



ADMINISTRATIVE PRACTICES MANUAL

SAFETY MANUAL – RESPIRATORY PROTECTION:

1.0 Scope and Application

Dane County has developed the following respiratory protection program to protect the health and safety of County employees who are exposed to respiratory hazards. This policy applies to all employees who use a respirator, except for respirators that are used to protect against biological hazards. The applicability of a particular requirement is dependent on the type of respirator used and the conditions under which it is worn. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as promulgated by the Wisconsin Department of Safety and Professional Services and 29 CFR 1910.134 (Respiratory Protection) promulgated by the U.S. Occupational Safety and Health Administration.

2.0 Responsibilities

Risk Management – Safety Coordinator: Designated as the Program Administrator. Administers and oversees the following aspects of the respiratory protection program:

- Assists with the selection of respiratory protection options.
- Approve all tasks that require respirator use (voluntary or otherwise).
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
- Arrangement for and/or conducting training.
- Arrangement for and/or conducting exposure monitoring.
- Arrangement for or conducting qualitative respirator fit testing.
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Provides OSHA respirator information to voluntary wearers.
- Annually evaluates the program.

Department Heads: Implementation of policy.

- Identify work areas, processes or tasks that require workers to wear respirators.
- Coordinate employee testing and training requirements with Risk Management / Safety.

Supervisors: Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and medical evaluation.

- Ensuring the availability of appropriate respirators and accessories.
- Being aware of tasks requiring the use of respiratory protection.
- Enforcing the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- Continually monitoring work areas and operations to identify respiratory hazards.

Employees: Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained and to:

- Care for and maintain their respirators as instructed, and store them in a clean sanitary location.
- Clean their respirator at the end of each use.
- Change their respirator or respirator cartridge according to the change out schedule.
- Able to get a face-to-mask seal when required to wear a respirator.
- Inform their Supervisor if the respirator no longer fits well, and request a new one that fits properly.



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- Inform their Supervisor or Risk Management/Safety Coordinator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

3.0 Departmental Polices and Requirements

This policy represents the minimum requirements associated with respiratory protection. Department Heads may develop more specific procedures to be followed in their respective departments.

4.0 Definitions

PEL: Permissible Exposure Limit for an airborne contaminant as listed by OSHA, usually expressed as an 8-hour time weighted average concentration.

5.0 Training

Each employee required to wear a respirator, or an employee who has received approval from the Program Administrator to wear a voluntary respirator other than a filtering facepiece (dust mask), will receive training at the time of their initial assignment and annually thereafter in the following topics.

- Why the respirator is necessary and 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 the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to inspect, put on and remove, use, and check the seals of the respirator;
- What the procedures are for maintenance and storage of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
- The general requirements of this policy.
- Requirements contained in departmental specific written work practices.

Retraining will be provided annually, and whenever the following situations occur:

- Changes in the workplace or the type of respirator render previous training obsolete;
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
- Any other situation arises in which retraining appears necessary to ensure safe respirator use.

6.0 Documentation Requirements

Department Heads will conduct a reasonable evaluation of all work tasks in their respective departments that have the potential to cause employee exposures to airborne contaminants in excess of the OSHA Permissible Limit (PEL). These evaluations will be coordinated with the



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County Risk Management – Safety Coordinator. Specific written work procedures will be developed by the Department Head for any work tasks that show respiratory protection is required to reduce employee exposures below the PEL. The Risk Management department will maintain documentation of the following information:

- All exposure test results and monitoring data.
- All fit testing results.
- All medical surveillance documentation.
- All training documentation.
- Annual review of respirator program.

Supervisors shall ensure that respirator information is provided to all employees who have been approved to wear a voluntary filtering facepiece (dust mask) and shall document the conveyance of such information.

7.0 General Requirements

- a) Respirator use will be required for any task involving an exposure to a chemical substance where such exposure is at or above the Permissible Exposure Limit (PEL) and will continue until engineering and administrative controls have been installed to the extent feasible to reduce exposures below the PEL.
- b) Employees may not perform any task requiring the use of a respirator, or wear a respirator, for any reason, without first obtaining approval from the Program Administrator. Respirators are defined as any device used to prevent or minimize the inhalation of toxic, hazardous, or nuisance air contaminants, including the use (voluntary or otherwise) of particulate air filters commonly referred to as "dust masks". Although respirators provide protection from exposure to air contaminants, employees are prohibited from entering any work area in which atmospheric conditions exist that are immediately dangerous to life and health (IDLH), including rescue operations. Employees who are required to participate in this program do so at no cost to them. The expense associated with training, medical evaluations and respiratory protection equipment will be borne by the County.
- c) Work areas will be evaluated to identify tasks in which airborne contaminants may be present during normal work routines or in emergency situations. The evaluation will include:
 - Identification and development of a list of hazardous substances used in the workplace.
 - Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing work procedures, and talking with employees and Supervisors.
 - Exposure monitoring to quantify potential hazardous exposures.
- d) The Program Administrator shall ensure a hazard assessment of the workplace is conducted and updated as needed (i.e., any time work process changes which may potentially affect employee exposures). If an employee feels that respiratory protection is needed during a particular activity, he or she is to contact his or her Supervisor to then contact the Program Administrator. The Program Administrator will evaluate the potential hazard and arrange for outside assistance as may be necessary. The Program Administrator will then communicate the results of that assessment back to the employees. If it is determined that respiratory protection is necessary, all other elements of this program will be in effect for those tasks and this program will be updated accordingly.
- e) All respirators used by the County will be certified by the National Institute for Occupational Safety and Health (NIOSH) and used in accordance with the terms of that certification. All filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced at any time while it is in use.



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8.0 Voluntary Respirator Use

Voluntary use is defined as the use of a filtering face piece, such as the use of a dust mask, in situations where the employee is not exposed to regulated contaminants above the OSHA Permissible Limit. Employees must receive permission from the Program Manager before being allowed to wear a voluntary filtering face piece. Employees who receive approval to voluntarily wear a dust mask are exempt from all other elements of this program except that they must be provided with a copy of the Voluntary Respirator Information Sheet.

9.0 Required Respirator Use

Respirator use may be required for the following activities:

- Weekly cleanup of the shooting range (lead exposures)
- Sandblasting highway equipment (particulate metals and dust)
- Painting highway equipment (solvents)
- Pesticide application (pesticides)
- Employee exposures to tuberculosis.
- Any other job that may require the use of a respirator.

The employee's Supervisor should be consulted prior to the performance of any task in which the potential for inhalation of chemical vapors, fumes, mists, dusts, or fogs exists or is anticipated. Any employee wearing a respirator and performing a task not listed above shall contact their Supervisor so that they can be enrolled in the respiratory protection program. Appropriate training must be fulfilled before task can be done.

10.0 Medical Evaluations

Employees who are either required to wear respirators, or who choose to voluntarily wear any type of respirator, except for a dust mask, must pass a medical exam before being permitted to wear a respirator on the job. All examinations and questionnaires are to remain confidential between the employee and the physician.

Employees who are required to wear respirators due to lead exposures in the shooting range are exempt from this requirement provided that they do not perform clean-up activities for more than thirty (30) days per year.

Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use. Employees failing the medical evaluation will be reassigned and/or have restrictions placed on their job duties to prevent exposure to contaminants that would otherwise require the use of a respirator.

A licensed physician or designated facility (ie. Concentra) by the County will provide the medical evaluations. Medical evaluation procedures are as follows:

- A medical evaluation will be conducted using a questionnaire provided by the Program Administrator.



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- To the extent feasible, the County will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the physician for medical evaluation.
- All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the physician or clinic of choice determined by the Program Administrator.
- Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by the physician.
- All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
- The Program Administrator will provide the physician with a copy of this program, a copy of the Respiratory Protection standard, the list of hazardous substances used, and for each employee requiring evaluation; his or her work area or job title, proposed respirator type and weight, length of time required to wear respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.
- Any employee required for medical reasons to wear a positive pressure air-purifying respirator will be provided with a powered air-purifying respirator.

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

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

11.0 Fit Testing

All employees required to wear respiratory protection or employees who use voluntary respirators other than a dust mask must be fit tested on an annual basis. Fit testing will be performed by a qualified individual or may be performed in-house by the Program Administrator according to the following schedule:

- Prior to being allowed to wear any respirator with a tight fitting face piece.
- Annually.
- Whenever there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, dental changes, etc.).

Employees will be qualitatively fit tested with the make, model, and size of respirator that they will actually wear and be provided with different sizes of respirators so that they may find an optimal fit. Fit testing of Powered Air-Purifying Respirators (PAPRs) will be conducted in the negative pressure mode. If conditions affecting respirator use change, the Program Administrator will evaluate on a case-by-case basis whether Quantitative Fit Testing is required. Fit testing shall adhere to the following protocols:

- Employees having excess facial hair, beard growth, or long sideburns shall not be tested if a face to mask seal cannot be obtained.



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- Employees will be instructed on the conditions that prevent a good respirator face seal such as, but not limited to; beard growth, sideburns, a skull cap that projects under the face piece, temple pieces on glasses, or the absence of one or more dentures.
- One of the three qualitative fit testing protocols contained in the appendix to 29 CFR 1910.134 will be used to conduct the test with a preference for saccharin fit testing.
- Employees will be provided a Safety Data Sheet on the substance used for the test upon request.

Prior to the fit test, employees will be instructed in the proper selection, use, and maintenance of respiratory protection. Employees will be provided the opportunity to handle the respirator, have it fitted properly, test its face to face piece seal, and wear it in normal air for a familiarity period prior to the actual fit test. Fitting instructions will include demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly. Employees who must wear corrective lenses or glasses and will receive special instructions on the hazards posed by such use and shall be properly fitted such that the eyewear does not interfere with the face piece seal.

The following records shall be kept on file in each employee's personnel record for a minimum of three (3) years:

- Name of employee.
- Date fit test was performed.
- Fit test protocols used.
- Name of test conductor.
- Respirator used during the fit test, including manufacturer, model number, size and approval numbers.

Employees failing the fit test will be reassigned and/or have restrictions placed on their job duties to prevent exposure to contaminants that would otherwise require the use of a respirator. Such circumstances include, but are not limited to; dentures and reconstructive surgery. The Program Administrator shall determine, at his or her discretion and upon consultation with appropriate personnel, what conditions constitute circumstances requiring reassignment and/or restriction.

12.0 Respirator Use

All employees are required to conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them) as specified in the Respiratory Protection Standard. All employees shall be permitted to leave the work area to go to the locker room or other storage area to maintain their respirator for the following reasons: to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees should notify their Supervisor before leaving the area.

Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal. Respirator wearers are not allowed to have full beards. Employees involved in tasks requiring respirator use may be required to shave so that the respirator fits properly for their own protection. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the face-to-face seal.



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13.0 Emergency Procedures

Employees are not allowed to respond to emergencies involving hazardous chemicals and as such, no foreseeable emergency conditions resulting in employee exposures to hazardous substances are expected to occur as. In the event a hazardous substance is involved in an emergency situation, follow the facility's emergency action plan.

14.0 Respirator Malfunction

For any malfunction of an Air Purifying Respirator (APR), such as vapor breakthrough, face leakage, or improperly working valve, the respirator wearer must inform his or her Supervisor that the respirator no longer functions as intended, and go to the locker room or other designated area to maintain the respirator. Respirators found to be non-functioning as a result of an integral malfunctioning component part must be discarded as the County prohibits employees from repairing any non-functioning respirator.

15.0 Cleaning, Maintenance, Change Schedules and Storage

Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary, but at least once per day if they have been used. The following procedure is to be used when cleaning and disinfecting respirators:

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the face and associated parts in mild detergent with warm water. Do not use organic solvents.
- Rinse completely in clean warm water.
- Wipe the respirator with disinfectant wipes (e.g., 70% Isopropyl Alcohol) to kill germs.
- Air dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other airtight container.

Note: Supervisors and Crew Leaders shall ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact their Supervisor.

Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects each time the respirator is worn. Worn or deteriorated parts will cause the respirator to be discarded as no components will be replaced or repairs made. Malfunctioning respirators shall be discarded and a new respirator shall be issued. The following checklist will be used when inspecting respirators:

- Face Piece:
- cracks, tears, or holes
 - facemask distortion
 - cracked or loose lenses/faceshield
- Headstraps:
- breaks or tears
 - broken buckles



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Valves:

- residue or dirt
- cracks or tears in valve

Filters/Cartridges:

- approval designation
- gaskets
- cracks or dents in housing
- proper cartridge for hazard

Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards, such as a locker room or other designated area. Such maintenance may include washing their face and respirator to prevent eye or skin irritation, replacing the filter, cartridge or canister.

16.0 Change Schedules

Employees wearing respiratory protection against dusts and other particulates shall change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e., resistance) while wearing their masks. Organic and inorganic vapor cartridges shall be changed out after a maximum of eight (8) hours of use. Changeouts may be required more frequently if breakthrough (odors) is noticed during the wearing of the respirator.

17.0 Storage

Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and will store their respirator in a plastic bag in their own locker or storage area. Each employee will have his or her name on the bag and that bag will only be used to store that employee's respirator.

18.0 Defective Respirators

Respirators that are defective or have defective parts shall be taken out of service immediately and discarded. If, during an inspection, an employee discovers a defect in a respirator, he or she is to bring the defect to the attention of his or her Supervisor so that a new respirator can be issued.

19.0 Program Evaluation

The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their Supervisors, site inspections, air monitoring and a review of records. Problems identified will be noted in the evaluation log contained in the appendix.

End Policy