I. PURPOSE

To help reduce the incidence of employee injuries and illness from airborne contaminants, the school district has established this Respiratory Protection Program. Through this program, the district will ensure that employees are aware of the respiratory hazards that they are exposed to when working, and protective measures that are employed to prevent adverse health effects from occurring.

In the control of occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, vapors, or aerosols, the first goal is to prevent atmospheric contamination through effective engineering control measures. (These include enclosure or confinement of the operation, general or local exhaust ventilation, and substitutes of less toxic materials.) Some schools choose to use more environmentally-friendly products. If neither is feasible, respiratory protection will be used to protect employees.

To protect the health of the employee against recognized respiratory hazards, the school district will provide, at no cost to the employee, a suitable NIOSH-certified respirator which is clean, sanitary, and in good condition. The district will also provide required training, medical evaluation, and fit testing, and ensure that employees use respirators where required.

II. RESPIRATORY PROTECTION STANDARDS

WISHA's respiratory protection standards are set forth in WAC 296-62, Part E, "Respiratory Protection." A Respiratory Protection Program is required in any workplace where respiratory hazards are present and respirators are necessary.

A. Required program elements (see WAC 296-62-07111)

These standards require a written respiratory protection program that must include the following:

1. Procedures for selecting respirators for use in the workplace and a list identifying the proper type of respirator for each respiratory hazard (WAC 296-62-07130 - 07133 and Appendix E); See Section V
2. Medical evaluation of employees required to use respirators (WAC 296-62-07150 - 07156 and Appendices C & D); See Section VI
3. Fit testing procedures for tight-fitting respirators (WAC 296-62-07160 - 07162 and Appendices A-1, A-2, and A-3); See Section VI
4. Procedures for **proper use of respirators** in routine tasks, non-routine tasks, reasonably foreseeable emergency and rescue situations (WAC 296-62-07170 - 07172);  
   See Sections IV & VIII

5. Procedures for **issuing the proper type of respirator** based on the respiratory hazards for each employee;  
   See Section IV

6. Procedures and schedules for **cleaning, disinfecting, storing, inspecting, repairing, discarding and otherwise maintaining respirators** (WAC 296-62-07175 - 07179 and Appendix B-2);  
   See Section VII

7. Procedures to make sure **adequate air quality, quantity, and flow** of breathing air for atmosphere-supplying respirators (WAC 296-62-07182);  
   See Section VII

8. **Training of employees in the respiratory hazards** to which they are potentially exposed during routine, non-routine, and unforeseeable emergency and rescue situations (WAC 296-62-07186 -07188);  
   See Section VIII

9. **Training of employees in the proper use of respirators**, including putting on and removing them, any limitations on their use, and their maintenance (WAC 296-62-07186 - 07188);  
   See Section VIII

    See Section IX

This plan is a summary of the WISHA requirements; users should refer to the standard for specific details of its implementation.

B. **Designation of a Program Administrator** (see WAC 296-62-07113)

A Program Administrator is a trained individual responsible (1) to oversee the respiratory protection program and (2) to conduct the required evaluations of the program's effectiveness. S/he is charged with implementation of, and adherence to, the provisions of the respiratory protection program, and assuring that the respiratory protection measures outlined in this practice are appropriate for each job and are followed. For this school district, the designated Program Administrator is the district's maintenance supervisor/director: (insert name and phone number).

C. **Other related WISHA standards**

There are other WISHA standards that require the use of respiratory protection for employees, including the following: abrasive blasting (WAC 296-24-67507), asbestos containing materials (WAC 296-62-07715), areas containing carcinogens (WAC 296-62-07306), confined spaces (WAC 296-24-71507), exhaust systems (WAC 296-78-71019), fire brigades (WAC 296-24-58617), masonry saws (WAC 296-155-367), mechanical paint removers (WAC 296-304-03005), sanding machines (WAC 296-78-665), spray finishing operations (WAC
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296-62-11019), tunnels and shafts (WAC 296-155-730), welding, cutting and heating (hot work; WAC 296-56-60235), and agriculture (WAC 296-307).

Note: This standard does not apply to the single-strap, non-approved, filtering facepiece disposable dust masks.

III. WHERE RESPIRATORY PROTECTION MAY BE NEEDED IN SCHOOLS

Examples of maintenance and custodial activities in schools where employees may be exposed to potentially toxic environments, and respiratory protection may be required, include (but are not limited to) the following:

* cleaning, finishing, sanding, or buffing floors
* blowing down heaters or air handlers
* applying pesticides, herbicides, or fertilizers
* spray painting
* welding
* spray application of sealants
* septic work
* remediation work for indoor air quality problems
* performing asbestos abatement activities or working with known or suspected asbestos containing materials

(Note: Job descriptions should reflect the potential for certain positions to wear respirators.)

IV. ACTIVITIES WHERE RESPIRATORY PROTECTION IS NEEDED

A. Assessing the respiratory risk (see WAC 296-62-07130)

The first step in determining whether respiratory hazards exist is through the district's Hazard Communication Program, and the hazard information found on the Material Safety Data Sheets. Employees and supervisors should review the Material Safety Data Sheets for the substances being used and evaluate work practices to determine if respiratory protection is needed. (This applies to both routine and non-routine tasks.) The "Workplace Respiratory Hazard Assessment" form can be used to assist with this assessment. (Note: Respiratory risk can also be found in asbestos-containing materials, which is addressed in a separate program.) If possible before respirators are issued, the supervisor should work to eliminate the need for respiratory protection through effective engineering control measures, such as ventilation.

B. Emergency situations (see WAC 296-62-07133)

An emergency situation, in this context, means any occurrence that may or does result in an uncontrolled significant release of an airborne contaminant. (Causes
can include equipment failure, rupture of containers, or failure of control equipment.)

In this school district, we anticipate no emergency situations that require respiratory protection. As listed in other plans, in the event of such an emergency, staff and students quickly evacuate the building and do not reenter the hazardous area. No school district employee will attempt an emergency rescue in a potentially dangerous environment. No school district employee will work in atmospheres that are immediately dangerous to life and health.

V. SELECTING THE PROPER TYPE OF RESPIRATOR

A. Types of respirators

A respirator is a device designed to protect the wearer from breathing harmful vapors. There are two primary kinds of respirators - air-purifying respirators and atmosphere-supplying respirators.

Air-purifying respirator means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element. They do not supply oxygen, so they should not be used in an oxygen deficient atmosphere. Three types are available: particulate-removing, gas- and vapor-removing, and combination particulate- and either gas- or vapor-removing.

* Canister or cartridge means a container with a filter, sorbent, or catalyst, or any combination of these materials, which removes specific contaminants from air drawn through it.

* Mechanical filter respirators can protect the wearer from both solid and liquid particles, including dusts, mists, fumes, smokes and aerosols. This can be a disposable type made with laminated filter (a dust mask), or a facepiece with a filter holder. Mechanical filters do not protect wearers from gases or vapors.

* Chemical cartridge (or canister) respirators are designed to protect the wearer from hazardous substances such as acid gases, organic vapors, ammonia, formaldehyde, and certain pesticides. Cartridges usually contain activated or chemically treated charcoal. (There are many organic chemicals for which there are no NIOSH approved chemical cartridges.) Cartridges are color coded to designate the atmospheric contaminants to be protected against (i.e. - acid gases - white; organic vapors - black); this is also written on the cartridge.

* Combination respirator combines both mechanical and cartridge elements to protect against multiple contaminants.
Atmosphere-supplying respirator means a respirator that supplies the user with breathing air from an uncontaminated source, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA). They supply air that is independent of the air surrounding the wearer. Four types are available: supplied-air or airline; combination supplied-air and air-purifying; combination supplied-air with auxiliary self-contained air supply; and self-contained breathing apparatus.

* Self-contained breathing apparatus (SCBA) means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user (traditionally in a tank carried on the user's back). This type protects against a wide variety of contaminants at almost any concentration.

* Supplied-air respirator (SAR) or airline respirator means an atmosphere-supplying respirator for which the source of breathing air is drawn from a separate, stationary system or an uncontaminated environment. These respirators are not acceptable in atmospheres that are immediately dangerous to life and health.

A half facepiece respirator covers the wearer's nose and mouth; a full facepiece respirator covers the wearer's nose, mouth and eyes. These types of respirators traditionally come in three sizes: small, medium, and large.

B. Choosing the best respirator for the job (see WAC 296-62-07130)

Respiratory hazards are classified into several categories: oxygen deficient; physical properties (gas, vapor, biological aerosols, and particulate contaminants); physiological effects on the body (asphyxiant, carcinogenic, toxic); concentration of toxic material or radioactivity level; established exposure limits; and established immediately dangerous to life or health concentrations. An employee exposure is a worker's exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

Determining the type of respirator that is appropriate for each task is essential. The wrong kind of respirator may not protect the worker. The proper type of respirator should be chosen based on the respiratory hazards of the job, the configuration of the job, and the relevant factors pertaining to the workplace and respiratory user that affects respirator performance. It should be appropriate for the chemical state and physical form of the contaminant, and correctly fit the user.

The respiratory hazard job assessment will be completed or reviewed by the Program Administrator (named in section II). This assessment will be
documented on the "Workplace Respiratory Hazard Assessment" form or similar document.

If there are questions about which type of respirator to use, review the Material Safety Data Sheet(s) or product label, talk to the respirator manufacturer or distributor, the Program Administrator, or a WISHA consultant. For more detailed information on how to choose a respirator, see Appendix E of the WISHA standard, "Additional Information Regarding Respirator Selection." (Note: When using pesticides, be sure to follow the label requirements for respirator selection and use.)

Respirators used must be selected from those approved by the National Institute for Occupational Safety and Health (NIOSH) that are applicable and suitable for the purpose intended. A NIOSH-approved respirator contains the following: an assigned identification number associated with each unit; a label identifying the type of hazard the respirator is designed to protect against; and additional information on the label which indicates limitations and identifies the component parts approved for use with the basic unit.

In most cases, the respirator should be reserved for the exclusive use of a single individual. The respirator must correctly fit the user.

A list of respirators issued to every employee will be maintained by the Program Administrator in one location. Copies of the completed "Workplace Respiratory Hazard Assessment" forms and "Respiratory Protection Training Records" will fulfill this requirement.

VI. ENSURING THAT AN EMPLOYEE CAN WEAR A RESPIRATOR

A. Medical Evaluations and Approval  (see WAC 296-62-07150)

All respiratory protection devices impose some kind of physiological stress on the user. Air-purifying respirators, for example, make breathing more difficult. Persons with heart or lung diseases or other health problems may be harmed by wearing a respirator. Many physicians counsel pregnant workers against wearing respirators.

Only those individuals who are medically able to wear respiratory protective equipment shall be issued a respirator. Before being issued a respirator, and as often as medically indicated, an employee will receive pertinent tests to evaluate medical and physical conditions. (These can include: physical exams, blood chemistry, pulmonary function, chest x-ray, EKG, etc.) The employee's physician visits will be at no cost to the employee and will occur as part of his/her regular workday.
Each potential respirator wearer should be individually evaluated to determine the employee's ability to use a respirator. This is a joint effort by the district, employee, and designated licensed health care provider. Duties are as follows:

**District's duties:**

- Identify a PLHCP (physician or other licensed healthcare provider) to perform medical evaluations
- Provide a copy of the following documents to the PLHCP: the school district's written respiratory protection program, the district's fit testing procedures, the WISHA Respiratory Standard (WAC 296-62, Part E)
- Provide specific respiratory hazard and respirator information to the PLHCP (see WAC 296-62-07152); the completed *Workplace Respiratory Hazard Assessment* form can be used for this
- Administer the *WISHA Respiratory Medical Evaluation Questionnaire*® confidentially to the employee and send it to the PLHCP
- Respond appropriately to written recommendations from the PLHCP
- Provide additional medical evaluations as indicated by the PLHCP

In this school district, the Program Administrator will give the blank *WISHA Respiratory Medical Evaluation Questionnaire*® to the employee and ask him/her to complete it and take it with him/her to the PLHCP.

For this school district, the PLHCP is *(name of doctor or clinic)* at *(their address and phone number)*.

**PLHCP's (physician or other licensed healthcare provider's) duties:**

- Review specific respiratory hazard and protection information and determine what additional questions to ask
- Review and evaluate the completed *WISHA Respiratory Medical Evaluation Questionnaire*®
- Arrange for any necessary medical testing (this may include: a pulmonary function test, chest x-ray, or electrocardiogram)
- Complete any follow-up evaluations with employee
- Complete the written recommendations for respirator use and send to both the employee and district

The employee will cooperate with all of the above, and provide input on respirator selection and use when requested.

® - Medical evaluation forms are found at the end of the WISHA standard in Appendix C - "WISHA Respiratory Medical Evaluation Questionnaire" and Appendix D - "Health Care Provider Respirator Recommendation Form".
B. Types of Fit Testing for Tight-Fitting Respirators

**Fit test** means the use of an accepted protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See Appendix A-1, "General Fit Testing Requirements for Respiratory Protection" for requirements and additional information on fit testing.) Fit tests must be administered using WISHA-accepted protocols.

**Qualitative fit test (QLFT)** means a pass/fail test that relies on the individual's response to the test agent to assess the adequacy of respirator fit for an individual. WISHA-accepted QLFTs include: (1) isoamyl acetate (banana oil), (2) saccharin solution aerosol (taste response), (3) Bitrex (denatonium benzoate) solution aerosol (taste response), and (4) irritant smoke (stannic chloride). See Appendix A-2, "Qualitative Fit Testing (QLFT) Protocols for Respiratory Protection" for details of this testing.

**Quantitative fit test (QNFT)** means an assessment of the adequacy of respirator fit for an individual by numerically measuring the amount of leakage into the respirator. WISHA-accepted QNFT's include: (1) generated aerosol protocol, (2) ambient aerosol condensation nuclei protocol, (3) portacount fit testing procedures, and (4) controlled negative pressure fit testing. See Appendix A-3, "Quantitative Fit Testing (QNFT) Protocols for Respiratory Protection" for details of this testing.

In this school district, the banana oil or irritant smoke qualitative fit tests will be used for fit testing tight-fitting respirators.

In order to assure that the respirator will seal properly, all employees required to wear a respirator must be and remain clean-shaven. (Clean-shaven means that the employee has no beard or shadow that will prevent the respirator from making a smooth seal with the face. Moustaches that do not extend below the lower lip and do not interfere with the respirator fit may be worn.) In addition, corrective glasses, goggles or other personal protective equipment may not interfere with the face-to-facepiece seal or valve function.

C. Frequency of Testing

The purpose of the fit test is to ensure that the tight-fitting mask fits securely and does not allow vapors, fumes, etc. to enter and be inhaled. This test will be performed by a qualified fit tester fit test using WISHA-approved protocols. The current qualified fit tester is the maintenance supervisor/director: *(insert name and phone number).*

Once an employee has passed the medical exam, a fit test must be conducted for tight-fitting respirators **before the initial respirator use**, when a different respirator is used, when there are changes in the employee’s physical condition.
that could affect respirator use, and annually thereafter. (AHERA regulations require fit testing every six months.) A record of the initial or most current fit test for each employee who uses a respirator will be kept on file by the Program Administrator.

In addition to the required formal fit testing by a qualified person, the snug fit of the mask on tight-fitting respirators should be checked by the wearer before each use. See Appendix B-1 of the WISHA standard, "User Seal Check Procedures," for this protocol.

**VII. ENSURING EFFECTIVE RESPIRATOR OPERATION**

Follow the manufacturer's written recommendations for respirator selection, use, inspection, maintenance, filter replacement, cleaning, and storage.

**A. Inspecting the Respirator**

Respirators and their components shall be **inspected by the wearer prior to each use and during cleaning.** Respirators shall be removed from service if their function has been adversely affected. Items removed from service should be tagged as defective and should **not** be returned to use until repaired or adjusted properly and deemed safe by a trained individual.

Employees should never alter or repair a respirator. Only NIOSH-approved replacement parts from the respirator's manufacturer can be used. Repairs should be made according to the manufacturer's specifications.

The facepiece, mask, head straps, filters/canisters/cartridges, housing, hoses and valves should be checked for any deterioration or damage including:

- Dirt
- Corrosion
- Cracks, tears, breaks, or holes
- Distortion from improper storage
- Cracked, scratched or loose fitting lens
- Broken or missing mounting clips, buckles or attachments
- Loss of elasticity/ pliability
- Excessively worn head straps that might let the facepiece slip
- Deterioration of rubber straps, hoses, nose clips, etc.
- Inhalation/exhalation valve damage
- Detergent residue, dust or dirt on the valve seat
- Cracks, tears or distortion in the valve
- Missing or defective valve cover
- Proper type of filter for the job and contaminants
- Missing or worn gaskets
• Worn threads
• Cracks or dents in the housing
• Spent, dirty, used filters
• Expired cartridges or contaminated prefilters for cartridges

Note: Cartridges usually are considered spent after eight hour of consecutive use, after two weeks (even without much use), or when break-through is detected by the wearer - whichever comes first. Follow the manufacturer’s guidelines for replacement of the prefilter, filter, cartridge and canister.

B. Ensuring adequate air supply

Before each use of an atmosphere-supplying respirators (SCBA or SAP), the user should also check to make sure that the air tank is fully charged (SCBA) or the air line is correctly connected and functioning (SAP), and the regulator and warning devices function properly. More detailed requirements for ensuring proper breathing air quality are found in WAC 296-62-07182.

C. Cleaning and disinfecting the respirator

Periodically, respirators should be cleaned and disinfected. If the respirator is used by more than one person (which is not the norm in a school district), the respirator should be cleaned and disinfected after each use.

Most respirators can be washed in a detergent solution and immersed in a sanitary solution. However, rubber and plastic can be damaged by strong cleaning agents, alcohol, laquer/paint thinner, etc. Check the manufacturer's recommendations concerning cleaning. See also Appendix B-2, "Respiratory Cleaning Procedures," for this protocol.

D. Storing the respirator

After the respirator has been removed and cleaned or wiped, it should placed in a plastic bag provided by the supervisor and stored it in a secure location (dedicated lockers or cabinets are traditionally used) near the worksite. The respirator should be protected from damage, contamination, dust, light, heat, cold, moisture, or chemicals. Respirators should be packed to prevent deformation of the facepiece and valve.

E. Employee complaints or problems with respirators

When there is a change in work area conditions, or degree of employee exposure, stress that may affect respirator effectiveness, the district must reevaluate the continued effectiveness of the respirator. If health problems or respiratory hazards are suspected, contact the job supervisor or Program
Administrator. Symptoms which may indicate problems with respirator use include: eye or skin irritation, changes in breathing resistance, severe discomfort in wearing the respirator, sensations of dizziness, nausea, weakness, breathing difficulty, coughing, sneezing, vomiting, fever and chills.

VIII. EMPLOYEE TRAINING (see WAC 296-62-07186)

Each employee who engages in work with an associated respiratory hazard, and his/her supervisor, must be trained in the proper use of the respiratory protection appropriate for that job before being required to wear a respirator. The training session should be conducted by a qualified individual, and overseen by the Program Administrator. Employees must be retrained if they change or add to the types of equipment they use, if circumstances change significantly, or problems are identified. Retraining must be completed annually.

Training must ensure the employee understands the following:

1. Why the respirator is necessary and how improper fit, use or maintenance can compromise the protective effect of the respirator.
2. What the respirator is capable of doing and what its limitation are.
3. How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
4. How to inspect, put on and remove, use, and check the seals of the respirator.
5. The procedure for maintaining and storing the respirator.
6. How to recognize medical signs and symptoms that may limit or prevent the effective use of the respirator.
7. The general requirements of the Respiratory Protection standard, chapter 296-62 WAC, Part E.

A record of the training must be kept. The attached form, "Respiratory Protection Training Record," can be used for this purpose.

If inappropriate respirator use is noted during routine job surveillance or periodic program evaluation, the employee should be retrained.

IX. EVALUATING THE RESPIRATORY PROGRAM'S EFFECTIVENESS (see WAC 296-62-07192)

At least annually the district will consider the effectiveness of the respiratory protection program. The Program Administrator will coordinate this evaluation and report its status to district's safety committee.

Evaluation should include periodic visits to the workplace by the Program Administrator to (1) make sure that the requirements of the current written
X. RECORD KEEPING

The following written records should be kept by the Program Administrator:

- The current written Respiratory Protection Program
- Program evaluations and monitoring

For each respirator user:

- Written recommendations from the PLHCP
- The most recent fit testing noted on the "Respirator Fit Test Record"
- Completed "Workplace Respiratory Hazard Assessment" or equivalent
- Completed "Respiratory Protection Training Record" or equivalent

A list of respirators issued to each employee will be maintained by the Program Administrator in one location. Copies of the completed "Workplace Respiratory Hazard Assessment" forms and "Respiratory Protection Training Records" will fulfill this requirement.

XI. VOLUNTARY USE OF RESPIRATORS (see WAC 296-62-07117)

The district may provide respirators at the request of employees, or permit employees to use their own respirators, if the Program Administrator determines that respirator use will not in itself create a hazard. The district must ensure that any employee using a respirator voluntarily should be medically able to use that respirator, and that the respirator is cleaned, stored and maintained properly. (This does not apply to the single-strap, non-approved, filtering facepiece disposable dust masks.)

Employees who choose to wear a respirator when not required to should be provided the following information (taken directly from the WISHA standard, WAC 296-62-07117, Figure 1):

Important Information About the Voluntary Use of Respirators

Note: "You" and "your" means the employee in the following information.
Respirators protect against airborne contaminants when properly selected and worn. Respirator use is encouraged, even when exposure to contaminants are below the exposure limit(s), to provide an additional level of comfort and protection for the workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to you. Sometimes, workers may wear respirators to avoid exposures, to hazards even if the amount of the hazardous contaminants (chemical and biological) does not exceed the limits set by WISHA standards. If your employer provides respirators for your voluntary use, or if you are allowed to 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 follow all instructions provided by the manufacturer on use, cleaning, and care, and warnings regarding the respirator's limitations.

2. Choose respirators certified for use to protect against the contaminants 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 solvent vapor or smoke (since smoke particles are much smaller than dust particles).

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

Attached documents:

"Workplace Respiratory Hazard Assessment" (2 pages)
"Respiratory Protection Training Record" (1 page)
"Respirator Fit Test Record" (1 page)
"WISHA Respiratory Medical Evaluation Questionnaire" (6 pages)