

IEA, INC.

NORTHFIELD PUBLIC SCHOOLS



#### Contact Us:

**BROOKLYN PARK OFFICE**

9201 W. BROADWAY, #600  
BROOKLYN PARK, MN 55445  
763-315-7900

**MANKATO OFFICE**

610 N. RIVERFRONT DRIVE  
MANKATO, MN 56001  
507-345-8818

**ROCHESTER OFFICE**

210 WOOD LAKE DRIVE SE  
ROCHESTER, MN 55904  
507-281-6664

**BRAINERD OFFICE**

601 NW 5TH ST. SUITE #4  
BRAINERD, MN 56401  
218-454-0703

**MARSHALL OFFICE**

1420 EAST COLLEGE DRIVE  
MARSHALL, MN 56258  
507-476-3599

**VIRGINIA OFFICE**

5525 EMERALD AVENUE  
MOUNTAIN IRON, MN 55768  
218-410-9521

[www.ieasafety.com](http://www.ieasafety.com)

800-233-9513

# Management Plan for Respiratory Protection

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## Management Plan for Respiratory Protection

### Table of Contents

#### Annual Review Form

1.0	Purpose .....	1
2.0	Scope and Application .....	1
3.0	Responsibilities .....	1
4.0	Respirator Selection .....	1
5.0	Procedures for Respirator Use.....	2
6.0	Inspection.....	2
7.0	Medical Evaluations for Required Users.....	3
8.0	Fit Testing.....	3
9.0	Maintenance .....	4
10.0	Training .....	4
11.0	Program Evaluation.....	4
12.0	Recordkeeping .....	4

#### Appendices:

- A Respirator Assessments
- B Employee Tracking Form with Cartridge Change-Out Schedule
- C Fit-Test & Training Records
- D Voluntary User Form

**Contact Person:** Cole Nelson

**Phone Number:** 507-645-3435

**Email Address:** [cnelson@northfieldschools.org](mailto:cnelson@northfieldschools.org)

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## **1.0 Purpose**

The purpose of this program is to prevent employees of Northfield Public Schools from exposure to respiratory hazards and to provide regulatory compliance with OSHA 29 CFR 1910.134 *Respiratory Protection*. Where feasible, engineering, or administrative controls are implemented to protect employees from dangerous atmospheres with which they may come into contact.

- Engineering controls, such as exhaust ventilation, and substitution of less toxic materials are the first line of defense. However, engineering controls are not always possible.
- Administrative controls may involve limiting the number of employees who can enter areas with the potential for a hazardous atmosphere, the length of time they are exposed to that hazardous atmosphere or eliminating entry into hazardous atmospheres altogether.
- In certain cases, both engineering and administrative controls are adopted. In other situations, when engineering and/or administrative controls are not feasible or do not adequately control the hazard, respirators and other personal protective equipment are used.

## **2.0 Scope and Application**

This program applies to employees who are required to wear respirators during work operations, as required by OSHA 29 CFR 1910.134. In addition, any employee who voluntarily wears a respirator, when one is not required, is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program. He or she must also be provided the required Voluntary User Information Form (see Appendix D). Employees who voluntarily wear filtering facepieces are required to be provided the Voluntary User Information Form.

## **3.0 Responsibilities**

The following are the duties of the program administrator or a designee:

- Identify work areas, processes, tasks, or hazards that require workers to wear respirators
- Select and order proper respiratory equipment
- Monitor use to determine if respirators are used as specified
- Observe proper storage and maintenance of respiratory equipment
- Arrange medical evaluations
- Arrange and/or conduct fit testing
- Arrange and/or conduct training
- Evaluate the program annually and update as needed
- Maintain records

An appointed designee may perform any or all of these tasks as the program administrator sees fit. Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees are also required to care for and maintain their respirators as instructed.

## **4.0 Respirator Selection**

An assessment has been conducted to identify respiratory hazards in the workplace. Where Northfield Public Schools cannot identify or reasonably estimate employee exposure, the district considers the atmosphere to be Immediately Dangerous to Life and Health (IDLH) and complies with applicable regulations.

### **Respirators for IDLH Atmospheres**

Oxygen deficient and enriched atmospheres (less than 19.5 % and greater than 23.5% oxygen) are considered IDLH. Northfield Public Schools does not allow its workers to enter or work under IDLH situations.

### **Respirators for Non-IDLH Atmospheres**

The respirator selected must be appropriate for the chemical state and physical form of the contaminant(s) present.

- For protection against gases and vapors, an atmosphere-supplying respirator or an air-purifying respirator is used. If an air-purifying respirator is used, the respirator is equipped with the appropriate NIOSH certified cartridge or canister with an end-of-service-life indicator (ESLI); or if there is no ESLI, a cartridge change-out schedule is implemented and cartridges are replaced per the schedule noted on the tracking form(see appendices).
- For protection against particulates, an atmosphere-supplying respirator or an air-purifying respirator is used.

## **5.0 Procedures for Respirator Use**

### **Facepiece Seal Protection**

Respirators with tight-fitting facepieces are not used by employees who have facial hair or any other condition that comes between the sealing surface of the respirator and the face or that interferes with valve function. If an employee wears glasses or goggles, they are worn in a manner that does not interfere with the respirator seal.

User seal checks are performed as follows to confirm that an adequate seal is achieved each time the respirator is put on:

- Positive Pressure Check – Close off exhalation valve with the palm of the hand and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without evidence of leakage. It may be necessary to remove the exhalation valve cover to completely close off the valve.
- Negative Pressure Check – Close off the inlet opening of the canister or cartridge(s) by covering with palm of hand or by replacing the filter with something that will seal the opening. Inhale gently so that the facepiece collapses slightly and hold breath for ten seconds. If the inlet opening cannot be effectively covered, a thin latex or nitrile glove can be used. If the facepiece remains in the collapsed position and no leakage is detected, the tightness of the seal is considered satisfactory.

The respirator manufacturer's procedures for performing a user seal check may be used instead of the procedures listed above, if it can be demonstrated that the procedures are equally effective.

### **Respirator Assessment Reevaluation**

Northfield Public Schools will continuously monitor the workplace conditions in respect to respiratory hazards and proper protection. For example, when there is a change in work area conditions, product use, or equipment use.

### **Additional Procedures**

Employees are required to:

- Wash their face and respirator facepiece to prevent skin irritation following use of the respirator (as necessary).
- Leave the respirator use area if they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece of any kind. The respirator must be repaired or replaced before the employee may return to the work area.
- Replace the respirator or the filter, cartridge, or canister elements when necessary.

## **6.0 Inspection**

Northfield Public Schools requires that all employees who use respirators inspect their respirators before each use and during cleaning.

Respirators for use in emergency situations are inspected at least monthly in accordance with the manufacturer's recommendations and are checked for proper function before and after each use. Emergency escape-only respirators are inspected before being carried into the workplace for use.

Respirators are inspected as follows:

- Check function, tightness of connections, and condition of the various parts (e.g. facepiece, straps, valves, connecting tubes, cartridges/canisters/filters).
- Check elastomeric parts for pliability and signs of deterioration.

## **7.0 Medical Evaluations**

### **Required Users**

Employees who are required to use respirators must be medically evaluated and cleared for respirator use before being permitted to wear a respirator on the job. Respirator exams must be administered by a physician or other licensed health care professional (PLHCP). The district contracts with MedCompass or 3M to perform medical evaluations.

The evaluation must consider: the employee's health, specific job description, respirator type, and workplace conditions. The contracted entity utilizes OSHA's respiratory protection standard for the medical questionnaire. The district provides the following to the PLHCP: type and weight of respirator, how long and how often it will be used, how hard the employee will be working, other PPE that will be utilized while the respirator is worn, temperature and humidity extremes at work, and a copy of the standard and the written program

After the evaluation is complete, the physician or PLHCP will provide the employee and employer with a written recommendation. The document must state three things:

1. Whether the employee is medically able to wear the respirator and if there are medical limitations for using the respirator;
2. The need, if any, for follow-up medical evaluation(s); and
3. A statement that the physician or PLHCP has provided you with a copy of their written recommendation.

The exam is administered confidentially, during the employee's normal work hours or at a time convenient to the employee. The employee is given the opportunity to discuss the exam results with the PLCHP. The written recommendation to the employer cannot include any confidential medical information about the employer.

### **Voluntary Users**

Medical evaluations are not required for employees who choose to voluntarily utilize filtering-facepiece (N95) respirators.

## **8.0 Fit Testing**

Employees required to use a tight-fitting respirator or filtering facepiece are fit-tested prior to initial use, whenever a different respirator is used, and annually thereafter. Employees will be fit tested with the make, model, and size of respirator that they will wear. The fit test is administered using an OSHA-accepted qualitative fit-test method. The fit testing records are maintained with this program (see appendices).

Fit testing for voluntary respirator users is optional and can be completed upon request by the employee. The fit test would be administered using an OSHA-accepted qualitative fit test method.

## 9.0 Maintenance

### Cleaning

Respirators are regularly cleaned and disinfected by the respirator user, as necessary, to maintain a sanitary condition. Emergency use respirators are cleaned and disinfected after each use. The following procedure is used when cleaning respirators:

- Disassemble respirator, removing filters, canisters, and cartridges
- Wash facepiece and associated parts in mild detergent with warm water. A stiff bristle (not wire) brush may be used.
- Rinse completely in warm water
- Wipe respirator with non-alcoholic disinfectant wipes to kill germs
- Air-dry in a clean area, or hand-dry with a clean, lint-free cloth
- Reassemble respirator, and replace any broken or defective parts
- Test respirator to confirm that all components work properly

### Repairs

Respirators that fail an inspection are removed from service and are discarded or repaired as seen fit. Repairs are made by properly trained people, and the repairs are made with NIOSH-approved parts. Repairs are made according to manufacturer's recommendations and specifications. Regulators and alarms are adjusted or repaired only by the manufacturer or by a technician trained by the manufacturer.

### Storage

Respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. Emergency respirators are kept accessible to the work area, stored in compartments labeled as emergency respirators, and are stored in accordance with manufacturer's recommendations.

## 10.0 Training

Northfield Public Schools provides training to employees under the Respiratory Protection Program. Each trained employee can:

- Demonstrate knowledge of why the respirator is necessary.
- How improper fit, usage, or maintenance can compromise the protective effect of the respirator.
- What the limitations and capabilities of the respirator are.
- How to use respirator effectively in emergency situations, including situations in which the respirator malfunctions.

Employees also know how to inspect, put on, check the seals, and remove the respirator, recognize medical symptoms that may limit the effectiveness of its use, and are familiar with the general requirements of this program. Training is presented before an employee is required to use a respirator and annually thereafter. Training may also occur if there is a change in the workplace situation or if an employee does not demonstrate understanding of respirator use. Training records are documented as part of the fit test record and are filed in the District Office.

## 12.0 Program Evaluation

An evaluation of the Respiratory Protection Program is performed on an annual basis to document that the provisions of the current written program are being effectively implemented. The evaluation includes regular consultations with employees who use respirators, site inspections, and a review of records.

## 13.0 Recordkeeping

A written copy of this program is kept with the program administrator and is available to all employees for review. Also maintained with the program administrator are current records of training, fit testing,

and the status of medical evaluations. These records are updated as new employees are trained and medically evaluated, as existing employees receive refresher training, and as new fit tests are conducted. Medical questionnaires are kept confidential for the life of the employee.



# **Appendix A**

## *Respirator Assessments*

# Respirator Assessment Form

**District Name:** \_\_\_\_\_ **Building:** \_\_\_\_\_  
**Employee Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Person Conducting Assessment:** \_\_\_\_\_ **Signature:** \_\_\_\_\_  
Print

1. List the types of respirator(s) and cartridge(s) available in building, if any:

Type of Respirator	Type of Cartridge/Filter	Associated Task(s)
<i>e.g. Full face</i>	<i>AG/OV</i>	<i>Emergency clean-up of pool chemicals</i>

**Respirator Examples:** 1-strap paper masks, N-95, filtering facepiece respirator for vapors, ½ mask respirator, full face respirator, PAPR, supplied air respirator

**Cartridge Examples:** particulates (P100 - purple), particulates free of oil (N95, N99, N100 – teal), acid gas (AG-white), organic vapor (OV-black), ammonia gas (green), multi-contaminant (olive), acid gas and organic vapor (AG/OV – yellow)

2. Does employee feel he/she *should* be provided a respirator or dust mask because of the tasks that he/she does? If yes, for what task(s)? \_\_\_\_\_ Yes    No
3. Please list what tasks (if any) employee performs that may necessitate a respirator and/or what specific chemicals or other possible contaminants employee may generate, including approximate frequency and duration (e.g. spray paint thirty minutes once per week): *(obtain copies of MSDS for chemicals exposed to)*

Task	Frequency	Duration (8 hr shift)	Chemical/Contaminant	MSDS Obtained
<i>e.g. Emptying dust collectors</i>	<i>Once/month</i>	<i>2 hrs</i>	<i>Sawdust (pine)</i>	<i>No</i>

4. What type of ventilation does employee have in his/her area, if known (local exhaust, dilution, etc)? \_\_\_\_\_

Does it seem to be working properly?

Yes    No

## **Appendix B**

*Employee Tracking Form  
(Maintained in District Office Health & Safety Files)*

## **Appendix C**

*Fit-Test & Training Records  
Voluntary User Information Form  
(Maintained confidentially)*

# **Appendix D**

## *Voluntary User Information Form*

## Respiratory Protection

### VOLUNTARY USER INFORMATION

Employees whose job duties, positions, or work environments require respiratory protection as determined by Northfield Public Schools are fully covered under the Respiratory Protection Program. Some of our employees use respirators on a voluntary basis as an additional level of comfort and protection in different work environments. OSHA requires employers to give voluntary respirator users information provided in Appendix D of 29 CFR 1910.134. Appendix D states the following:

#### **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 respirator's limitations.
2. Choose a respirator 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 particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

[63 FR 1152, Jan. 8, 1998; 63 FR 20098, April 23, 1998]

By signing this document, you state that you understand why this information is being provided to you, know where respiratory protection related safety records are maintained, and will abide by the parameters listed in Appendix D.

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Print Name	Signature	Job Title	Date