



**Respiratory Protection
Training November 2015**

Peter Swerzenski
Respiratory Protection Program Administrator



**Respiratory Protection (RP)
Training Outline**


- ▶ OSHA RP Standard 29 CFR 1910.134
 - OSHA Bulletin
- ▶ Purpose, responsibilities
- ▶ Respiratory hazards encountered
- ▶ Selection and use of respirators
- ▶ Limitations of respirators
- ▶ Respirator donning and user seal (fit) checks
- ▶ Fit Testing



RP Training Outline (continued)

- Emergency use procedures
- Maintenance and storage
- Fit testing

- ▶ North 5500 & 7700 Series instructions
 - Warnings
 - Assembling the respirator
 - Putting on the respirator
 - Notes
 - Face-to-face seal check



OSHA RP Standard 29 CFR 1910.134

- a) Permissible Practice
- b) Definitions
- c) Respiratory Protection Program
- d) Medical Evaluation
- e) Fit Testing
- f) Use of Respirators
- g) Maintenance & Care of Respirators

- ▶ Breathing Air Quality and Use
- ▶ Identification of Filters, Cartridges and Canisters
- ▶ Training and Information
- ▶ Program Evaluation
- ▶ Recordkeeping
- ▶ Effective Dates
- ▶ Appendices

SAISD Respiratory Protection Program

Index

- 1.0 Purpose
- 2.0 Scope and Application
- 3.0 Responsibilities
- 4.0 Program Elements
- 5.0 Program Evaluation (pg. 9)
- 6.0 Documentation (pg. 9)
- Appendix A – §1910.134 Fit Testing Procedures

Review the SAISD current program

Table 1: Voluntary and Required Respirator Use at San Antonio ISD

Respirator	Department / Shop / Process
Half-face-piece air purifying respirator (APR) with P100 filters	Asbestos team members: removing or repairing friable TSI, surfacing material or as required by the asbestos supervisor.
Half-face piece APR with organic vapor cartridges and R or P95 pre-filters or better	Mill shop: Oil-based spray painting in the mill shop paint spray booth
Half-face-piece air purifying respirator (APR) with N 95 or P100 filters	Environmental programs: oversight of mold and lead remediation activities
N or P100 Disposable Particulate Respirators	Carpenters / masons: short duration maintenance work that may generate low to moderate levels of lead dust or silica. May include removal and replacement of trim-work with LBP with low dust techniques or cutting concrete with water grinder.
N95 Filtering face piece (dust masks, particulate respirator, etc.)	All facilities services personnel: voluntary use for cleanup, minor demolition, ceiling tile removal/replacement, mold cleanup or removal (i.e., less than 25 contiguous ft ²)

North 7700 Instructions

INTRODUCTION

These instructions are for the North 5500 & 7700 Series Half Mask Air-Purifying Respirators. These air-purifying respirators consist of a facepiece assembly and a pair of replaceable air-purifying cartridges and/or filters. The facepiece, cartridges and/or filters may be sold separately.

These respirators are approved by the National Institute for Occupational Safety and Health (NIOSH) for respiratory protection against hazardous gases, vapors and/or particulates, depending on the air-purifying cartridges and/or filters used and the contaminant concentration and/or toxicity, but only if there is sufficient oxygen present in the contaminated atmosphere to support life.

TERMINOLOGY

Warnings, cautions and notes used in these instructions have the following significance:

NOTES

Procedures and techniques that are considered important enough to emphasize.


CAUTIONS

Procedures and techniques, which if not carefully followed, will result in damage to the equipment.

WARNINGS

Procedures and techniques, which if not carefully followed, will expose the user to the risk of serious injury, illness or death.


North 7700 Instructions

 **WARNINGS**

Improper Use of Your Respirator Can Be Harmful or Deadly!
For Your Safety, Read and Follow These Directives.
If You Do Not Understand Them—Ask Your Supervisor!

- This instruction sheet is for your respirator in its original condition ONLY! These instructions DO NOT APPLY if your facepiece has been converted to a powered air-purifying or supplied-air respirator. If converted, see instructions for Compact Air PAPR (P/N CA102) or Airline Accessory (P/N CF2007).
- You MUST select a respirator approved for all the contaminants and concentrations in your work area. See the NIOSH Approval Label before use. Ask your supervisor to be sure you have the correct respirator.

North 7700 Instructions

 **WARNINGS**

- NEVER use your respirator:
 - To perform or observe sand-blasting/abrasive-blasting;
 - To enter a sand-blasting/abrasive-blasting area unless air quality has been checked for contaminants;
 - To fight fires;
 - In any atmosphere with less than 19.5% oxygen at sea level;
 - In atmospheres where contaminants and/or concentrations are unknown or pose immediate danger from toxics, corrosives or asphyxiates;
 - When contaminant concentrations exceed 10 times the permissible exposure limit (PEL) set by OSHA or other government regulations;
 - To protect against particulates containing oil unless a NIOSH "R" or "P" filter is used;
 - To protect against gases or vapors without using air-purifying cartridges that have End-of-Service-Life Indicators (ESLI) or a cartridge change schedule based on service-life data; or
 - To protect against gases or vapors not adsorbed by the sorbent material, such as Methanol.
- NEVER use your respirator if you cannot achieve a good facepiece-to-face seal due to:
 - Facial hair;
 - Eyewear that interferes with facepiece-to-face seal;
 - Head or face coverings, jewelry or other accessories that interfere with sealing area; or
 - Missing teeth, dentures, facial deformities or deep scars.

North 7700 Instructions

5. IMMEDIATELY leave work area and remove the respirator if:
 - Breathing becomes difficult;
 - You become dizzy or disoriented;
 - You no longer have a good facepiece-to-face seal;
 - You smell, taste or otherwise sense contaminants; or
 - Your respirator is damaged.

6. REMEMBER:
 - Any air-purifying respirator, when properly selected and fitted, will significantly reduce, but will not completely eliminate, the breathing of contaminant(s) by the respirator wearer. When working in atmospheres containing substances which are reported to cause cancer in amounts below their permissible exposure limit, you will obtain better protection from a powered air-purifying respirator, continuous flow or positive pressure air supplied respirator, or self-contained breathing apparatus (an SCBA).
 - Your respirator will not protect exposed areas of face or body from gases, vapors or airborne particles that can irritate, burn or be absorbed through your skin—wear hand and/or body protection.

North 7700 Instructions

ASSEMBLING THE RESPIRATOR

Remove the facepiece assembly from its container and visually check the facepiece to make sure that the sealing flange is not distorted and that all components, including the exhalation valve, are in place and in good condition.

If replaceable pad-style filters are required, assemble filters securely to the cartridges or filter holders before the cartridges or filter holders are attached to the facepiece. Place the filters in the appropriate filter cover so that the outer edges of the filters are seated evenly and securely against the inner wall of the filter covers (Photo 1). With the filters seated evenly and securely, snap the cover onto the cartridge or filter holder (Photo 2).

To assemble the respirator, attach the appropriate air-purifying cartridges and/or filters onto the cartridge connectors mounted on the facepiece. Check to be sure that the cartridges and/or filters are effectively sealed against the facepiece (Photo 3).



WARNING

The NIOSH Approval and all North warranties for this respirator are nullified if cartridges and/or filters from other manufacturers are used.

If using the Backpack Adapter (North P/N BP1002), attach the backpack to the facepiece cartridge connectors, and fasten the appropriate cartridges and/or filters to the backpack mounting plate (Photo 4). Check to be sure that the cartridges and/or filters are effectively sealed against the rubber gasket attached to each back plate connector.

North 7700 Instructions

ASSEMBLING THE RESPIRATOR ENSAMBLANDO EL RESPIRADOR ASSEMBLER LE RESPIRATEUR



1



2



3



4

North 7700 Instructions

PUTTING ON THE RESPIRATOR

Only put on your respirator in an area with uncontaminated air. Visually check the respirator to make sure all major components are in place and in working condition. Verify the correct cartridges and/or filters are being used and they are securely attached to the facepiece. Use a mirror to assure the respirator is positioned correctly on your face. Remove eyewear, hard hat or other head gear before putting on the respirator. Replace after you put on the respirator.

- Adjust the respirator head straps and clips to their full outward position.
- With one hand holding the respirator, place your chin inside the chin cup and the top of the respirator over your nose (Photo 5). If using the Backpack Adapter, the breathing tubes will go over your head and rest on your shoulders.
- With the other hand, position the plastic straps so they are centered on your head (Photo 6). Remove any slack in the upper straps by pulling the two end tabs, back and toward your ears (Photo 7). Do not tighten.
- Fasten the bottom elastic straps behind your neck and under your hair. Remove any slack in the bottom straps by pulling the end tabs (Photo 8). Do not tighten.
- Tighten the upper head straps in small equal increments to ensure the top half of the respirator is tightened evenly and it is snug, comfortable and centered on your face (Photo 9).
- Tighten the lower head straps by pulling evenly on the end straps in the back of the respirator until the entire respirator is snug, comfortable and centered on your face (Photo 10).
- Pull the respirator away from your face and maneuver it to assure it's centered, comfortable and snug (Photo 11). A final small adjustment may be made, by again tightening the upper and lower straps.
- The plastic loops on the top straps slide back to hold down any loose strap material.

North 7700 Instructions

PUTTING ON THE RESPIRATOR
COLLOCANDO EL RESPIRADOR
MISE EN PLACE DU RESPIRATEUR



5



6



9



10



7



8



11



12

PUTTING ON THE RESPIRATOR
COLLOCANDO EL RESPIRADOR
MISE EN PLACE DU RESPIRATEUR

North 7700 Instructions

NOTES

The tightness of the respirator will vary depending on the cartridges and/or filters used and the user's level of activity while the respirator is in use. When using combination cartridges and/or during high levels of activity, the respirator should be reasonably tight to the face to assure it does not move during use. Be careful not to over tighten the respirator. Over tightening could distort the facepiece seal and may cause leakage.

Your supervisor or safety director should assist you to determine how tight the respirator should be on your face. Ultimately the user will have the best sense as to when the respirator needs to be adjusted and how tight a fit is needed to ensure a good face-to-facepiece seal, prior to and during use.

FACE-TO-FACEPIECE SEAL CHECK

Each time you put on the respirator, before entering an area containing hazardous atmospheres, and periodically while wearing the respirator in the contaminated area, check the effectiveness of the face-to-facepiece seal by carrying out a positive pressure seal check. Prior to this seal check, exhale quickly and vigorously to clear any obstructions within the exhalation assembly.

- Place the palm of your hand over the opening in the exhalation valve guard and exhale normally (Photo 12).
- If the facepiece bulges slightly and no air leaks between the facepiece and the face, an effective seal has been obtained.
- If air leaks out between the facepiece and the face, reseal the facepiece and/or readjust the tension of the head straps to eliminate the leakage.
- This check must be repeated until an effective seal of the facepiece-to-face is obtained. If you cannot achieve an effective seal, do not enter the contaminated area. See your Supervisor.

Fit Testing – Irritant Smoke

Requirements

- ▶ Must be clean shaven
- ▶ Don and wear the respirator for five minutes
- ▶ Perform seal checks
- ▶ Perform each exercise for one minute:
Normal breathing, deep breathing, turning head side to side, moving head up & down, talking, smile & frown, bending over, normal breathing

KEEP EYES CLOSED

Frequency

- ▶ Initially & annually
- ▶ As needed, changing conditions

Fit Testing w/ Irritant Smoke

<p>NEXTEQ LLC 8406 Benjamin Rd., Suite J Tampa, Florida 33634 USA Toll free Tel: (877)312-2333 / (813)249-5888 Toll free Fax: (877)312-2444 / (813)249-0188</p>	<p>MSDS P/N 50811320-340N Rev. E 5/2010 Revision: May 13, 2010</p>
Part I – Material Identification	
<p>Material Name: VeilFit[®] Irritant Smoke Generator (P/N 50811000-310N) Chemical Name: Stannic Chloride (CAS No. 7946-78-8, UN No. 1827) Synonyms: a) Tin tetrachloride, Tin (IV) Chloride b) Air Flow Indicator Tube c) Irritant Smoke Generator Formula: SnCl₄ Chemical Family: Metal Chloride</p>	
Part II – Ingredients & Hazards	
<p>Stannic chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCl) and tin compounds. The emitted smoke has a strong irritating odor.</p>	<p>Exposure Limits</p> <p>Tin Inorganic Compounds ACGIH – TLV: TWA 2 mg/m³ OSHA PEL: 2 mg/m³</p> <p>Hydrogen Chloride OSHA PEL: Ceiling 5 ppm ACGIH – TLV: STEL, Ceiling 2 ppm Listed in the 2004 ACGIH-TLV[®] handbook with a carcinogenicity notation of A4, which is defined as “Not classifiable as a human carcinogen”.</p>



https://www.osha.gov/SLTC/respiratoryprotection/training_videos.html



We covered:

- ▶ The OSHA Respiratory Protection Standard
 - §29 CFR 1910.134
- ▶ The SAISD "Working Draft" Respirator Program
- ▶ The North 7700 (& 5500) Respirator Model Instructions
- ▶ An overview of the Irritant Smoke Fit Test Procedure

Questions???

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

Revised By: Peter Swerzenski, Assistant Director (ADir), Environmental Programs
Revision Date: **Nov 18, 2015**

Index

1. Purpose (page 1)
 2. Scope and Application (page 2)
 3. Responsibilities (page 3)
 4. Program Elements (page 4)
 5. Program Evaluation (page 9)
 6. Documentation and Recordkeeping (page 9)
-
- Appendix A § 1910.134: Fit Testing Procedures (Mandatory) - *page 11*
 - Appendix B-1 §1910.134: User Seal Check Procedures (Mandatory) - *page 16*
 - Appendix C-2 §1910.134: Respiratory Cleaning Procedures (Mandatory) - *page 17*
 - Appendix D Sec. §1910.134: (Mandatory) Information for Employees Using Respirators when not required under the Standard - *page 18*
 - North 7700 (&5500) Series Half Mask Air-Purifying Respirator User's Instructions - *page 19*

1.0 Purpose

The San Antonio Independent School District (SAISD) has determined that the following personnel may be exposed to respiratory hazards during routine work situations:

- certain asbestos operations and maintenance (O&M) team members;
- the mill shop spray painter; and
- Environmental Programs staff personnel.

The hazards these personnel may be exposed to include:

- asbestos fibers and nuisance dust during work involving known or suspect asbestos-containing material (ACM);
- paint solvents and particulate during spray paint operations in the mill shop paint booth;
- particulates, lead and mold during the oversight of contract remediation work; and
- particulates, lead and/or silica while performing short-term (i.e., less than 15 minutes) dust generating work.

These exposures do not represent Immediately Dangerous to Life or Health (IDLH) conditions.

The purpose of this program is to ensure that SAISD Facilities Services **employees are protected from exposure to the respiratory hazards identified** in the previous paragraph. Engineering controls, such as ventilation and substitution of less toxic materials, are the first line of defense; however, engineering controls have not always been feasible for some of the operations, or have not always completely controlled the identified hazards. In these situations, respirators and other protective equipment must be used. The work processes requiring respirator use are outlined in Table 1 in the Scope and Application section of this program.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

Some employees have expressed a desire to wear respirators during certain operations that do not require respiratory protection. SAISD provides disposable particulate respirators for voluntary use. As outlined in the Scope and Application section of this program, voluntary respirator use is subject to certain requirements of this program.

2.0 Scope and Application

This program applies to all employees who are, or maybe required to wear respirators during normal work operations. The following employees are enrolled in the SAISD respirator program: the HazMat/IAQ Coordinator, Asbestos Technician, Plant Services ADir Structural, Plant Services glaziers, and the mill shop painter(s). Employees who voluntarily wear P100, R100, N100, or N95 dust masks are only required to be informed of Appendix D of this program.

Table 1: Voluntary and Required Respirator Use at San Antonio ISD Facilities Services

<i>Respirator</i>	<i>Department / Shop / Process</i>
(Minimum) half-face-piece air purifying respirator (APR) with P100 filters	Asbestos workers / supervisors removing or repairing friable TSI, surfacing material or miscellaneous material as required by an SAISD O&M project consultant.
(Minimum) half-face piece APR with organic vapor cartridges and R or P95 pre-filters	Mill shop: Oil-based spray painting in the mill shop paint spray booth
Half-face-piece air purifying respirator (APR) with N 95 or P100 filters	Environmental programs: oversight of mold and lead remediation activities
N or P100 Disposable Particulate Respirators for voluntary use when exposures are below the occupational exposure limit(s)	Carpenters / masons: short duration maintenance work that may generate low levels of lead dust or silica. May include removal and replacement of trim-work with LBP while using low dust techniques or cutting concrete with water grinder.
N95 Filtering face piece (dust masks, particulate respirator, etc.) for voluntary use when exposures are below the occupational exposure limit(s)	All facilities services personnel: voluntary use for cleanup, minor demolition, ceiling tile removal/replacement, mold cleanup or removal (i.e., less than 25 contiguous ft ²)

Employees participating in the respiratory protection program do so at no cost to them. The expense associated with training, medical evaluations and respiratory protection equipment will be borne by the district.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

3.0 Responsibilities

Program Administrator

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

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

The Program Administrator for SAISD Facilities Services is Peter Swerzenski, the ADir of Environmental Programs.

Supervisors

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

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing and annual medical evaluation.
- Ensuring the availability of appropriate respirators and accessories.
- Being aware of tasks requiring the use of respiratory protection.
- Enforcing the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- Ensuring that respirators fit well and do not cause discomfort.
- Ensuring that voluntary respirator users have a copy of (§ 1910.134) Appendix D
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding the program.

Employees

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

- **Care and maintain** their respirators as instructed, and store them in a clean sanitary location.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

- **Inform** their supervisor if the respirator **no longer fits** well, and request a new one that fits properly.
- Inform their supervisor or the Program Administrator of any **respiratory hazards** that they feel are **not adequately addressed** in the workplace and of any other concerns that they have regarding the program.

4.0 Program Elements

Selection Procedures

The Program Administrator will select respirators to be used on-site, based on the hazards to which workers are exposed. The Program Administrator will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. The hazard evaluation will include:

- 1) Identification and development of a list of hazardous substances used in the workplace, by department, or work process.
- 2) Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.
- 3) Exposure monitoring to quantify potential hazardous exposures. Monitoring will be performed by, or under the direction of an industrial hygienist.

Updating the Hazard Assessment

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

NIOSH Certification

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

Voluntary Respirator Use

SAISD Facilities Services may provide N95 filtering face piece (dust masks) at no charge to employees for voluntary use for the following work processes:

- Plant Services personnel involved with woodworking, incidental demolition and cleanup, ceiling tile removal / replacement and minor (i.e., less than 25 contiguous square feet) mold removal / cleaning.
- Custodial / operations personnel involved with landscaping and tree-trimming, ceiling tile removal / replacement, general cleanup involving significant nuisance

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

dust generation, minor (i.e., less than 25 contiguous square feet) of mold removal / cleaning.

Supervisors and/or the Program Administrator will provide employees who voluntarily choose to wear N95 "dust masks" with a copy of (§ 1910.134) Appendix D (*provided as an attachment to this program*).

Medical Evaluation

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

SAISD contracts with Texas MedClinic (an occupational health clinic) to provide:

- medical evaluations by or under the direction of a physician or other health care professional (PLHCP);
- medical evaluations using the questionnaire provided in Appendix C of the respiratory protection standard (i.e., 29 CFR 1910.134 (e)), and
- any follow-up medicals exams as deemed necessary by the PLHCP.

All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.

The Program Administrator will provide Texas MedClinic with a copy of this program, a copy of the Respiratory Protection Standard, the list of hazardous substances by work area, and, for each employee requiring evaluation: their work area or job title, proposed respirator type and weight, length of time required to wear respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.

After an employee has received clearance and begun to wear their respirator, **additional medical evaluations will be provided** under the following circumstances:

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

A list of SAISD Facilities Services employees currently included in medical surveillance is maintained by the Program Administrator. All examinations and questionnaires are to remain confidential between the employee and the physician.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

Fit Testing

Fit testing is required for SAISD Facilities Services employees wearing half-face piece air-purifying respirator (APRs). Fit testing will be performed:

- Prior to being allowed to wear any respirator with a tight fitting face piece,
- Annually,
- When there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.),
- With the make, model, and size of respirator that they will actually wear, and
- In accordance with Appendix A to § 1910.134: Fit Testing Procedures (*provided as an attachment to this program*).

Respirator Use

- Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.
- All employees shall conduct user seal checks each time that they put-on (or don) their respirator. Employees shall use either the positive and/or negative pressure check as specified in Appendix B-1 of the Respiratory Protection Standard (*provided as an attachment to this program*).
- All employees shall be permitted to leave the work area to go to a clean area to maintain his/her respirator.
- Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal.
- Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the face piece-to-face seal.

Emergency Procedures:

The following conditions have been identified as being foreseeable emergencies for the mill shop paint spray operator:

- Spill of hazardous paints / thinners during mixing or cleanup,
- Failure of the paint spray ventilation

For a major spill or leak (e.g., a gallon or more of hazardous material):

- (if feasible) quickly stop and contain the leak
- exit the area, notify adjacent workers
- notify the shop foreman and Environmental Programs

For failure of the paint spray ventilation:

- stop spray paint operations
- exit the area
- notify the shop foreman / supervisor

Note: SAISD employees are not trained as emergency responders, and are not authorized to act in such a manner.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

Respirator Malfunction

For any malfunction of an APR (e.g., such as breakthrough, face piece leakage, or improperly working valve), the respirator wearer should immediately exit the work area (spray booth, asbestos containment, etc.) inform their supervisor that the respirator no longer functions as intended, and go to a safe area to maintain the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

Air Quality - Not Applicable

Cleaning, Maintenance, Change Schedules and Storage

Cleaning

Respirators are issued for the exclusive use of an employee shall be cleaned as often as necessary.

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

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the face piece and associated parts in a mild detergent with warm water. *Do not use organic solvents.*
- Rinse completely in clean warm water.
- Wipe the respirator with disinfectant wipes to kill germs.
- Air-dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other air tight container.

Note: The supervisor should ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact the ADir Environmental Programs.

Maintenance

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

The following checklist will be used when inspecting respirators:

- Face piece: cracks, tears, or holes; facemask distortion;
- Head straps: breaks or tears, broken buckles or clasps
- Valves: residue or dirt, cracks or tears in valve material
- Filters/Cartridges: approval designation, gaskets, cracks or dents in housing, proper cartridge for hazard

Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards. Situations when this is permitted include washing their face and respirator face piece to prevent any eye or skin

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

irritation, replacing the filter or cartridge, and if they detect vapor or gas breakthrough or leakage in the face piece or if they detect any other damage to the respirator or its components.

Change Schedules

The asbestos team supervisor and workers wearing APRs with P100 filters for protection against asbestos and nuisance dusts particulates shall change the filter on their respirators when the supervisor / worker first begins to experience difficulty breathing (i.e., resistance) while using the APR.

The mill shop spray paint operator shall change out his/her organic vapor cartridge at least every 8 hours of cumulative use.

Storage

Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and will store their respirator in a plastic bag or container labeled with their name. Only his / her respirator will be stored in this labeled bag or container.

The Program Administrator will maintain at least one replacement respirators of each type in their original manufacturer's packaging in the Environmental Programs supply closet.

Defective Respirators

Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, they are to bring the defect to the attention of their supervisor. Supervisors will give all defective respirators to the Program Administrator. The Program Administrator will decide whether to:

- Temporarily take the respirator out of service until it can be repaired, or
- Perform a simple fix on the spot such as replacing a head strap or
- Dispose of the respirator due to an irreparable problem or defect.

When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service, and the employee will be given a replacement of similar make, model, and size. All tagged out respirators will be kept in the storage cabinet inside the Program Administrator's office.

Training

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

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

The training course will cover the following topics:

- the SAISD Facilities Services Respiratory Protection Program
- the OSHA Respiratory Protection Standard
- respiratory hazards encountered in the mill shop spray paint booth and during SAISD asbestos team activities
- proper selection and use of respirators
- limitations of respirators
- respirator donning and user seal (fit) checks
- fit testing
- emergency use procedures
- maintenance and storage
- medical signs and symptoms limiting the effective use of respirators

Employees will be retrained annually or as needed (e.g., if they change departments and need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test. Respirator training will be documented by the Program Administrator and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

5.0 Program Evaluation

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

Problems identified will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to Facilities Services management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

6.0 Documentation and Recordkeeping

A written copy of this program and the Respiratory Protection Standard is kept outside the Program Administrator's office and is available to all employees who wish to review it. The Program Administrator will ensure copies of the training and fit test records are retained in the Environmental Programs Department, Facilities, Planning & Construction, 1702 N. Alamo Street, Suite 307, San Antonio, Texas 78215. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.

The Program Administrator will also maintain copies of the respiratory protection records for all employees. The completed medical questionnaire and the physician's documented

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

findings are confidential and will remain at the Texas MedClinic. SAISD Environmental Programs will only retain the physician's written recommendation regarding each employee's ability to wear a respirator.

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

Part I. OSHA-Accepted Fit Test Protocols

A. Fit Testing Procedures -- General Requirements

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

1. The test subject shall be allowed to pick the most acceptable respirator from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
2. Prior to the selection process, the test subject shall be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit. A mirror shall be available to assist the subject in evaluating the fit and positioning of the respirator. This instruction may not constitute the subject's formal training on respirator use, because it is only a review.
3. The test subject shall be informed that he/she is being asked to select the respirator that provides the most acceptable fit. Each respirator represents a different size and shape, and if fitted and used properly, will provide adequate protection.
4. The test subject shall be instructed to hold each chosen face piece up to the face and eliminate those that obviously do not give an acceptable fit.
5. The more acceptable face pieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn at least five minutes to assess comfort. Assistance in assessing comfort can be given by discussing the points in the following item A.6. If the test subject is not familiar with using a particular respirator, the test subject shall be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.
6. Assessment of comfort shall include a review of the following points with the test subject and allowing the test subject adequate time to determine the comfort of the respirator:
 - (a) Position of the mask on the nose
 - (b) Room for eye protection
 - (c) Room to talk
 - (d) Position of mask on face and cheeks
7. The following criteria shall be used to help determine the adequacy of the respirator fit:
 - (a) Chin properly placed;
 - (b) Adequate strap tension, not overly tightened;
 - (c) Fit across nose bridge;
 - (d) Respirator of proper size to span distance from nose to chin;

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

(e) Tendency of respirator to slip;

(f) Self-observation in mirror to evaluate fit and respirator position.

8. The test subject shall conduct a user seal check, either the negative and positive pressure seal checks described in Appendix B-1 of this section or those recommended by the respirator manufacturer which provide equivalent protection to the procedures in Appendix B-1. Before conducting the negative and positive pressure checks, the subject shall be told to seat the mask on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another face piece shall be selected and retested if the test subject fails the user seal check tests.

9. The test shall not be conducted if there is any hair growth between the skin and the face piece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit shall be altered or removed.

10. If a test subject exhibits difficulty in breathing during the tests, she or he shall be referred to a physician or other licensed health care professional, as appropriate, to determine whether the test subject can wear a respirator while performing her or his duties.

11. If the employee finds the fit of the respirator unacceptable, the test subject shall be given the opportunity to select a different respirator and to be retested.

12. Exercise regimen. Prior to the commencement of the fit test, the test subject shall be given a description of the fit test and the test subject's responsibilities during the test procedure. The description of the process shall include a description of the test exercises that the subject will be performing. The respirator to be tested shall be worn for at least 5 minutes before the start of the fit test.

13. The fit test shall be performed while the test subject is wearing any applicable safety equipment that may be worn during actual respirator use which could interfere with respirator fit.

14. Test Exercises.

(a) Employers must perform the following test exercises for all fit testing methods prescribed in this appendix, except for the CNP quantitative fit testing protocol and the CNP REDON quantitative fit testing protocol. For these two protocols, employers must ensure that the test subjects (*i.e.*, employees) perform the exercise procedure specified in Part I.C.4(b) of this appendix for the CNP quantitative fit testing protocol, or the exercise procedure described in Part I.C.5(b) of this appendix for the CNP REDON quantitative fit-testing protocol. For the remaining fit testing methods, employers must ensure that employees perform the test exercises in the appropriate test environment in the following manner:

(1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

(2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.

(3) Turning head side to side. Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.

(4) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).

(5) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.

Rainbow Passage

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

(6) Grimace. The test subject shall grimace by smiling or frowning. (This applies only to QNFT testing; it is not performed for QLFT)

(7) Bending over. The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.

(8) Normal breathing. Same as exercise (1).

(b) Each test exercise shall be performed for one minute except for the grimace exercise which shall be performed for 15 seconds. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

B. Qualitative Fit Test (QLFT) Protocols

1. General

(a) The employer shall ensure that persons administering QLFT are able to prepare test solutions, calibrate equipment and perform tests properly, recognize invalid tests, and ensure that test equipment is in proper working order.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

(b) The employer shall ensure that QLFT equipment is kept clean and well maintained so as to operate within the parameters for which it was designed.

.....
5. Irritant Smoke (Stannic Chloride) Protocol

This qualitative fit test uses a person's response to the irritating chemicals released in the "smoke" produced by a stannic chloride ventilation smoke tube to detect leakage into the respirator.

(a) General Requirements and Precautions

(1) The respirator to be tested shall be equipped with high efficiency particulate air (HEPA) or P100 series filter(s).

(2) Only stannic chloride smoke tubes shall be used for this protocol.

(3) No form of test enclosure or hood for the test subject shall be used.

(4) The smoke can be irritating to the eyes, lungs, and nasal passages. The test conductor shall take precautions to minimize the test subject's exposure to irritant smoke. Sensitivity varies, and certain individuals may respond to a greater degree to irritant smoke. Care shall be taken when performing the sensitivity screening checks that determine whether the test subject can detect irritant smoke to use only the minimum amount of smoke necessary to elicit a response from the test subject.

(5) The fit test shall be performed in an area with adequate ventilation to prevent exposure of the person conducting the fit test or the build-up of irritant smoke in the general atmosphere.

(b) Sensitivity Screening Check

The person to be tested must demonstrate his or her ability to detect a weak concentration of the irritant smoke.

(1) The test operator shall break both ends of a ventilation smoke tube containing stannic chloride, and attach one end of the smoke tube to a low flow air pump set to deliver 200 milliliters per minute, or an aspirator squeeze bulb. The test operator shall cover the other end of the smoke tube with a short piece of tubing to prevent potential injury from the jagged end of the smoke tube.

(2) The test operator shall advise the test subject that the smoke can be irritating to the eyes, lungs, and nasal passages and instruct the subject to keep his/her eyes closed while the test is performed.

(3) The test subject shall be allowed to smell a weak concentration of the irritant smoke before the respirator is donned to become familiar with its irritating properties and to determine if he/she can detect the irritating properties of the smoke. The test operator shall carefully direct a small amount of the irritant smoke in the test subject's direction to determine that he/she can detect it.

(c) Irritant Smoke Fit Test Procedure

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

- (1) The person being fit tested shall don the respirator without assistance, and perform the required user seal check(s).
- (2) The test subject shall be instructed to keep his/her eyes closed.
- (3) The test operator shall direct the stream of irritant smoke from the smoke tube toward the face seal area of the test subject, using the low flow pump or the squeeze bulb. The test operator shall begin at least 12 inches from the face piece and move the smoke stream around the whole perimeter of the mask. The operator shall gradually make two more passes around the perimeter of the mask, moving to within six inches of the respirator.
- (4) If the person being tested has not had an involuntary response and/or detected the irritant smoke, proceed with the test exercises.
- (5) The exercises identified in section I.A. 14. of this appendix shall be performed by the test subject while the respirator seal is being continually challenged by the smoke, directed around the perimeter of the respirator at a distance of six inches.
- (6) If the person being fit tested reports detecting the irritant smoke at any time, the test is failed. The person being retested must repeat the entire sensitivity check and fit test procedure.
- (7) Each test subject passing the irritant smoke test without evidence of a response (involuntary cough, irritation) shall be given a second sensitivity screening check, with the smoke from the same smoke tube used during the fit test, once the respirator has been removed, to determine whether he/she still reacts to the smoke. Failure to evoke a response shall void the fit test.
- (8) If a response is produced during this second sensitivity check, then the fit test is passed.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

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

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

I. Face piece Positive and/or Negative Pressure Checks

A. *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 cover before closing off the exhalation valve and then carefully replacing it after the test.

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

II. Manufacturer's Recommended User Seal Check Procedures

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

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

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

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

I. Procedures for Cleaning Respirators

A. Remove filters, cartridges, or canisters. Disassemble face pieces by removing speaking diaphragms, demand and pressure- demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

B. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.

C. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.

D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:

1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
2. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
3. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

E. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on face pieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

F. Components should be hand-dried with a clean lint-free cloth or air-dried.

G. Reassemble face piece, replacing filters, cartridges, and canisters where necessary.

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

Appendix D to Sec. 1910.134 (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 for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

North 7700 Instructions

INTRODUCTION

These instructions are for the North 5500 & 7700 Series Half Mask Air-Purifying Respirators. These air-purifying respirators consist of a facepiece assembly and a pair of replaceable air-purifying cartridges and/or filters. The facepiece, cartridges and/or filters may be sold separately.

These respirators are approved by the National Institute for Occupational Safety and Health (NIOSH) for respiratory protection against hazardous gases, vapors and/or particulates, depending on the air-purifying cartridges and/or filters used and the contaminant concentration and/or toxicity; but only if there is sufficient oxygen present in the contaminated atmosphere to support life.

TERMINOLOGY

Warnings, cautions and notes used in these instructions have the following significance:

NOTES

Procedures and techniques that are considered important enough to emphasize.

CAUTIONS

Procedures and techniques, which if not carefully followed, will result in damage to the equipment.

WARNINGS

Procedures and techniques, which if not carefully followed, will expose the user to the risk of serious injury, illness or death.

 **WARNINGS**

Improper Use of Your Respirator Can Be Harmful or Deadly!
For Your Safety, Read and Follow These Directives,
If You Do Not Understand Them—Ask Your Supervisor!

1. This instruction sheet is for your respirator in its original condition **ONLY!** These instructions **DO NOT APPLY** if your facepiece has been converted to a powered air-purifying or supplied-air respirator. If converted, see instructions for Compact Air PAPR (P/N CA102) or Airline Accessory (P/N CF2007).
2. You **MUST** select a respirator approved for **all** the contaminants and concentrations in your work area. See the NIOSH Approval Label before use. Ask your supervisor to be sure you have the correct respirator.

 **WARNINGS**

3. NEVER use your respirator:
 - To perform or observe sand-blasting/abrasive-blasting;
 - To enter a sand-blasting/abrasive-blasting area unless air quality has been checked for contaminants;
 - To fight fires;
 - In any atmosphere with less than 19.5% oxygen at sea level;
 - In atmospheres where contaminants and/or concentrations are unknown or pose immediate danger from toxics, corrosives or asphyxiates;
 - When contaminant concentrations exceed 10 times the permissible exposure limit (PEL) set by OSHA or other government regulations;
 - To protect against particulates containing oil unless a NIOSH “R” or “P” filter is used;
 - To protect against gases or vapors without using air-purifying cartridges that have End-of-Service-Life-Indicators (ESLI) or a cartridge change schedule based on service-life data; or
 - To protect against gases or vapors not adsorbed by the sorbent material, such as Methanol.

4. NEVER use your respirator if you cannot achieve a good facepiece-to-face seal due to:
 - Facial hair;
 - Eyewear that interferes with facepiece-to-face seal;
 - Head or face coverings, jewelry or other accessories that interfere with sealing area; or
 - Missing teeth, dentures, facial deformities or deep scars.

5. IMMEDIATELY leave work area and remove the respirator if:
 - Breathing becomes difficult;
 - You become dizzy or disoriented;
 - You no longer have a good facepiece-to-face seal;
 - You smell, taste or otherwise sense contaminants; or
 - Your respirator is damaged.

6. REMEMBER:
 - Any air-purifying respirator, when properly selected and fitted, will significantly reduce, but will not completely eliminate, the breathing of contaminant(s) by the respirator wearer. When working in atmospheres containing substances which are reported to cause cancer in amounts below their permissible exposure limit, you will obtain better protection from a powered air-purifying respirator, continuous flow or positive pressure air supplied respirator, or self-contained breathing apparatus (an SCBA).
 - Your respirator will not protect exposed areas of face or body from gases, vapors or airborne particles that can irritate, burn or be absorbed through your skin—wear hand and/or body protection.

ASSEMBLING THE RESPIRATOR

Remove the facepiece assembly from its container and visually check the facepiece to make sure that the sealing flange is not distorted and that **all** components, including the exhalation valve, are in place and in good condition.

If replaceable pad-style filters are required, assemble filters securely to the cartridges or filter holders before the cartridges or filter holders are attached to the facepiece. Place the filters in the appropriate filter cover so that the outer edges of the filters are seated evenly and securely against the inner wall of the filter covers (Photo 1). With the filters seated evenly and securely, snap the cover onto the cartridge or filter holder (Photo 2)

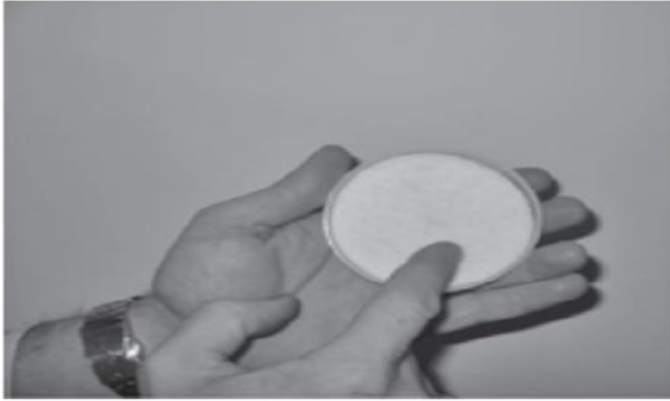
To assemble the respirator, attach the appropriate air-purifying cartridges and/or filters onto the cartridge connectors mounted on the facepiece. Check to be sure that the cartridges and/or filters are effectively sealed against the facepiece (Photo 3).



The NIOSH Approval and all North warranties for this respirator are nullified if cartridges and/or filters from other manufacturers are used.

If using the Backpack Adapter (North P/N BP1002), attach the backpack to the facepiece cartridge connectors, and fasten the appropriate cartridges and/or filters to the backpack mounting plate (Photo 4). Check to be sure that the cartridges and/or filters are effectively sealed against the rubber gasket attached to each back plate connector.

**ASSEMBLING THE RESPIRATOR
ENSAMBLANDO EL RESPIRADOR
ASSEMBLER LE RESPIRATEUR**



1



2



3



4

PUTTING ON THE RESPIRATOR

Only put on your respirator in an area with uncontaminated air.

Visually check the respirator to make sure all major components are in place and in working condition. Verify the correct cartridges and/or filters are being used and they are securely attached to the facepiece. Use a mirror to assure the respirator is positioned correctly on your face. Remove eyewear, hard hat or other head gear before putting on the respirator. Replace after you put on the respirator.

- Adjust the respirator head straps and clips to their full outward position.
- With one hand holding the respirator, place your chin inside the chin cup and the top of the respirator over your nose (Photo 5). If using the Backpack Adapter, the breathing tubes will go over your head and rest on your shoulders.
- With the other hand, position the plastic straps so they are centered on your head (Photo 6). Remove any slack in the upper straps by pulling the two end tabs, back and toward your ears (Photo 7). Do not tighten.
- Fasten the bottom elastic straps behind your neck and under your hair. Remove any slack in the bottom straps by pulling the end tabs (Photo 8). Do not tighten.
- Tighten the upper head straps in small equal increments to ensure the top half of the respirator is tightened evenly and it is snug, comfortable and centered on your face (Photo 9).
- Tighten the lower head straps by pulling evenly on the end straps in the back of the respirator until the entire respirator is snug, comfortable and centered on your face (Photo 10).
- Pull the respirator away from your face and maneuver it to assure it's centered, comfortable and snug (Photo 11). A final small adjustment may be made, by again tightening the upper and lower straps.
- The plastic loops on the top straps slide back to hold down any loose strap material.

San Antonio Independent School District
2015 Respiratory Protection Program Working Draft

**PUTTING ON THE RESPIRATOR
COLOCANDO EL RESPIRADOR
MISE EN PLACE DU RESPIRATEUR**

**PUTTING ON THE RESPIRATOR
COLOCANDO EL RESPIRADOR
MISE EN PLACE DU RESPIRATEUR**



5



6



9



10



7



8



11



12

NOTES

The tightness of the respirator will vary depending on the cartridges and/or filters used and the user's level of activity while the respirator is in use. When using combination cartridges and/or during high levels of activity, the respirator should be reasonably tight to the face to assure it does not move during use. Be careful not to over tighten the respirator. Over tightening could distort the facepiece seal and may cause leakage.

Your supervisor or safety director should assist you to determine how tight the respirator should be on your face. Ultimately the user will have the best sense as to when the respirator needs to be adjusted and how tight a fit is needed to ensure a good face-to-facepiece seal, prior to and during use.

FACE-TO-FACEPIECE SEAL CHECK

Each time you put on the respirator, before entering an area containing hazardous atmospheres, and periodically while wearing the respirator in the contaminated area, check the effectiveness of the face-to-facepiece seal by carrying out a positive pressure seal check. Prior to this seal check, exhale quickly and vigorously to clear any obstructions within the exhalation assembly.

- Place the palm of your hand over the opening in the exhalation valve guard and exhale normally (Photo 12).
- If the facepiece bulges slightly and no air leaks between the facepiece and the face, an effective seal has been obtained
- If air leaks out between the facepiece and the face, reseal the facepiece and/or readjust the tension of the head straps to eliminate the leakage.
- This check must be repeated until an effective seal of the facepiece-to-face is obtained. If you cannot achieve an effective seal, do not enter the contaminated area. See your Supervisor.