be retained by the PLHCP.
- 5.3 After an employee has received clearance and begun to wear his or her respirator, additional medical evaluations are provided under the following circumstances:
- If recommended by the Physician or Health Care Provider.
 - Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
 - The PLHCP or employee supervisor informs the Program Administrator that the employee needs to be reevaluated;

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- Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation;
- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

5.2.4 The Program Administrator, or designee, will provide the following to the PLHCP before or at the time of, the medical evaluation the following.

- A copy of this respiratory protection program.
- A copy of CalOSHA, § 5144, Respiratory Protection standard.
- List or description of the hazardous airborne hazardous substances employees may be exposed.

6.0 FIT TESTING

6.1 In accordance with Title 8 CCR Section 5144, fit testing is not required for any respirator that is worn voluntarily or for loose-fitting escape-only respirators.

7.0 CLEANING, DISINFECTION, STORAGE AND REPAIRS

7.1 Respirators are to be regularly cleaned and disinfected in accordance with Attachment I. Respirators that are issued for the exclusive use of an employee will be cleaned as often as necessary, but at least after each shift.

7.2 Respirators are to be stored in a clean, dry area that protects them from damage, contamination, sunlight, moisture, chemicals, and extreme temperatures.

7.3 Repairs will only be made by persons appropriately trained to perform this operation.

- No components will be replaced or repaired beyond those recommended by the manufacturer.
- Respirators will only be serviced by the manufacturer or a technician trained by the manufacturer.

8.0 TRAINING

The Program Administrator will coordinate and/or provide training to all respirator users. Employees will be trained prior to using a respirator and will receive refresher training annually or more frequently, if needed. The training will cover the following:

- 8.1 The training course covers the following topics:
- A. The Public Works Respiratory Protection Program
 - B. The Cal-OSHA Respiratory Protection standard
 - C. Maintenance and storage
 - D. Medical signs and symptoms limiting the effective use of respirators

9.0 PROGRAM EVALUATION

9.1 The Program Administrator, or designee, will conduct periodic evaluations of the workplace to ensure that the written program is being implemented. The evaluation will include consultations

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with employees and their respective supervisors, site inspections, air monitoring results, a review of records or a combination thereof. The Program Administrator will address problems identified.

- 9.2 If information comes to the attention of management that respiratory protection procedures are not fully effective or require revisions, these procedures will be revised as necessary. Employees shall be retrained on any changes that affect employee safety.

10.0 RECORD KEEPING

- 10.1 A written copy of this program and related documents are located with the Deputy Director of Public Works Operations and is available to all employees who wish to review it.
- 10.2 Related documents such as respiratory job hazard analyses, training records, program evaluation records, and any other related materials are available for review upon request.
- 10.3 The Deputy Director of Public Works Operations will maintain copies of the medical records for all employees covered under the respirator program. These records are confidential and will be maintained and filed in accordance with City of Burlingame's applicable confidentiality procedures. However, the Deputy Director of Public Works Operations will review and/or retain the physician's written recommendations regarding each employee's ability to safely wear a respirator.
- 10.4 Employee training records are maintained for a minimum of 3 years from the date on which the training occurred and include the following information:
- The dates of the training sessions
 - The contents or a summary of the training sessions
 - The names of persons conducting the training
 - The signature and/or initials of all persons attending the training sessions

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**ATTACHMENT A
Respiratory Protection Evaluation Review and Certification Log**

<i>Respiratory Protection Program</i>		
Month/Year	Indicate (month & year) when a respiratory Job Hazard Analysis was last performed to determine if employees are exposed to airborne contaminants greater than the Cal/OSHA allowable limits. Note any subsequent changes to the RPP.	Name
Oct 2020	Replaced the job title of Public Works Superintendent with Deputy Director of Public Works Operations	RM

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ATTACHMENT B *Respirator Selection & Use Guidelines by Job Activity*

Job Activity	Contaminant Description	State:	Allowable Limits: PEL/TLV	“Normal Working Conditions” means the following Engineering/Administrative controls are used to minimize exposure to < PEL	Respiratory Use & Type Under “Normal Working Conditions”	Prohibited Activities To Prevent Respiratory Exposures >PEL	Respirator Change Schedule
Transite Pipe Cutting/breaking/sawing	Asbestos fibers Silica	Solid	Asbestos: >0.1 fiber/cc in air (8-hr TWA) Crystalline Silica: 0.1 mg/m ³ (8-hr TWA)	Exposure Assessment and/or Negative Exposure Assessment demonstrates that work practices do not expose employees to asbestos or silica greater than the allowable PEL. (Refer to Transite Pipe Policy)	Required Use: None Voluntary Use: ½ mask APR with HEPA (P100) particulate filter Emergency Use: Positive-pressure SAR full-face respirator if asbestos fibers >2f/cc	Performing transite pipe work without an initial exposure assessment, or a negative exposure assessment. Exposure assessments demonstrate exposures greater than allowable limits	Change APR particulate respirator if soiled, contaminated, and/or when it becomes difficult to breath.
Cement work (non-transite pipe); cutting, sanding, core boring, etc.	Silica	Solid	Crystalline Silica: 0.1 mg/m ³ (8-hr TWA)	Exposure Assessment and/or Negative Exposure Assessment demonstrates that work practices do not expose employees to silica greater than the allowable PEL.	Required Use: None Voluntary Use: ½ mask APR with HEPA (P100) particulate filter	Performing concrete work without an initial exposure assessment, or a negative exposure assessment Exposure assessments demonstrate exposures greater than allowable limits	Change APR particulate respirator if soiled, contaminated, and/or when it becomes difficult to breath.
Aerosol degreasing agent use	Varies	Mist Vapor	Varies (see MSDS)	Outdoors = none. Indoors = Conduct operations indoors using local ventilation	Required Use: None Voluntary Use: Particulate N95 or 100 filtering face piece (dust mask) or higher.	When MSDS recommends the use of a respirator or when ventilation is limited.	Change if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.

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Job Activity	Contaminant Description	State:	Allowable Limits: PEL/TLV	“Normal Working Conditions” means the following Engineering/Administrative controls are used to minimize exposure to < PEL	Respiratory Use & Type Under “Normal Working Conditions”	Prohibited Activities To Prevent Respiratory Exposures >PEL	Respirator Change Schedule
Confined Space Entry	O2 deficiency H2S, CH4, CO2 & other sewer gases.	Gas	19.5% to 23.5% - O2 10 ppm – H2S 25 ppm - CO2	<ul style="list-style-type: none"> • Air monitoring indicates acceptable atmospheric conditions. • Exit upon alarm conditions. • Mechanical ventilation. • Self and non-entry rescue equipment on site. 	<p>Required Use: None</p> <p>Voluntary Use: Particulate N95 or 100 filtering face piece (dust mask), for <u>odors or mists</u>.</p>	Entry into IDLH atmospheres is strictly prohibited unless authorized by the Entry Supervisor	NA
Confined Space Entry Rescue	O2 deficiency H2S, CH4, CO2 & other sewer gases.	Gas	19.5% - 23.5% - O2 10 ppm – H2S 25 ppm - CO2	<p>Perform confined space non-entry rescue whenever possible.</p> <p>Confined space entry rescue requires additional air monitoring and rescue plan. See Confined Space Policy, Attachment F</p>	<p>Required Use: SCBA or SAR with emergency escape bottle when atmosphere contaminants are outside allowable limits</p>	Only Authorized Confined Space Entry Rescuers are Allowed to Perform Confined Space Entry Rescue Operations	NA
Application of chemicals in unventilated, enclosed space	Refer to MSDS	Mist Vapor	Refer to MSDS	Conduct operations indoors using local ventilation	<p>Required Use: None</p> <p>Voluntary Use: Particulate N95 filtering face piece (dust mask) or higher.</p>	When MSDS recommends the use of a respirator or when ventilation is limited	Change if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Cutting/ grinding NON stainless steel, aluminum or galvanized metal	Iron oxide dust Lead Other Particulates	Dust Dust Dust	10 mg/m ³ 0.05 mg/ m ³ 10 mg/m ³	Grind in well ventilated areas (i.e. using local ventilation, or indoors with natural or general ventilation, or outdoors)	<p>Required Use: None</p> <p>Voluntary Use: Particulate N95 filtering face piece (dust mask) or higher.</p>	Cutting/grinding hazardous substances like lead based paints, or grinding longer than 15 minutes in enclosed work area.	Change after each use or if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Dust: Nuisance dusts and particulates (non silica, non wood)	Particulates not otherwise regulated	Inert dust	Total dust: 10 ppm	Perform dust creating activities in well-ventilated areas (i.e. using local ventilation, or indoors with natural or general ventilation, or outdoors). Visibility is not	<p>Required Use: None</p> <p>Voluntary Use: Particulate N95 filtering face piece (dust mask)</p>	Creating dusts exposures that limit visibility or are greater than allowable limits.	Change after each use or if respirator becomes soiled or contaminated, and/or when it becomes

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Job Activity	Contaminant Description	State:	Allowable Limits: PEL/TLV	“Normal Working Conditions” means the following Engineering/Administrative controls are used to minimize exposure to < PEL	Respiratory Use & Type Under “Normal Working Conditions”	Prohibited Activities To Prevent Respiratory Exposures >PEL	Respirator Change Schedule
				obscured by dust particulates.	or higher.		difficult to breathe.
Dust: Wood	Wood dust	Wood dust	Soft/hard woods: 5 mg/M ³ Western red cedar: 2.5 mg/M ³	Perform activities that create wood dusts in well-ventilated areas (i.e. using local ventilation, or indoors with natural or general ventilation, or outdoors). Visibility is not obscured by dust particulates.	Required Use: None Voluntary Use: Particulate N95 filtering face piece (dust mask) or higher.	Creating dusts exposures greater than allowable limits.	Change after each use or if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Ferric Chloride	43% solution FeCl ₃ (Iron III) Hydrochloric acid	Mist Gas	1 mg/m ³ as Fe 5 ppm	Chemical and associated equipment located outdoors in open air. No off-gassing or fumes.	Required Use = None Voluntary Use Type: P95 Organic vapor filtering facepiece	Working with greater than 5-gallons of ferric chloride exposed to the air in areas with limited ventilation, or off-gassing is occurring.	Change if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Painting – (non-spray painting)	Refer to MSDS	Mist Vapor	Refer to MSDS	Outdoors = Conduct operations in well-ventilated areas Indoors = Conduct operations indoors using local ventilation	Required Use: None Voluntary Use: Particulate N95 filtering face piece (dust mask) or higher.	When MSDS recommends the use of a respirator or when ventilation is limited	Change if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Spray Painting	Refer to MSDS	Mist Vapor	Refer to MSDS	Outdoors = Conduct operations in well-ventilated areas Indoors = Conduct operations indoors using local ventilation	Required Use: None Voluntary Use: P95 Organic vapor filtering facepiece	Using paint products with isocyanates without adequate ventilation.	Change after each use or if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Painting Valve Lids (<i>Lead Free Fast Dry Traffic Paint and base paint</i>)	Methanol	Mist Vapor	200ppm	Painting outdoors in well-ventilated areas	Required Use: None Voluntary Use: ½ mask APR with organic vapor cartridge	Painting indoors	Change after each use or if respirator becomes soiled or contaminated

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Job Activity	Contaminant Description	State:	Allowable Limits: PEL/TLV	“Normal Working Conditions” means the following Engineering/Administrative controls are used to minimize exposure to < PEL	Respiratory Use & Type Under “Normal Working Conditions”	Prohibited Activities To Prevent Respiratory Exposures >PEL	Respirator Change Schedule
Coal tar Mastic for Corrosion Protection	Coal Tar Pitch	Mist Vapor	0.2mg/m ³	Using this product outdoors in well- ventilated areas	Required Use: None Voluntary Use: ½ mask APR with organic vapor cartridge	Using this product indoors	Change after each use or if respirator becomes soiled or contaminated
RootX	Silica Sulfamic acid	Dust Vapor Mist	MSDS indicates none	Outdoors = Conduct operations in well- ventilated areas Indoors = Conduct operations indoors using local ventilation	Required Use: None Voluntary Use: Particulate N95 filtering face piece (dust mask) or higher.	Use of the product in unventilated, enclosed spaces.	Change if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Spraying Herbicides: Roundup or Alecto	Refer to MSDS	Mist	None established	Use in well ventilated area	Required Use: None Voluntary Use: Particulate N95 filtering face piece (dust mask) or higher.	Spraying in an enclosed area.	Change after each use or if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Sodium Hypochlorite	12 % NaOCl aqueous solution Chlorine gas Corrosive liquid	Gas Mist	0.5 ppm 2mg/m ³	Normal conditions are working outside with natural ventilation. Air monitoring data by CSRMA at worse case conditions shows exposure less than PEL. No off-gassing or fumes.	Required Use = None Voluntary Use Type: P95 Organic vapor filtering facepiece	Working with greater than 5-gallons of sodium hypochlorite exposed to the air in areas with limited ventilation, or off-gassing is occurring	Change when respirator becomes soiled, contaminated, and/or when it becomes difficult to breathe.
Vehicle exhaust	CO Particulates VOC's	Fumes	Varies	Only work on running vehicles inside the garage when the vehicle exhaust is connected to the garage local exhaust system	Required Use: None Voluntary Use: Particulate N95 filtering face piece (dust mask) or higher.	Running vehicles inside the garage for periods >5minutes without using the garage local exhaust system	Change if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.

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Job Activity	Contaminant Description	State:	Allowable Limits: PEL/TLV	“Normal Working Conditions” means the following Engineering/Administrative controls are used to minimize exposure to < PEL	Respiratory Use & Type Under “Normal Working Conditions”	Prohibited Activities To Prevent Respiratory Exposures >PEL	Respirator Change Schedule
Welding – NON stainless steel, aluminum or galvanized metal	Refer to MSDS for the welding rod/material	Fumes	Refer to MSDS	<ul style="list-style-type: none"> Weld <u>outdoors</u> in well-ventilated areas. Weld <u>indoors</u> using natural or general ventilation for short durations of <15 minutes Weld indoors using local ventilation for durations >15 minutes Normal conditions do not include welding on hazardous materials 	<p>Required Use: None</p> <p>Voluntary Use: Particulate P95 or P100 filtering face piece underneath welding hood.</p>	Welding indoors without local ventilation for longer than 15 minutes or welding involving hazardous substances (i.e. lead based paint or stainless steel), or when using rods whose MSDS recommends respirator use.	Change after each use or if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Welding – stainless steel, aluminum or galvanized metal	Refer to MSDS for the welding rod/material	Fumes and hexavalent chromium	Refer to MSDS Hexavalent chromium: 8-hr. TWA of 5 µg/m3	<ul style="list-style-type: none"> Weld <u>indoors</u> and <u>outdoors</u> in well-ventilated areas with portable ventilator in exhaust mode. 	<p>Required Use: None</p> <p>Voluntary Use: Particulate P95 or P100 filtering face piece underneath welding hood.</p>	Welding without local forced exhaust ventilation and respirator.	Change after each use or if respirator becomes soiled or contaminated, and/or when it becomes difficult to breathe.
Inert – Gas Metal- Arc Welding on stainless steel	Refer to MSDS for the welding rod/material	Fumes and hexavalent chromium	Refer to the MSDS	<ul style="list-style-type: none"> Use local exhaust 	<p>Required use: None if using local exhaust</p> <p>Voluntary use: Particulate P95 or P100 filtering face piece underneath welding hood.</p>	Required use: SCBA required if not using local exhaust.	

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**ATTACHMENT C
Inspection, Donning & Seal Checks
*For Voluntary Use Respirators***

DUST MASKS (*filtering face piece respirators*)

Inspection

Before using, check filtering face piece for holes in the filter and the condition of elastic straps and nose clip. Obtain new one if it is not in good condition.

Donning

1. Untwist head straps. Cup the facepiece in your hand with the nose contour at your fingertips allowing head straps to fall below your hand.
2. Position the facepiece under your chin with nosepiece facing up.
3. Pull bottom strap over your head and below ears, to neck. Raise top strap to crown of head. Untwist straps.
4. Place fingertips of both hands at top of metal nosepiece.
5. Mold the nose area to the shape of your nose by pushing inward while moving your fingertips down with both sides of the nosepiece. Pinching the nosepiece using one hand may cause a bad fit and result in less effective respirator performance. Use both hands.

Seal Check

1. Check seal by completely covering the front of the filtering face piece with both hands and exhale. Be careful not to disturb the position of the respirator.
2. If air leaks around nose, readjust the nosepiece as described in step 5. If air leaks around the edges of the respirator, work the straps back along the sides of your head until a proper seal is achieved.

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Filtering face piece respirators or dust masks are now classified, and NIOSH certified, by how efficiently they capture airborne particles – 95%, 99%, or 99.7% (100%) – and by how resistant they are to oil – N, R, or P.



Efficiency

The efficiency rating of a filter is based on NIOSH testing procedures that determine the filter's ability to capture particles that are 0.3 microns in size. Because particles that are 0.3 microns are the most difficult size to capture, particles both smaller and larger are captured at a higher efficiency. Most workplace aerosols (solid and liquid) are larger than 0.3 microns and therefore, the filters will perform at their certified efficiency level or better. For example, a filter or a filtering facepiece with an efficiency rating of 95% filters at least 95% of airborne particles.

Oil Resistance

N filters are not resistant to oils, R filters are somewhat resistant to oil, and P filters are oil proof. Oil resistance is important because many filters depend on an electrostatic charge on the filter fibers to trap small particles. In an oil environment, the oil neutralizes the electrostatic charge and as a result, the efficiency of the filter is sharply reduced.

Some examples of oils are hydraulic oil, lubricating oil, engine oil, corn oil, transformer oil, petroleum based cutting oil, cable oil and many others.

Nine Filter Classes		
N 95	R 95	P 95
N 99	R 99	P 99
N 100	R 100	P 100*

*P 100 filter is equivalent to a HEPA filter

Remember to:

- Check the condition of the filtering face piece before you put it on.
- Perform a seal check by covering the front of the mask with both hands and exhaling. If air leaks out around the edges, readjust straps or nosepiece
- Change your dust mask when it gets dirty, it becomes difficult to breathe, it becomes damaged, or at the end of a work shift.

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**ATTACHMENT C
Inspection, Donning & Seal Checks
*For Voluntary Use Respirators***

AIR-PURIFYING CHEMICAL CARTRIDGE RESPIRATORS

Inspection

1. Check face piece for dirt, cracks, tears, or holes.
2. Check head straps for breaks, tears, loss of elasticity, broken or malfunctioning buckles.
3. Check inhalation and exhalation valves for:
 - detergent residue, dust, or dirt on valve or valve seat.
 - cracks, tears, or distortion of valve material or valve seat.
 - missing or defective valve cover.
4. Check cartridge element for worn threads on cartridge and face piece; dents or cracks on cartridge; and that you have the right cartridge for the hazard.

Donning

1. Verify that exhalation valve flap is secured to valve seat and that the valve is free to operate.
2. Grasp the front of the facepiece with one hand and the upper plastic strap (cradle suspension) with the other hand.
3. Position the respirator on the face so that the inside portion of the face piece (containing the exhalation valve) is under the chin and the narrow portion of the face piece is over the nose.
4. Place the cradle suspension on the head so that the top plastic strap rests across the top of the head and the bottom plastic strap rests above the ears on the back of the head. Hook the bottom elastic headband Straps behind the neck and below the ears. Adjust for fit and comfort.

CAUTION: DO NOT OVER TIGHTEN. OVER TIGHTENING MAY CAUSE DISTORTION AND CAUSE LEAKGE.

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*For Voluntary Use Respirators***

Seal Check

Positive Pressure Check

Close off the exhalation valve and exhale gently into the face piece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cove before closing off the exhalation valve and then carefully replacing it after the seal check.

Negative Pressure Check

Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the face piece collapses slightly, and hold breath for ten seconds. The design of the inlet opening of cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet valve of the cartridge with a thin latex or nitrile glove. If the face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

Storage

Store the respirator where it is protected from dust, sunlight, heat, extreme cold, excessive moisture and damaging chemicals. After inspection or cleaning, store in resealable plastic bag.

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**ATTACHMENT D
Respiratory Fit Testing and Medical Evaluations Summary**

This form is intended to show, by job specification, what type of respirators employees wear (or may wear) and the associated medical evaluation and fit testing requirements.

Sections	User Type ¹	Medical Evaluations		Respiratory Fit Tests Frequency		
		Upon Hire <small>(Additional physical exams and/or exam components such as a pulmonary function test will be determined by the physician)</small>	Annual	Upon Hire	Annual	
Street and Sewer	Vol	X	X	NA	NA	
Facilities	Vol	X	X	NA	NA	
Fleet	Vol	X	X	NA	NA	
Water	Vol	X	X	NA	NA	

1. User Type Legend:

- VOL** Employees within this job specification are only allowed to wear a tight fitting face piece respirator voluntarily for the purpose of nuisance level dusts, pollens, odors, etc.
- REQ** Employees within this job specification are required to wear a Filter Face Piece Respirator (Dust Mask) for certain job tasks.
- NA** Employees within this job specification are not exposed to any airborne contaminants, including nuisance exposures such as dust, pollens, odors, etc.

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**ATTACHMENT E
CCR, Title 8, Section 5144 – Respiratory Protection**

For the complete text go to <http://www.dir.ca.gov/>

**Respiratory Protection Program
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**ATTACHMENT F
Medical Evaluation Questionnaire**

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OSHA Respirator Medical Evaluation Questionnaire

Appendix C to 1910.134

To the 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: Can you read? (circle one) Yes No

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 name: _____

3. Your age (to nearest year): _____

4. Sex (circle one): Male/Female

5. Your height: _____ ft. _____ in.

6. Your weight: _____ lbs.

7. Your job title: _____

8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): _____

9. The best time to phone you at this number: _____

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No

11. Check the type of respirator you will use (you can check more than one category):

a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. _____ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one): Yes/No

If "yes," what type(s): _____

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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 circle "yes" or "no").

1. Do you **currently** smoke tobacco, or have you smoked tobacco in the last month: Yes/No
2. Have you **ever had** any of the following conditions?
 - a. Seizures (fits): Yes/No
 - b. Diabetes (sugar disease): Yes/No
 - c. Allergic reactions that interfere with your breathing: Yes/No
 - d. Claustrophobia (fear of closed-in places): Yes/No
 - e. Trouble smelling odors: Yes/No
3. Have you **ever had** any of the following pulmonary or lung problems?
 - a. Asbestosis: Yes/No
 - b. Asthma: Yes/No
 - c. Chronic bronchitis: Yes/No
 - d. Emphysema: Yes/No
 - e. Pneumonia: Yes/No
 - f. Tuberculosis: Yes/No
 - g. Silicosis: Yes/No
 - h. Pneumothorax (collapsed lung): Yes/No
 - i. Lung cancer: Yes/No
 - j. Broken ribs: Yes/No
 - k. Any chest injuries or surgeries: Yes/No
 - l. Any other lung problem that you've been told about: Yes/No
4. Do you **currently** have any of the following symptoms of pulmonary or lung illness?
 - a. Shortness of breath: Yes/No
 - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
 - c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
 - d. Have to stop for breath when walking at your own pace on level ground: Yes/No
 - e. Shortness of breath when washing or dressing yourself: Yes/No
 - f. Shortness of breath that interferes with your job: Yes/No

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- g. Coughing that produces phlegm (thick sputum): Yes/No
 - h. Coughing that wakes you early in the morning: Yes/No
 - i. Coughing that occurs mostly when you are lying down: Yes/No
 - j. Coughing up blood in the last month: Yes/No
 - k. Wheezing: Yes/No
 - l. Wheezing that interferes with your job: Yes/No
 - m. Chest pain when you breathe deeply: Yes/No
 - n. Any other symptoms that you think may be related to lung problems: Yes/No
5. Have you **ever had** any of the following cardiovascular or heart problems?
- a. Heart attack: Yes/No
 - b. Stroke: Yes/No
 - c. Angina: Yes/No
 - d. Heart failure: Yes/No
 - e. Swelling in your legs or feet (not caused by walking): Yes/No
 - f. Heart arrhythmia (heart beating irregularly): Yes/No
 - g. High blood pressure: Yes/No
 - h. Any other heart problem that you've been told about: Yes/No
6. Have you **ever had** any of the following cardiovascular or heart symptoms?
- a. Frequent pain or tightness in your chest: Yes/No
 - b. Pain or tightness in your chest during physical activity: Yes/No
 - c. Pain or tightness in your chest that interferes with your job: Yes/No
 - d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
 - e. Heartburn or indigestion that is not related to eating: Yes/No
 - f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No
7. Do you **currently** take medication for any of the following problems?
- a. Breathing or lung problems: Yes/No
 - b. Heart trouble: Yes/No
 - c. Blood pressure: Yes/No
 - d. Seizures (fits): Yes/No
8. If you've used a respirator, have you **ever had** any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)

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- a. Eye irritation: Yes/No
- b. Skin allergies or rashes: Yes/No
- c. Anxiety: Yes/No
- d. General weakness or fatigue: Yes/No
- e. Any other problem that interferes with your use of a respirator: Yes/No

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes/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 **ever lost** vision in either eye (temporarily or permanently): Yes/No

11. Do you **currently** have any of the following vision problems?

- a. Wear contact lenses: Yes/No
- b. Wear glasses: Yes/No
- c. Color blind: Yes/No
- d. Any other eye or vision problem: Yes/No

12. Have you **ever had** an injury to your ears, including a broken ear drum: Yes/No

13. Do you **currently** have any of the following hearing problems?

- a. Difficulty hearing: Yes/No
- b. Wear a hearing aid: Yes/No
- c. Any other hearing or ear problem: Yes/No

14. Have you **ever had** a back injury: Yes/No

15. Do you **currently** have any of the following musculoskeletal problems?

- a. Weakness in any of your arms, hands, legs, or feet: Yes/No
- b. Back pain: Yes/No
- c. Difficulty fully moving your arms and legs: Yes/No
- d. Pain or stiffness when you lean forward or backward at the waist: Yes/No
- e. Difficulty fully moving your head up or down: Yes/No
- f. Difficulty fully moving your head side to side: Yes/No
- g. Difficulty bending at your knees: Yes/No
- h. Difficulty squatting to the ground: Yes/No
- i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No

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j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/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: Yes/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: Yes/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: Yes/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:

- a. Asbestos: Yes/No
- b. Silica (*e.g.*, in sandblasting): Yes/No
- c. Tungsten/cobalt (*e.g.*, grinding or welding this material): Yes/No
- d. Beryllium: Yes/No
- e. Aluminum: Yes/No
- f. Coal (for example, mining): Yes/No
- g. Iron: Yes/No
- h. Tin: Yes/No
- i. Dusty environments: Yes/No
- j. Any other hazardous exposures: Yes/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? Yes/No

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If "yes," were you exposed to biological or chemical agents (either in training or combat): Yes/No

8. Have you ever worked on a HAZMAT team? Yes/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): Yes/No

If "yes," name the medications if you know them: _____

10. Will you be using any of the following items with your respirator(s)?

- a. HEPA Filters: Yes/No
- b. Canisters (for example, gas masks): Yes/No
- c. Cartridges: Yes/No

11. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?:

- a. Escape only (no rescue): Yes/No
- b. Emergency rescue only: Yes/No
- c. Less than 5 hours **per week**: Yes/No
- d. Less than 2 hours **per day**: Yes/No
- e. 2 to 4 hours per day: Yes/No
- f. Over 4 hours per day: Yes/No

12. During the period you are using the respirator(s), is your work effort:

- a. **Light** (less than 200 kcal per hour): Yes/No

If "yes," how long does this period last during the average shift: _____hrs. _____mins.

Examples of a light work effort are **sitting** while writing, typing, drafting, or performing light assembly work; or **standing** while operating a drill press (1-3 lbs.) or controlling machines.

- b. **Moderate** (200 to 350 kcal per hour): Yes/No

If "yes," how long does this period last during the average shift: _____hrs. _____mins.

Examples of moderate work effort are **sitting** while nailing or filing; **driving** a truck or bus in urban traffic; **standing** while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; **walking** on a level surface about 2 mph or down a 5-degree grade about 3 mph; or **pushing** a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

- 3. **Heavy** (above 350 kcal per hour): Yes/No

If "yes," how long does this period last during the average shift: _____hrs. _____mins.

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Examples of heavy work are **lifting** a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; **shoveling**; **standing** while bricklaying or chipping castings; **walking** 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: Yes/No

If "yes," describe this protective clothing and/or equipment: _____

14. Will you be working under hot conditions (temperature exceeding 77 deg. F): Yes/No

15. Will you be working under humid conditions: Yes/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:

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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):

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**ATTACHMENT G
Handout for Voluntary Respirator Users**

**INFORMATION FOR EMPLOYEES USING RESPIRATORS
WHEN NOT REQUIRED TO UNDER
CAL/OSHA STANDARD 5144**

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, 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 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 designated to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors or very small solids particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

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**ATTACHMENT H
Atmospheric Sampling Results**

(Atmospheric Sampling Results Located on PW Shared Drive)

[..\.Air Sample Analysis RPP & Slica ECP](#)

**Respiratory Protection Program
Voluntary Use****ATTACHMENT I
RESPIRATOR MAINTENANCE**

The following are general procedures for cleaning respirators. The manufacturer's recommended cleaning procedures may be used provided the procedures are as effective as those below.

1. Remove filters, cartridges, or canisters. Disassemble face pieces by removing speaking diaphragms, demand (positive pressure) and pressure demand (negative pressure) valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.
2. 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.
3. Rinse components thoroughly in clean, warm (43°C/110°F maximum) preferably running water. Drain.
4. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
 - a. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliters of laundry bleach to one liter of water at 43°C/110°F or
 - b. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium iodide or potassium iodide per 100 cc of 45% alcohol) to one liter of water at 43°C/110°F, or
 - c. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
5. Rinse components thoroughly in clean, warm (43°C/110°F maximum), preferably running water. Drain. The importance of thoroughly rinsing cannot be overemphasized. Detergents or disinfectants that dry on face piece respirators may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
6. Components should be hand-dried with a clean lint-free cloth or air-dried.
7. Reassemble face piece, replacing filters, cartridges and canisters where necessary.
8. Test the respirator to ensure that all components work properly.