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| Image of different types of household hazardous waste bottles, including oil, gas can, insect spray and others. | **SOP 2.05 Respirator Protection Plan: General Guidance for HHW Programs** |

# 1. Introduction

*Note: This guidance document is for informational purposes only and outlines basic Occupational Safety and Health Administration (OSHA) employer obligations. The Minnesota Pollution Control Agency (MPCA) makes no guarantee that this document satisfies the requirements of its users ensuring OSHA compliance. It is the sole responsibility of your specific Household Hazardous Waste (HHW) Program employer(s) to determine if OSHA requirements have been met.*

The purpose of this Standard Operating Procedure (SOP) is to coordinate a Respiratory Protection Program documenting staff requirements and equipment use. Where feasible, exposure to air contaminants must be eliminated or reduced using engineering and/or administrative controls. **Engineering**controls remove the hazard at the source or place a barrier between the worker and the hazard (e.g., ventilation, machine guards, wet-cutting technique). Administrative controls are policies or practices that reduce workers’ exposure to hazards (e.g., minimizing the number of workers exposed and/ or the exposure time).

This SOP is specific to this Program’s [respirator program](https://www.osha.gov/publications/respiratory_protection_bulletin_2011), and is updated as necessary to reflect any changes in workplace conditions that affect respirator use, including if your Program uses respirators and/or if voluntary use of respirators is permitted. The [Program Manager] is the designated Respirator Program Administrator and is responsible for implementing and evaluating the effectiveness of this SOP. Implement all section of this SOP if employees are required to use respiratory protection; if voluntary use of respirators is permitted: see Attachment A.

# 2. Medical evaluation

2.1 Staff required to wear any type of respirator shall participate in a medical evaluation program, including completing a [medical questionnaire](https://www.osha.gov/sites/default/files/publications/OSHA3790.pdf) specific to each staff person’s own respirator use. The completed questionnaire shall be evaluated by a Physician or [Licensed Health Care Professional](https://www.osha.gov/occupational-health-professionals) (PLHCP). The employer shall pay for the medical evaluation and it must be completed prior to a [fit test](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppA) and respirator use.

2.2 Information provided to the PLHCP includes:

* Type of respirator(s) to be used.
* Task that shall be performed.
* Time length of wear.
* Potential air contaminant(s).

2.3 The PLHCP’s approval shall not disclose any confidential medical information and contain:

* Type of respirator approved for use.
* Any restrictions regarding the use of the specified respirator.
* Additional recommendations for medical surveillance or frequency.
* Pulmonary function test; pass/fail.
* The written certification.

# 3. Respirator use

Respirators are an effective method of protection against air borne hazards if properly selected and worn. Respirator use is encouraged, even when levels are below the [OSHA exposure limits](https://www.osha.gov/annotated-pels/table-z-1) to provide an additional level of comfort and protection. However, if used improperly or not kept clean, the respirator itself can become a hazard to the worker. If this Program’s Employer provides respirators for HHW staff voluntary use or if staff utilize their own. Additional precautions are required to ensure the respirator itself does not present a hazard.

**3.1** The Program Administrator is responsible for selecting the appropriate respirator based on any potential hazard. Air contaminants shall first be eliminated or reduced using engineering and/or administrative controls, i.e., ventilation. In situations where this is not feasible, respiratory protection shall be provided; see Attachment B.

**3.2** Air monitoring tests previously conducted may be used to determine respiratory protection recommendations; see [HHW Household Hazardous Waste Program Air Monitoring Study](https://www.pca.state.mn.us/sites/default/files/w-hhwsop2-05a.pdf). This MPCA sponsored study was specific to HHW facilities and concluded: ‘*Exposure to VOCs by inhalation and skin contact does not pose a serious risk to HHW employees when proper procedures for chemical handling and bulking are followed’.*

**3.**3 If half-mask or powered-air purifying respirators are available for voluntary use, this Program shall have and implement all sections of this SOP. OSHA exempts fit testing from voluntary respirator users, although still may be required from this Program’s Employer. This Program may permit the voluntary use of respirators if:

* The respirator is National Institute for Occupational Safety and Health ([NIOSH](https://www.cdc.gov/niosh/docs/2005-149/default.html)) certified and is a filtering face piece respirator or facepiece (i.e., dust mask, or dusk mask with nuisance odor protection).
* Use is not required and is only being used on a voluntary basis.
* There is no overexposure to airborne contaminants.
* There is no requirement to annually fit test.
* The only respirator being used is a filtering facepiece.
  1. Employers must ensure each individual staff’s respirator is:
* Cleaned (except filtering face pieces) and maintained after each use and according to the manufacturer’s directions; respirators not assigned to an individual must also be disinfected after each use.
* [NIOSH](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/default.html) certified.
  + [Seal checked](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppB1) prior to [fit testing](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppA) and use.
  + Used in areas adequately ventilated and where air contains enough oxygen to sustain life.
  1. Use a respirator fit test needs to meet the following criteria:
* To determine if a satisfactory seal can be obtained and obtain a written certification from a PLHCP of that ability.
* Test unable to be performed on staff with facial hair that passes between the respirator seal and face and/or interferes with valve function; see Attachment C.
* The test is conducted following the procedures in the [OSHA respirator standard](https://www.osha.gov/respiratory-protection/standards).
* All testing on the Respirator is documented (see [Fit Test Record Form](https://www.bing.com/images/search?view=detailV2&ccid=DkpLMjlQ&id=6BD71D8C062EDDC9263E69C0A27826994791897F&thid=OIP.DkpLMjlQ1QeLAc7mYkaCuQHaJ2&mediaurl=https%3a%2f%2fwww.signnow.com%2fpreview%2f17%2f380%2f17380302%2flarge.png&cdnurl=https%3a%2f%2fth.bing.com%2fth%2fid%2fR.0e4a4b323950d5078b01cee6624682b9%3frik%3df4mRR5kmeKLAaQ%26pid%3dImgRaw%26r%3d0&exph=1024&expw=770&q=osha+respirator+fit+test+form+pdf&simid=608025446689362136&FORM=IRPRST&ck=C23ED2BAE0FD0CB6D4EA987797780F01&selectedIndex=0&ajaxhist=0&ajaxserp=0) or Attachment D).
* If wearing corrective glasses, does so in a manner that does not interfere with the facepiece seal.
* Passes prior to using a respirator with a tight-fitting facepiece.
  1. **Respirator maintenance**

**Inspection**

* Inspect the unit prior to each use, following the manufacturer’s instructions.
* Report respirator defects to the Respirator Program Administrator and obtain replacement parts and/or a new respirator, as needed.
* Prohibit the use of defective respirators.

**Cleaning**

* Staff shall clean respirators using respirator wipes (except filtering facepieces) immediately after each use and following manufacturer’s directions.
* Respirators not specifically assigned to an individual shall be disinfected after each use.
* Clean respirators on a routine basis and document all dates of cleaning or maintenance.

**Storage**

* Store respirator and air cartridges in a clean, dry container and/or a re-sealable zip lock plastic bag to preserve shelf-life and prevent deformation of the facepiece and exhalation valve; protect from heat, direct sunlight, dust, and damaging chemicals.
* Discard or replace filtering facepiece respirator (dust mask) cartridge after each use or if staff can smell break though.

# 4. Training

Staff shall be properly trained in accordance with [1910.134(k)](https://www.osha.gov/laws-regs/interlinking/standards/1910.134(k)) and even if the only respirator being used is a filtering facepiece. Each individual employee using a respirator or filtering face piece respirator on a voluntary basis must be:

* Fit tested or user seal checked prior to the use of respiratory protection.
* Trained on the need, proper selection, use, limitations, and care procedures.
* Trained annually (or as needed) on the applicable sections of this SOP.

# 5. Record keeping

The following records shall be maintained by the Respirator Program Administrator, including:

* Keeping respiratory protection training records for a minimum of 3 years.
* Maintain schedules and listed tasks requiring the use of respirators including date, type of respirator, cleaning, changing replacement parts, and/or chemical cartridges, (if mandatory use).
* Staff’s fit test records for current year (until next test is conducted).
* Results of air monitoring conducted by the Facility or state (30 years).
* Completed questionnaires and results of medical examinations shall be maintained by the PLHCP. The PLHCP’s written certification regarding the Staff’s ability to wear a respirator shall be retained by [Program Manager or Human Resource staff] specifically designated to maintain confidential medical records (keep for the duration of staff employment, plus 30 years).

# Attachment A

## Voluntary Use of Filtering Facepiece Respirators; **Information for Staff Using Respirators When Not Required Under the Standard (Mandatory)** [29 CFR 1910.134, Appendix D](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppD)

Situations may apply where voluntary use of respirators is permitted, such as half-mask or powered-air purifying respirators. Respirators are also an effective method of protection when properly selected and worn. Respirator use is effective 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, including:

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 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 is displayed on the respirator or packaging indicating what the respirator is designed for and how much protection is provided.
3. Do not wear respirator into atmospheres containing contaminants or oxygen levels for which the respirator is not designed to protect against i.e., a respirator designed to filter dust particles does not protect against gases, vapors, or very small solid particles in fumes or smoke.
4. Keep track of individual respirators so someone else’s respirator is not mistakenly used.

# Attachment B

**Respirator selection and use**

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|  | Program Manager or Respirator Program |
| Administrator (Name and title) |  |

**Tasks requiring the use of respirators & type of respirator (list):**

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**Schedule for changing chemical cartridges and filters:**

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| Examples: | **Filters/prefilters:** When breathing becomes difficult.  **Filtering Facepiece respirators:** When breathing becomes difficult or facepiece becomes dirty.  **Organic Vapor Cartridges:** Weekly (every 30 hours of use) or when chemical odor can be detected. |

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# Attachment C

**User Seal Check Procedures**

[29 CFR 1910.134, Attachment B-1:](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppB1) The individual who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive or negative pressure checks listed in this attachment, or the respirator manufacturer’s recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit tests.

**I. Facepiece Positive and/or Negative Pressure Checks**

**A. Positive Pressure Check.** Close off the exhalation valve 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 any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

**B. Negative pressure check.** Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the 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.

**II. Manufacturer’s Recommended User Seal Check Procedures**

The respirator manufacturer’s recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer’s procedures are equally effective [[63 FR 1152](https://www.govinfo.gov/app/details/FR-1998-01-08/97-33843)].

# Attachment D

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| **Respirator Fit Test Record:** | |  | |
|  | | (Name) | |
| HHW Program Name: | |  | |
|  | | (Manufacturer, model, size) | |
| Date of fit test:   /   / | | Fit test conducted by: |  |
| Fit test method: |  | | |
| Results of fit test:  fits | | does not fit | |

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| --- | --- | --- | --- | --- |
| Respirator type: |  | | | |
|  | | | (Manufacturer, model, size) | |
| Date of fit test:   /   / | | | Fit test conducted by: |  |
| Fit test method: | |  | | |
| Results of fit test:  fits | | | does not fit | |

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| --- | --- | --- | --- | --- |
| Respirator type: |  | | | |
|  | | | (Manufacturer, model, size) | |
| Date of fit test:   /   / | | | Fit test conducted by: |  |
| Fit test method: |  |  | | |
| Results of fit test:  fits | | | does not fit | |
| Comments: | | |  | |
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