Onondaga Central School District

Respiratory Protection Program

Purpose/Scope: Respiratory Protection

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Distribution List:

Business Administrator
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Appendices

I. INTRODUCTION

In the control of those occupational diseases caused by breathing air contaminated with hazardous particulates, gases or aerosols, the primary objective is to prevent harmful exposures. This is accomplished as far as feasible by accepted engineering control measures (for example: general and local ventilation, enclosure or isolation, and substitution of less hazardous processes or materials). When effective engineering controls are not feasible, or while they are being initiated, appropriate respirators may be required. As such it is the purpose of this program to protect district employees from respiratory hazards. This program has been developed from various regulations including, but not limited to:

OSHA 1910.134 Respiratory Protection, ANSI Z88-1992 Respiratory Protection
OSHA 1910.1001 Asbestos Standards for General Industry
OSHA 1926.1101 (formerly 1926.58) Asbestos Standards for the Construction Industry

II. PURPOSE AND SCOPE

The practices and procedures described herein constitute the program under which respirators are to be used by District employees. The various types of respirators are described in detail within Appendix A, "Respiratory Protection Equipment". When respirators are issued by the district for the purposes of protecting an employee from a potential, or known airborne hazard, the contents of this Program shall be applied for the individual(s).

If a dust mask (filtering facepiece type respirator) is provided by the district for voluntary use in situations where the mask is used for nuisance exposures or for comfort purposes, then the district is exempt from the requirements of this Program. However, the individual must not use the respirator in hazardous atmospheres or when exposures may reach or exceed any permissible exposure limit. The employee must be provided a copy of Appendix D, "Information for Employees Using Respirators When Not Required Under the Standard", informed of the limits of protection for the respirator and be given the proper fitting procedures of the device.

III. RESPONSIBILITY

A. Supervisory Personnel are responsible for:
   1. Evaluating hazards in the workplace to determine if respirators are needed.
   2. Providing appropriate respirators according to the hazard.
   3. Providing periodic surveillance of work area conditions while respirators are in use.
   4. Implementing training and instruction programs (see Section VIII).
   5. Administering and periodically evaluating the respirator program.
   6. Ensuring that respirators and filters are available as needed.
   7. Ensuring that employees wear appropriate respirators/filters.
   8. The inspection of respirators on a regular schedule (see Section VII).
   9. The maintenance and repair of respirators as well as the cleaning and disinfection of them prior to issuance.
   10. Ensuring that employees are medically evaluated as to their ability to wear a respirator before a respirator is issued (see Section IV).
   11. Ensuring that periodic fit tests are provided for respirator wearers (see Section V).

III. RESPONSIBILITY – continued

B. The employee is responsible for:

1. Wearing respirator when required or upon working in locations requiring respirator use.
2. Utilizing respirators in accordance with instructions and training.
3. The care, cleaning, disinfection, and storage of assigned respirator.
4. Not abusing or causing damage to the respirator.
5. Reporting any change in his/her medical status that may impact the ability to wear a respirator safely.

C. The Onondaga-Cortland-Madison BOCES Health/Safety and Risk Management Service is responsible for providing:

1. Technical assistance in determining the evaluation of hazards in the workplace and in the selection of appropriate respirator types.
2. Educational materials to be used in employee training.

IV. MEDICAL EVALUATIONS

A medical evaluation must be provided to all respirator wearers **before** a respirator is issued. Medical evaluations must be performed by a Physician or other Licensed Health Care Professional (PLHCP) for the purpose of providing an employee clearance to wear a respirator. The scope and frequency of such evaluations depend on the intended use of the respirator as follows:

A. Respirator Use: Non-Asbestos Applications

Each employee must receive medical evaluations as to his/her ability to wear a respirator.

The employer must provide the PLHCP a copy of this Respiratory Protection Program and a description of any personal protective and respiratory equipment to be used and other information as specified in 1910.134 (e)(5).

Note: Use the medical questionnaire contained in Appendix C of this Plan or Appendix C of 29 CFR 1910.134 (or similar questionnaire that obtains the same information), or an initial medical examination that obtains the same information.

The medical status of the employee should be reviewed <u>periodically, i.e. annually</u> as detailed in 1910.134 (e)(7).

IV. MEDICAL EVALUATIONS - continued

B. Respirator Use: Asbestos Applications

Each employee must receive medical evaluations as to his/her ability to wear a respirator. In addition to respiratory clearance, employees performing asbestos related activities require a more extensive asbestos physical according to the OSHA Construction Standard 1926.1101 (m) and the OSHA General Industry Standard 1910.1001 (l).

Notes:

1. Both the Construction and General Industry Standards for Asbestos require the same extensive medical examination.

2. Use the "Initial Medical Questionnaire", contained in Appendix D, Part 1 of either Asbestos Standard, for all new hires who will be covered by the medical surveillance requirements for asbestos activities. Use the abbreviated "Periodic Medical Questionnaire", Appendix D, Part 2 of either Asbestos Standard, for subsequent annual evaluations (or similar questionnaires that obtain the same information).

A medical examination and evaluation of the employee must be conducted annually under both the 1926 Construction, and 1910 General Industry Standards. The employer must also make available, a medical examination within thirty days before or after the date of termination of employment.

The employer must provide the following to the Physician or other Licensed Health Care Professional (PLHCP):

1. A copy of OSHA 1910.1001 and 1910.1001 Appendix D and E, 1926.1101 and 1926.1101 Appendices D, E and I.
2. A description of the affected employee's duties as they relate to asbestos.
3. The employee's representative exposure level or anticipated exposure level.
4. Upon written approval of the employee, information from previous medical examinations of the affected employee that is not otherwise available to the examining physician.
5. A description of any personal protective and respiratory equipment to be used and other information as specified in 1910.134 (e)(5).

A copy of the medical clearance from the physician, as outlined above, must be maintained in a confidential medical file by the district.

V. RESPIRATOR SELECTION AND FIT TESTING

A. Selection of Appropriate Respirator

Respirators are selected by the employee. The choice of a respirator is based on the physical, chemical, and physiological properties of the air contaminant and on the concentration likely to be encountered. The quality of fit and the nature of the work being done also affect the choice of respirators. The capability of the respirators chosen is determined from appropriate governmental approvals (NIOSH/MSHA), manufacturer's tests and district experience with the respirators.

The selection of a respirator requires a knowledge and consideration of the following:

1. The chemical, physical, and toxicological properties of the contaminant.
2. The methods and procedures to measure or quantify the contaminant.
3. The effect of secondary contaminants that may be formed in the process.
4. The hazards inherent to the contaminant including the acute and chronic health effects produced upon exposure.
5. The nature of the duties to be performed by the wearer.
6. An understanding of the limitations, advantages and disadvantages of the various types of respiratory protective equipment. For more information, see Appendix A (Respiratory Protection Equipment).
7. Location of hazardous area, time to be spent in area and type of activity to be performed in area.

V. RESPIRATOR SELECTION AND FIT TESTING - continued

B. Selection of Appropriate Size

At the time of respirator assignment, all employees will be instructed and trained in the proper use of their respirator. To ensure the respirator issued to the employee exhibits a proper fit, the following steps in accordance with OSHA regulation 1910.134 (29 CFR 1926.1101 and 1910.1001 for asbestos applications) and ANSI Z88.2-1992 shall be undertaken:

1. The employee shall be allowed to pick the most comfortable respirator from a selection of respirators of at least five (5) different sizes from at least two (2) different manufacturers.
2. The selection process shall be conducted in a different area than where the fit test is performed. This is to prevent odor fatigue. The subject shall be shown how to put on the respirator, how to position the respirator, how to set strap tension and how to determine a comfortable fit.
3. If the subject cannot obtain a good fit with the half-mask facepieces available, then the subject will begin trying other respirators.
4. Once the more comfortable facepieces are noted, the most comfortable mask is donned and worn at least five minutes to assess the fit. Any adjustments shall be performed by the test subject without assistance.
5. The following points are reviewed with the subject to determine the comfort of the mask:
   a. positioning of mask on nose;
   b. room for eye protection, if used;
   c. room to talk;
   d. positioning of mask on cheeks and face.

   Also, the following criteria shall be used to determine the adequacy of the respirator:
   a. chin properly matched;
   b. strap tension;
   c. fit across bridge of the nose;
   d. tendency to slip;
   e. sufficient distance from nose to chin.

V. RESPIRATOR SELECTION AND FIT TESTING - continued

C. Fit Checks

The test subject shall then conduct the negative and positive pressure fit checks of the selected respirator.

1. Positive Pressure Fit Check
   This test is conducted by closing off the exhalation valve of the respirator and gently exhaling into the facepiece. If the facepiece bulges slightly and no evidence of air leaks between the facepiece and the subject's face is detected, a good seal has been obtained.

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

An employee must perform both the positive and negative pressure fit checks every time he/she dons a negative pressure respirator.

D. Fit Tests

Respirator fit tests shall be conducted for each wearer of a respirator at least once every 12 months.

Qualitative fit tests use an agent, such as irritant smok, or saccharin solution, to evaluate the effectiveness of a respirator fit. The wearer's senses of smell or taste are used to determine the leakage through the facepiece from the test atmosphere. See Appendix H (Qualitative Respirator Fit Testing Procedure) of this Plan and Appendix A to § 1910.134 "Fit Testing Procedures" for detailed instructions.

Quantitative tests are performed through the use of sensitive electronic instruments which calculate differences in air particulate count inside and outside the respirator.

VI. DISTRIBUTION

A list of employees covered under this program and the type of respirator assigned to the individual shall be maintained. See Appendix E (Employees Authorized to Use/Wear Respirators).

VII. INSPECTION AND MAINTENANCE

Respirators shall be properly maintained to retain their original effectiveness by: periodic inspection, repair, cleaning, and proper use & storage.

A. Inspection

1. All respirators shall be inspected routinely by the user before and after each use and after each cleaning, to check the condition of the facepiece, headbands, valves and hoses, canister, filter or cartridge fit. All head straps or head harnesses shall be checked for breaks, loss of elasticity as well as broken or malfunctioning buckles.
2. Inhalation and exhalation valves shall be examined for foreign matter, cracks, tears, and distortion. The respirator shall be checked for missing or improperly placed valve covers. Respirators must never be worn if valves are missing!
3. All respirators shall be inspected at regular intervals by the employee.

B. Maintenance

Respirators which do not pass inspection must be replaced or repaired immediately. Repair of the respirator by the user is limited to changing canisters or cartridge filters. All other replacements or repairs must be performed by a competent person or the manufacturer of the respirator. No attempt shall be made to replace components, or make adjustments, modifications or repairs beyond the manufacturer's recommendations.

VII. INSPECTION AND MAINTENANCE - *continued*

C. Cleaning

Individually assigned respirators shall be cleaned and disinfected after each use. Respirators not individually assigned and those for emergency use must be cleaned and disinfected after each use.

The following procedure is used for cleaning and disinfecting respirators:

1. Filters, cartridges, or canisters are removed before washing the respirator and discarded as necessary. Filer cartridges can be re-used except those used during asbestos removal. These filters are to be discarded after worker has showered.
2. Respirators must be disinfected with a respirator wipe after each use, except those respirators used during asbestos operations. These respirators shall be washed under a shower upon exiting the work area and then disinfected with a respirator wipe.
3. Respirators shall be washed, dried, and stored in a clean area.

D. Storage

After inspection, cleaning and necessary repairs, respirators are placed in plastic ziplock bags to protect against dust, sunlight, heat, extreme heat or cold, excessive moisture, and/or damaging chemicals. They shall then be stored in a sanitary location.

VIII. TRAINING

Every employee who wears a respirator must be trained in the proper use of that respirator. The employee and his/her supervisor must receive training which includes the following:

A. Description of the respirators.
B. Intended use and limitations of the respirator if applicable.
C. Proper wearing, adjustment, and daily fit checks.
D. Duration of use and storage methods.
E. Inspection and maintenance procedures.

Record of respirator training must be documented, and the employee must sign a statement acknowledging such training. This training shall be repeated as necessary to ensure that employees remain familiar with the proper use of respiratory protection.

The training program shall be evaluated at least annually by the immediate supervisor to determine its continued effectiveness.

IX. RECORDS

The following records shall be maintained by the District.

A. The names of employees authorized to use respirators and the type of respirator assigned to them. See Appendix E (Employees Authorized to Use/Wear Respirators).

B. A record of employee training and fit tests.

C. Medical approval to wear a respirator. See Appendix F (Respiratory Protection Surveillance Record). Written clearance or approval to wear a respirator, from the physician or Licensed Healthcare Producer must be maintained in the district files for length of employment plus 30 years.

D. Surveillance of work area conditions and degree of employee exposure, including air monitoring records where performed.

APPENDIX A

RESPIRATORY PROTECTION EQUIPMENT

For adequate protection against the many conditions, which may be encountered at the job site, many types of respiratory protective devices are being used. Each has a particular application and limitations from the viewpoint of protection as well as advantages and disadvantages from the viewpoint of operational procedures and maintenance.

A respiratory protective device or respirator is used to protect the wearer from the inhalation of harmful atmospheres. The protection required may range from conditions which are mainly a nuisance, as from odor or irritations, to those which are immediately dangerous to life. The hazard may be due to one or more toxic contaminants or to an atmosphere significantly deficient in oxygen. The contaminants may be in the gaseous or particulate state or a combination of both. Protection may be needed for only minutes, as in rescue operations, or for hours, as in routine use.

Respiratory protective devices are grouped broadly according to their mode of function. The basic classifications are:

A. **Air-Purifying Respirators** - respirators using a filter to clean (purify) the air that's in the workplace. This type of respirator must never be used in an oxygen deficient work area.

1. **Half-Mask, Negative Pressure**: Protection Factor = 10X PEL
   This respirator relies on the wearer to create a negative pressure inside the facepiece upon each inhalation. The negative pressure draws air through the filters and into the inlet valves inside the facepiece. The facepiece must FIT perfectly on the nose, cheeks and chin. If the respirator is not properly fit tested or if the user is not clean shaven it will leak around the edges and draw unfiltered air into the mask.

2. **Full-Face, Negative Pressure**: Protection Factor (PF) = 50X PEL
   This respirator is similar to the half-face in every respect except that the whole face is covered. This respirator must also be fit tested. Since the side bars of eyeglasses can break the seal of the mask a spectacle kit or contact lenses should be considered.

3. **Powered Air-Purifying Respirators (PAPR)**: PF = 100X PEL
   This respirator uses an air pump to pull air through the filters and can be located on a belt or on the facepiece itself. The air coming into the mask through the air hose pushes air and contaminants away from the sides of the mask. The air pump creates a positive pressure inside the mask. If the batteries are low or the pump is not working, the PAPR is no better than a full-face negative pressure respirator. This respirator should also be fit tested. If the pump fails or you breathe very hard a negative pressure can be formed inside the mask and contaminants drawn in through any leaks around the facepiece.

APPENDIX A - *continued*

RESPIRATORY PROTECTION EQUIPMENT - *continued*

B. **Air-Supplied Respirators** - respirators that pump clean air from outside the work area, through a hose, to the mask.

1. **Type C Continuous Flow Air Supplied Respirator**: PF = 100X PEL
   Fresh air is pumped into the respirator through a hose from outside of the work area. The air comes from an air tank or a compressor. Type C respirators can be used in oxygen deficient work areas or areas with very high contaminant concentrations. All type C respirators are positive pressure units which pushes air and contaminants outward from the sides of the masks. This type of respirator provides a continuous flow of air regardless of the breathing rate and thus could be "overbreathed" creating a temporary negative pressure inside the mask.

   The hose attached to the mask could be a trip hazard and may require decontamination upon exiting the work area. If the compressor fails the respirator should be equipped to serve as a negative pressure or SCBA (see below). The compressor must have a special filter, Carbon Monoxide alarm, moisture trap and provide air containing a specific range or percentage of Oxygen. All compressors used to supply type C respirators must provide "Grade D" air. All users must be trained in the use of the system, and a competent operator must oversee its operation.

2. **Type C Pressure-Demand Air Supplied Respirator**: PF = 1,000X PEL
   This respirator is identical to the continuous flow type above except for a valve which provides additional air as the user breathes more. As the wearer breathes harder, more air comes in through the supply hose.

3. **Self-Contained Breathing Apparatus (SCBA):** PF = usually 100X PEL
   This respirator is usually set up with an air tank which is worn on the users back to supply fresh air. SCBAs usually function as a continuous flow, air supplied type respirator but sometimes can be of the pressure demand type. This respirator can be easier to operate with no inconvenient air hoses or compressors. However, they can be uncomfortable and bulky with the air tank on the wearer's back. Since the air tank provides less than an hours worth of air, normally about 30 minutes, this type of respirator may not be suited for lengthier tasks. The SCBA should be equipped to serve as a negative pressure respirator in the event that the air tank is exhausted.

C. **Other Respirators**

1. **Dust Masks**: PF = Zero
   Dust masks should never be used in hazardous atmospheres. A dust mask is only suited for work areas with nuisance dust such as household dust or wood dust. They do not provide protection against hazardous fibers such as asbestos or hazardous gases such as solvent fumes.

APPENDIX A - *continued*

RESPIRATORY PROTECTION EQUIPMENT – *continued*

C. **Other Respirators** - continued

2. **Disposable One-Use Respirators**: There are many different types of disposables. Some cannot be fit tested, and thus do not provide a protection factor for airborne hazards. Others, including older gas mask respirators, are equipped with a specific type of filter designed for a specific application.

D. **Respirator Filters**

1. **NIOSH-Approved Particulate Filters (Air-Purifying Respirators)**

A particulate or "mechanical" filter cartridge provides protection against particulate matter such as dusts, mists or metal fumes. Particulate matter is physically trapped within the fibrous material of the filter. In addition, the wool/felt filter material possesses an electrostatic charge that increases filter efficiency by electrostatically attracting the particles to the filter medium. Particulate filters can be used more than once and actually become more efficient as they are used. However, they should be changed as soon as a noticeable change in breathing resistance from the filter occurs. This type of filter cartridge does not provide protection against gases and vapors.

On July 10, 1995, 30 CFR Part 11 certification procedures were replaced by 42 CFR Part 84 procedures. Under the old 30 CFR Part 11 approval system, manufacturers were required to mark cartridges and filters with an abbreviated label that included a NIOSH/MSHA approval number (“TC number”). Under the revised 40 CFR Part 84 approval system, cartridges and filters are no longer marked with a “TC number”. Instead, they are marked with “NIOSH”, the manufacturer’s name and part number, and an abbreviation to indicate the cartridge (e.g., OV, CL) or filter (e.g., N-95, P-100) type.

The revised regulation, Part 84, classifies particulate filters by efficiency and performance characteristics against non-oil and oil-containing atmospheres. There are nine categories of particulate filters, of varying sizes and styles, for use within the family of air-purifying (filtering) respirators.

Respirators using filtration can vary from the disposable particulate respirator to the Powered Air Purifying Respirator (PAPR). Filtering, or air-purifying, respirators all basically operate the same as they protect you by filtering particles out of the air you breathe. Workers should only select respirators that are NIOSH approved and are appropriate for the hazard. NIOSH-approved respirators/filters are marked with the manufacturer's name, the part number (P/N), the protection provided by the filter (e.g. N-95), and "NIOSH."

APPENDIX A - *continued*

RESPIRATORY PROTECTION EQUIPMENT – *continued*

D. **Respirator Filters (cont'd)**

1. Identification of Filters, Cartridges, and Canisters

- All filters, cartridges and canisters used in the workplace must be labeled and color coded with the NIOSH approval label
- The label must not be removed and must remain legible
- "TC" number is no longer used or stamped on cartridges or filters (Part 84)
- Must be marked with NIOSH, manufacturer's name and part number, and an abbreviation to indicate cartridge or filter type (e.g., OV, N-95, P-100, etc.)
- Matrix approval label supplied, usually as insert in box

Typically, respirator manufacturers will provide both a color code, i.e. organic vapor, and a filter designation as below. High Efficiency Particulate Air (HEPA) filters are, by definition, 99.97% efficient at removing particulates in the 0.3 micron size range. However, HEPA filters may be classified as N-100, R-100 or P-100.

As it has been determined that oil mists in the work area will cause filter efficiency degradation, NIOSH has established three categories of resistance to oil. Categories of resistance to oil, or resistance to filter degradation, are labeled as; N, R, and P. The "N" series is "not resistant" to oil particles, "R" is "resistant" and "P" is "oil proof". Selection of N, R, and P-series filters depends on the presence or absence of oil particles. The following table provides a summary for the selection of the appropriate filter.

Filter Selection For Oil Resistance

no oil particles are present	use any series N, R, or P
oil particles are present	use only R or P series
oil particles are present & used > 1 workshift	use only P series

NIOSH has also approved three levels of filter efficiency; 95%, 99%, and 99.97%. The rating will be clearly marked on the filter, filter package, or respirator box (e.g., N-95 means N-series filter at least 95% efficient). Therefore, the result is three filter categories based on oil resistance and three efficiency ratings within each of those categories.

APPENDIX A - *continued*

RESPIRATORY PROTECTION EQUIPMENT - *continued*

D. **Respirator Filters** - *continued*

The following table summarizes the nine different types of particulate filters.

Particulate Filter Classification Table

TYPE	DESCRIPTION	OIL RESISTANCE
N-95	Filters at least 95% of airborne particles	Not resistant to oil
N-99	Filters at least 99% of airborne particles	Not resistant to oil
N-100	Filters at least 99.7% of airborne particles	Not resistant to oil
R-95	Filters at least 95% of airborne particles	Somewhat resistant to oil
R-99	Filters at least 99% of airborne particles	Somewhat resistant to oil
R-100	Filters at least 99.7% of airborne particles	Somewhat resistant to oil
P-95	Filters at least 95% of airborne particles	Strongly resistant to oil
P-99	Filters at least 99% of airborne particles	Strongly resistant to oil
P-100	Filters at least 99.7% of airborne particles	Strongly resistant to oil

2. **High Efficiency Particulate Air (HEPA) Filters:** magenta in color

HEPA filters may be classified as N-100, R-100 or P-100 as described above. These filters trap a larger percentage of particles as well as smaller sized particles. HEPA filters are designed to be used for air contaminants such as asbestos.

3. **Chemical Cartridge Filters:** identification and colors vary (see list below)

Chemical cartridges are filled with a treated, activated carbon with a very high adsorption capacity. Gases and vapors passing through chemical cartridges are attracted to and held to the surface of the carbon. With acid and alkaline gases, a chemical reaction and/or adsorption occurs. Unlike particulate filters, chemical cartridges do not become more efficient with use. This type of cartridge, unless provided in combination with a particulate filter, does not provide adequate protection against particulates. Their adsorption capacity is limited and should be replaced as soon as the wearer detects any taste, odor or irritation. When this occurs, a worker should immediately leave the work area and change cartridges.

APPENDIX A - *continued*

RESPIRATORY PROTECTION EQUIPMENT - *continued*

D. **Respirator Filters** – *continued*

3. **Chemical Cartridge Filters:** - *continued*

An abbreviation or the complete name of the chemical(s) the filter is designed for must appear on the filter. Additionally, most are color-coded. Some of the most common are as follows:

Organic vapor cartridges are **black**.
Acid gas cartridges are **white**.
Ammonia gas cartridges are **green**.
Acid gas and organic vapor combination cartridge are **yellow**.
Formaldehyde cartridges are **pea green**.

4. **Combinations**

In work areas with both particulate and chemical hazards the chemical cartridge filters can be doubled up or used in conjunction with a particulate filter or HEPA filter to provide protection in areas with multiple hazards. Some manufacturers design filters to be capable of being threaded together. Other manufacturers make combination filters sealed together as one unit. Pre-filters are often used to extend filter life especially in work areas containing high concentrations of dusts, fumes, and aerosols such as paints.

E. **Governmental Approval/Certification of Respiratory Protective Devices**

Approval and/or certification of personal protective devices and industrial hazards measuring instruments is based on regulations developed for respiratory protective devices by the US Department of the Interior and the National Institute of Occupational Safety and Health Administration (NIOSH).

Regulations for respirator approval and use are incorporated in the Code of Federal Regulations, including but not limited to the following:

1. OSHA Title 29 CFR 1910.134, Respiratory Protection.
2 NIOSH/ Certification Title 40 CFR Part 84, formerly 30 CFR 11, Certification of Respirator Performance

APPENDIX B

Respirator Cleaning Procedures (Mandatory)
Not Applicable to N-95 Respirators

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

I. Procedures for Cleaning Respirators

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

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

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

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

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

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

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

G. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.

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

APPENDIX C

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

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, i.e. N95 (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 before (circle one): Yes/No

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

APPENDIX C – *cont'd*

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?
   Shortness of breath: Yes/No
   a. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
   b. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
   c. Have to stop for breath when walking at your own pace on level ground: Yes/No
   d. Shortness of breath when washing or dressing yourself: Yes/No
   e. Shortness of breath that interferes with your job: Yes/No
   f. Coughing that produces phlegm (thick sputum): Yes/No
   g. Coughing that wakes you early in the morning: Yes/No
   h. Coughing that occurs mostly when you are lying down: Yes/No
   i. Coughing up blood in the last month: Yes/No
   j. Wheezing: Yes/No
   k. Wheezing that interferes with your job: Yes/No
   l. Chest pain when you breathe deeply: Yes/No
   m. 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

APPENDIX C – *cont'd*

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:)
   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 have been omitted as they apply only to employees using either a full-facepiece respirator or a self-contained breathing apparatus (SCBA).

APPENDIX C – *cont'd*

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:_____
   _____

APPENDIX C – *cont'd*

7. Have you been in the military services? Yes/No

   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.

    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

APPENDIX C – *cont'd*

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:
    _____
    _____
    _____

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):
    _____

APPENDIX D

Information for Employees Using Respirators When Not Required Under the Standard

Appendix D to 1910.134 (Non-Mandatory)

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 substances does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard. You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else’s respirator.

APPENDIX E

EMPLOYEES AUTHORIZED TO WEAR RESPIRATORS

ONONDAGA CENTRAL SCHOOL DISTRICT					
Name	**Dept.**	**Asbestos Handler**	**Respirator/Model/Type**	**Medical Questionnaire Respirator Clearance**	**Fit Tested**
Abbott, Dennis	Trans. Maint	No	Advantage 200, Half Mask, Med., Fit Factor 501	6/14/19	6/14/19
Abend, Paul II	Trans. Maint	No	Advantage 200, Half Mask, Med. Fit Factor 3040	6/14/19	6/14/19
Wilson, George	Trans. Maint.	No	MSA Advantage 200, Half Lrg. Fit Factor 242	6/14/19	6/4/13

Onondaga Central
4466 South Onondaga Road
Nedrow, NY 13120
Ms. Jan Volles Ph#(315)492-1734 e-mail: jvolles@ocs.cnyric.org

APPENDIX F

RESPIRATORY PROTECTION SURVEILLANCE RECORD

Employee Name: Dennis Abbott **Title:** Mechanic
School District: Onondaga CSD **Department:** Transportation/Maintenance

---

MEDICAL

☑ Employee is medically able to use respiratory protection devices.
☐ Employee is not medically able to use respiratory protection devices.
☐ Medical clearance to be obtained by private provider.

RESTRICTIONS

☐ May not work in an atmosphere immediately dangerous to life or health.
☐ Cannot use contact lenses with respiratory protection equipment.
☐ Must wear corrective lens inserts in full face respirator.
☐ Firm fitting dentures must be worn with respirator.

Comments:

Facial hair prevents adequate face to mask seal ☐

Must trim mustache ☐ Must remove beard ☐ Must trim sideburns ☐

Other: _____

Review Conducted By: Sandra Prevost, FNP-C, Access Health Systems **Date:** 6/14/2019
Address: 776A Watervliet-Shaker Rd., Latham, NY 12110 **Phone:** 800-732-8004

See Original paperwork from Access Health Systems

Fit Testing: Required Annually

Type of Fit Test: Qualitative ☑ Quantitative ☐ Overall Fit Factor Achieved ☐

Respirator Manufacturer: MSA Advantage **Model No:** 200

Type: Full Face ☐ Half Face ☑

Size: ☐ S ☐ S/M ☐ M ☐ M/L ☑ L ☐ XL ☐ One Size

Recommended Accessories: Nose Cup ☐ Spectacle Kit ☐ Lens Cover ☐

Testing Conducted by: Sandra Prevost, FNP-C, Access Health Systems
Signature: (refer to form) **Date:** 6/14/2019
Provider: Sandra Prevost, FNP-C, Access Health Systems **Phone:** 800-732-8004

APPENDIX F

RESPIRATORY PROTECTION SURVEILLANCE RECORD

Employee Name: Paul Abend II **Title:** Maintenance Mechanic
School District: Onondaga CSD **Department:** Transportation/Maintenance

---

MEDICAL

☑ Employee is medically able to use respiratory protection devices.
☐ Employee is not medically able to use respiratory protection devices.
☐ Medical clearance to be obtained by private provider.

RESTRICTIONS

☐ May not work in an atmosphere immediately dangerous to life or health.
☐ Cannot use contact lenses with respiratory protection equipment.
☐ Must wear corrective lens inserts in full face respirator.
☐ Firm fitting dentures must be worn with respirator.

Comments:

Facial hair prevents adequate face to mask seal ☐

Must trim mustache ☐ Must remove beard ☐ Must trim sideburns ☐

Other: _____

Review Conducted By: Sandra Prevost, FNP-C, Access Health Systems **Date:** 6/14/2019
Address: 776A Watervliet-Shaker Rd., Latham, NY 12110 **Phone:** 800-732-8004

See Original paperwork from Access Health Systems

Fit Testing: Required Annually

Type of Fit Test: Qualitative ☑ Quantitative ☐ Overall Fit Factor Achieved ☐

Respirator Manufacturer: MSA Advantage **Model No:** 200

Type: Full Face ☐ Half Face ☑

Size: ☐ S ☐ S/M ☐ M ☐ M/L ☑ L ☐ XL ☐ One Size

Recommended Accessories: Nose Cup ☐ Spectacle Kit ☐ Lens Cover ☐

Testing Conducted by: Sandra Prevost, FNP-C, Access Health Systems
Signature: (refer to form) **Date:** 6/14/2019
Provider: Sandra Prevost, FNP-C, Access Health Systems **Phone:** 800-732-8004

APPENDIX F

RESPIRATORY PROTECTION SURVEILLANCE RECORD

Employee Name: George Wilson **Title:** Mechanic
School District: Onondaga CSD **Department:** Transportation/Maintenance

---

MEDICAL

☐ Employee is medically able to use respiratory protection devices.
☐ Employee is not medically able to use respiratory protection devices.
☐ Medical clearance to be obtained by private provider.

RESTRICTIONS

☐ May not work in an atmosphere immediately dangerous to life or health.
☐ Cannot use contact lenses with respiratory protection equipment.
☐ Must wear corrective lens inserts in full face respirator.
☐ Firm fitting dentures must be worn with respirator.

Comments:

Facial hair prevents adequate face to mask seal ☐

Must trim mustache ☐ Must remove beard ☐ Must trim sideburns ☐

Other: _____

Review Conducted By: Sandra Prevost, FNP-C, Access Health Systems **Date:** 6/14/2019
Address: 776A Watervliet-Shaker Rd., Latham, NY 12110 **Phone:** 800-732-8004

See Original paperwork from Access Health Systems

Fit Testing: Required Annually

Type of Fit Test: Qualitative ☐ Quantitative ☐ Overall Fit Factor Achieved ☐

Respirator Manufacturer: **Model No:**

Type: Full Face ☐ Half Face ☐

Size: ☐ S ☐ S/M ☐ M ☐ M/L ☐ L ☐ XL ☐ One Size

Recommended Accessories: Nose Cup ☐ Spectacle Kit ☐ Lens Cover ☐

Testing Conducted by: _____
Signature: (refer to form) **Date:** _____
Provider: _____ **Phone:** _____

APPENDIX F

RESPIRATORY PROTECTION SURVEILLANCE RECORD

Employee Name: George Wilson Title: Mechanic

School District: Onondaga CSD Department: Transportation/Maintenance

---

MEDICAL

__X__ Employee is medically able to use respiratory protection devices.
_____ Employee is not medically able to use respiratory protection devices.
_____ Medical clearance to be obtained by private provider.

RESTRICTIONS:

_____ May not work in an atmosphere immediately dangerous to life or health.
_____ Cannot use contact lenses with respiratory protection equipment.
_____ Must wear corrective lens inserts in full-face respirator.
_____ Firm fitting dentures must be worn with respirator.

Comments:

Facial hair prevents adequate face to mask seal _____
Must trim mustache _____ Must remove beard _____ Must trim sideburns _____
Other _____

Conducted by: Robert Beyer, Access Health **Date:** 6/4/13
Address: 421 Broad Street, Suite 12, Utica, NY 13501 **Phone Number:** 315-738-4555

See Original paperwork from Access Health Systems

Fit Testing: (Required annually)

Type of Fit Test: Qualitative __X__ Quantitative_____ Overall Fit Factor Achieved: 242

Respirator Manufacturer: Advantage Model No 200

Type: Full Face_____ Half Face__X__

Size: □**S** □**S/M** □ **M** □**M/L** X **L** □ **XL** □ **One Size**

Recommended Accessories: Nose Cup _____ Spectacle Kit _____ Lens Cover _____

Testing Conducted by: Melissa Britt, Access Health Systems
Signature: Refer to Access Health Systems form **Date:** 6/4/13
Provider: Access Health Systems, 421 Broad Street, Suite 12, Utica, NY 13501
Phone Number: 315-738-4555

APPENDIX F

RESPIRATORY PROTECTION SURVEILLANCE RECORD

Employee Name: _____ **Title:** _____
School District: _____ **Department:** _____

MEDICAL

☐ Employee is medically able to use respiratory protection devices.
☐ Employee is not medically able to use respiratory protection devices.
☐ Medical clearance to be obtained by private provider.

RESTRICTIONS

☐ May not work in an atmosphere immediately dangerous to life or health.
☐ Cannot use contact lenses with respiratory protection equipment.
☐ Must wear corrective lens inserts in full face respirator.
☐ Firm fitting dentures must be worn with respirator.

Comments:

Facial hair prevents adequate face to mask seal ☐

Must trim mustache ☐ Must remove beard ☐ Must trim sideburns ☐

Other: _____

Review Conducted By: _____ **Date:** _____
Address: _____ **Phone:** _____

See Original paperwork from Access Health Systems

Fit Testing: Required Annually

Type of Fit Test: Qualitative ☐ Quantitative ☐ Overall Fit Factor Achieved ☐

Respirator Manufacturer: **Model No:**

Type: Full Face ☐ Half Face ☐

Size: ☐ S ☐ S/M ☐ M ☐ M/L ☐ L ☐ XL ☐ One Size

Recommended Accessories: Nose Cup ☐ Spectacle Kit ☐ Lens Cover ☐

Testing Conducted by: _____
Signature: (refer to form) **Date:** _____
Provider: _____ **Phone:** _____

APPENDIX G

QUALITATIVE RESPIRATOR FIT TESTING PROCEDURE

Each worker shall be individually tested for proper fit using his/her chosen respirator as selected according to Section V of this program. The effectiveness of fit is determined qualitatively using an appropriate fit test agent such as saccharin solution to determine whether or not an adequate seal exists between the respirator facepiece and the wearer. If a proper fit has not been obtained, the wearer will detect the test agent entering the mask through any leaks in the seal.

General fit testing procedures:

1. First, allow the employee to smell the saccharin solution in order to familiarize him/her with the odor and to ensure sensitivity to the reagent. The employee shall then don his/her respirator and wear it for at least ten minutes before the start of the test. The wearer shall make any final adjustments to his/her respirator before undergoing the test. The respirator shall be equipped with an appropriate filter (except N95 or other filtering facepiece type respirators).

2. The test conductor shall then direct the test agent parallel to the facepiece, starting from twelve inches away and moving to within six inch of the respirator. The entire perimeter of the facepiece shall be covered.

3. Ask the test subject to perform each of the following exercises for at least one minute each, while continually directing test agent parallel to the respirator.

    a. Breathe normally.
    b. Breathe deep and regular.
    c. Turn head from side to side. Be sure movement is complete, but do not bump shoulder.
    d. Nod head up and down. Inhale when head is in up position.
    e. Talk loudly for several minutes. Make sure that a wide range of facial movements is achieved. Having the worker read the following "Rainbow Passage" is suggested:

        "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 his reach, his friends say he is looking for a pot of gold at the end of the rainbow."

        The subject can say the alphabet, name/address, etc. in place of the Rainbow Passage.
    f. Bending.
    h. Breathe normally.

If at any time during the test the subject detects the sweet saccharin taste, the test is stopped and the respirator readjusted. The test is then restarted from the beginning. If the test is completed without the subject detecting the saccharin, then a good fit has been achieved.

In the event the second trial results in worker detects the test agent, the worker must then select another respirator and redo the test. The worker is then subjected to the above test again.

APPENDIX G - continued

RESPIRATOR FIT TESTING PROCEDURE - continued

If the test or retest indicates a good seal, the results are then recorded and he/she is assigned that particular type and size respirator. The worker shall then be trained in the proper use of the respirator as outlined in Section VIII of this program.

Specific Fit Test Protocol for Saccharin Solution Aerosol:

1. The test subject may not eat, drink (except plain water), smoke, or chew gum for 15 minutes before the test.
2. The fit test uses the same enclosure described in 3(a) above.
3. The test subject shall don the enclosure while wearing the respirator selected in section I. A. of this appendix. The respirator shall be properly adjusted and equipped with a particulate filter(s).
4. A second DeVilbiss Model 40 Inhalation Medication Nebulizer or equivalent is used to spray the fit test solution into the enclosure. This nebulizer shall be clearly marked to distinguish it from the screening test solution nebulizer.
5. The fit test solution is prepared by adding 83 grams of sodium saccharin to 100 ml of warm water.
6. As before, the test subject shall breathe through the slightly open mouth with tongue extended, and report if he/she tastes the sweet taste of saccharin.
7. The nebulizer is inserted into the hole in the front of the enclosure and an initial concentration of saccharin fit test solution is sprayed into the enclosure using the same number of squeezes (either 10, 20 or 30 squeezes) based on the number of squeezes required to elicit a taste response as noted during the screening test. A minimum of 10 squeezes is required.
8. After generating the aerosol, the test subject shall be instructed to perform the exercises described under the general fit test procedures within this appendix.
9. Every 30 seconds the aerosol concentration shall be replenished using one half the original number of squeezes used initially (e.g., 5, 10 or 15).
10. The test subject shall indicate to the test conductor if at any time during the fit test the taste of saccharin is detected. If the test subject does not report tasting the saccharin, the test is passed.
11. If the taste of saccharin is detected, the fit is deemed unsatisfactory and the test is failed. A different respirator shall be tried and the entire test procedure is repeated (taste threshold screening and fit testing).
12. Since the nebulizer has a tendency to clog during use, the test operator must make periodic checks of the nebulizer to ensure that it is not clogged. If clogging is found at the end of the test session, the test is invalid.

Qualitative fit test protocols using saccharin solution test agents may also be found in OSHA 1910.134(B)(2)&(3), Appendix A.

APPENDIX H

NON-ASSIGNED RESPIRATOR POLICY

Respirators shall be provided by the District when such equipment is necessary to protect the health of the employee. These respirators will be applicable and suitable for the purpose intended. The District is responsible for the establishment and maintenance of a respiratory protection program, which includes the requirements outlined in 29 Code of Federal Regulations (CFR), Subpart I – Personal Protective Equipment, Section 1910.134 – Respiratory Protection, paragraph (c).

The District issues respirators to individual employees as the need is identified through a Job Hazard Analysis (JHA). Each respirator is individually assigned and should be maintained in a way that does not interfere with its performance.

Employees shall not wear a respirator until they have been medically approved, properly fit tested, and trained in the use, care, and proper storage of the respirator so that it does not present a health hazard to the user.

Employees are prohibited from bringing personal respirators into the workplace without prior approval of the District's Respiratory Program Administrator. Only those respirators issued by the district to the employee are to be used in the workplace.

Voluntary use of filtering facepieces, i.e. dust masks, are not required to be included in this program as allowed in 1910.134 (c) (2) (ii).