DHHS POLICIES AND PROCEDURES

Section V: Human Resources
Title: Safety and Benefits

Chapter: Respiratory Protection Plan

Current Effective Date: 3/1/16

Revision History: 5/1/09, 9/1/05, 3/1/16

Original Effective Date: 6/1/93

Purpose

The purpose of this policy is to establish practices and procedures for the training, use, storage, and maintenance of respiratory protective equipment for DHHS staff required to wear a respirator to protect from hazards resulting from assigned job duties.

Policy

It is the policy of DHHS to protect employees, patients, clients, residents, and any other individuals from respiratory hazards. This policy establishes a respiratory protection plan to ensure compliance with the Occupational Safety and Health Administration (OSHA) standards.

Roles and Responsibilities

Safety Programs Manager

The Safety Programs Manager (SPM) ensures that a written respiratory protection plan is in place. The SPM reviews the policy periodically.

Safety Officer

The Safety Officer monitors his/her assigned area to ensure compliance with this policy. The Safety Officer oversees and monitors the effectiveness of the Respiratory Protection Program. The Safety Officer coordinates training and fit-testing in accordance with this Plan.

Manager/Supervisor

The manager/supervisor ensures that employees comply with the guidelines established by this Plan. The manager/supervisor ensures that designated staff complete required training prior to wearing a respirator.

DHHS Staff

Staff are responsible for complying with this policy. Affected staff complete training and fittesting as required.

Implementation

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Program Scope

In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mist, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished whenever feasible by accepted engineering control measures (i.e.; enclosure or confinement of the operation, general and local ventilation, and substitute with less toxic materials).

To assure the adequacy of a respiratory protection program, monitoring should be conducted on an as needed basis to provide for a continuing healthful environment for employees.

When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used.

Respirator Selection

Respirators and filters will be selected by the Safety Officer on the basis of hazards to which the worker is exposed. All respirators and filters selected shall be approved by the National Institution of Occupational Safety and Health (NIOSH) for that specific purpose.

Respirator Assignment

Each department or work area performing work which requires employees to use respiratory protection equipment provides such equipment to each work site in sufficient quantity to adequately protect all employees involved in the work. Each department or work area provides replacement parts as needed to properly maintain each type of respirator authorized for use. Each department providing respiratory protective equipment only provides those models approved by the Safety Officer. The Safety Officer will identify the correct respirator to be used for each activity, but it is the responsibility of the Supervisors to ensure the protective equipment is worn. Where practicable, the respirator should be assigned to individual employees for their exclusive use.

Training

Employees that are required to wear respiratory protection equipment must be properly trained and fit tested annually prior to use in a contaminated area. If requested, employees are afforded the opportunity for follow-up medical clearances. Employee training shall be provided to each user of a respirator prior to required use. The user trainee must demonstrate their knowledge in the following areas:

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.
- Procedures for maintenance and storage of the respirator. Importance of bagging and storing a clean respirator in a proper location.

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- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- The general requirements of 29 CFR 1910.134.

Medical Clearance

All employees required to use respirators shall be medically cleared to ensure they are physically and psychologically able to perform the work and to use the equipment.

- All employees using tight fitting respirators, to include filtering facepieces, 1/2 face negative pressure, full face negative or positive pressure, or supplied air respirators complete the medical questionnaire (see Attachment A).
- The medical questionnaire is to be treated as confidential information.
- The medical questionnaire will be reviewed by a healthcare professional, who will make provisions to evaluate the questionnaire and provide such physical examinations as deemed necessary.
- The medical questionnaire is made part of the employee's medical file. Upon making medical determination for clearance, the Safety Officer is notified of the results.
- Employees medically cleared are then scheduled for training and fit testing with the appropriate respiratory protection equipment by the Safety Officer or other qualified employees.

Fit-Testing

All employees using respirators will be fit tested annually. Work supervisors will schedule a time for testing their employees with the Safety Officer (see Attachment B). Qualitative fit testing is acceptable for most hazards in the work place. Initial training and fit testing is conducted by the Safety Officer or other qualified employees. Supervisors schedule a time for testing with the Safety Officer. Fit test procedures comply with the requirements of 29 CFR 1910.134 App A, Fit Testing Procedures as follows:

- The employee is allowed to pick the most acceptable respirator so that the respirator is acceptable to, and correctly fits, the user.
- The employee is shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit.
- The employee is informed that he/she is being asked to select the respirator that provides the most acceptable fit.
- The employee is instructed to hold each chosen face-piece up to the face and eliminate those that obviously do not give an acceptable fit.
- The more acceptable face-pieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn for at least five minutes to assess comfort.
- Determination of respirator comfort will be made by the following:
 - 1. Position on the nose
 - 2. Room for eye protection (if other than full face)
 - 3. Room to talk

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- 4. Position of mask on face and cheeks
- The following criteria are used to help determine adequacy of the respirator fit:
 - 1. Chin properly placed
 - 2. Adequate strap tension, not overly tightened
 - 3. Fit across nose bridge
 - 4. Respirator of proper size to span distance from nose to chin
 - 5. Tendency of respirator to slip
- The employee conducts a user seal check, both negative and positive pressure seal checks. Before conducting the negative and positive pressure checks, the employee is told to seat the mask on the face by moving head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another face-piece is selected and retested if the employee fails the user seal check tests.
- The test is not conducted if there is any hair growth between the skin and the face-piece sealing surface, such as stubble beard growth, beard, mustache or sideburns, which cross the respirator sealing surface.
- Any type of apparel which interferes with a satisfactory fit must be altered or removed.
- If an employee exhibits difficulty in breathing during the tests they are referred to a physician or other licensed health care professional, as appropriate, to determine whether the employee can wear a respirator while performing their duties.
- If the employee finds the fit of the respirator unacceptable, the employee is given the opportunity to select a different respirator and be retested.
- Exercise regimen: Prior to the commencement of the fit test, the employee is given a description of the fit test and employee's responsibilities during the test procedure, including a description of the test exercises the employee will be performing.
- The fit test is performed while the employee is wearing any applicable safety equipment that may be worn during actual respirator use which could interfere with respirator fit.
- Employees perform test exercises during the fit test procedure in the following manner:
 - 1. Normal breathing. In a normal standing position, without talking, the employee shall breathe normally.
 - 2. Deep breathing. In a normal standing position, employee shall breathe slowly and deeply, taking caution so as not to hyperventilate.
 - 3. Turning head side to side. Standing in place, the employee shall slowly turn their head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the employee can inhale at each side.
 - 4. Moving head up and down. Standing in place, the employee shall slowly move his/her head up and down. The employee shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).

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- 5. Talking. The employee shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor.
- 6. Bending over. The employee shall bend at the waist as if he/she were to touch his/her toes.
- The employee is questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried.
- The respirator is not adjusted once the fit test exercises begin. Any adjustments voids the test, and the fit test must be repeated.
- The employees who have been fit tested shall notify the Safety Officer when a change has occurred in their facial structure, due to weight loss or gain, dentures or surgery so an additional fit test can be conducted to ensure the current face-piece is still appropriate.
- When the equipment is used, it will be tested in an uncontaminated atmosphere prior to entering the hazardous area if possible.

Work Activities Requiring Respiratory Protection Equipment

When an employee is required to use products or substances which give off toxic fumes, or when required to work in close proximity to such toxic substances, respirators approved by NIOSH for that specific substance are worn. Substances and/or products that may require respiratory protection include, but are not limited to: petroleum-based paints, lead-based paints, lacquers, finishes, thinners, solvents, pesticides, insecticides, herbicides, rodenticide, and dust.

Although not necessarily required, due to the levels of concentration or hazard exposed to, it is the policy of DHHS that employees working in the areas listed below, or performing work activities listed below, shall be required to use respirators, or other protective devices as specified, to insure worker safety.

- Employees who are performing fogging or fumigation operations with any type of pesticide wear full-face respirators with NIOSH approved agriculture or pesticides filters. Employees applying pesticides, insecticides, herbicides, or fungicides wear at a minimum, a 1/2 face negative pressure respirator fitted with filter cartridges rated for organic vapors, dusts and mists.
- All personnel involved in asbestos related work activities are required to use half-face negative pressure respirators or full face respirators. Air monitoring samples should be obtained prior to authorization.
- Healthcare service personnel may be exposed to air-borne diseases, such as tuberculosis (TB). When in contact with a person clinically diagnosed or suspected to have TB, employees must wear TB HEPA rated respirators or PAPR with HEPA rated filter unit. Used masks are disposed of as biohazardous waste.
- Masonry shop employees using a concrete saw use 1/2 face negative pressure respirators equipped with organic vapor and dust rated filters whenever dust levels are at or exceed the permissible exposure level for nuisance dust or for the specific materials being cut, if required.

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- Powerhouse employees engaged in the cleaning of the inside of the boilers where dirt and dust levels may become heavy use 1/2 face negative pressure respirators equipped with dust rated filter cartridges. Filter cartridges shall also be provided with pre-filters.
- Carpenter employees engaged in the use of power sanders, without the use of the dust collection system, shall use 1/2 face respirators equipped with dust rated filter cartridges. Filter cartridges shall also be provided with pre-filters.

Respirator Filter Cartridge Change-Out Schedule and Storage

Due to the infrequent and sporadic use of respirators by employees it is difficult to determine a schedule of filter cartridge replacement that ensures proper protection for the user and is still cost efficient. Most areas only require the use of a respirator for short periods of time a few times a year. Under these circumstances the filter cartridges are effective for several years.

- All areas which have employees that use respirators shall initiate a program to have the filter cartridges changed, at a minimum, on a yearly basis, to be done in the month one year from the month that the cartridge was placed in service. The month and year that the filter is placed into service shall be written on the cartridge case in permanent ink to indicate when the cartridge is due for replacement. Filter cartridges that have an end of service life indicator are exempt from this filter replacement schedule, and shall be replaced at the end of their usable life.
- Powerhouse employees may need to use respirators a couple of times a year, but will need to change the filter cartridges two or three times per day due to the dust generated when cleaning the boilers.
- Employees using respirators notify their supervisor of the need to change filters more frequently if the flow of air is restricted due to a buildup of particulate matter on the filter.
- Supervisors shall maintain an adequate supply of appropriate filters and prefilters for replacement as needed.
- Under normal conditions, filter cartridges are used with a pre-filter attached to trap larger particulate matter and extend the usable life of the filter cartridges. These pre-filters are replaced as required by use.

Respirator Cleaning

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 in 1910.134 Appendix B-2 or those listed here. Procedures for cleaning respirators:

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

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- Wash components in warm (43°C [110 OF] 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.
- Rinse components thoroughly in clean, warm (43°C [110°F] maximum), preferably running water. Drain.
- 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 OF); or,
 - 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/IOO cc of45% q alcohol) to one liter of water at 43°C (110 OF); or,
 - Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
- 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 face-pieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
- Components should be hand-dried with a clean lint-free cloth or air-dried.
- Reassemble face-piece, replacing filters, cartridges, and canisters where necessary.
- Test the respirator to ensure that all components work properly.

References

- OSHA General Industry Standard, Respiratory Protection, 29CFR 1910.134 https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716
- OSHA General Industry Standard, Respiratory Protection for Tuberculosis, 29CFR 1910.139

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https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=18051

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Part A. (Mandatory) Every employee who has been selected to use any type of respirator must provide the following information.								
Section 1: Employee Ide	entification							
Name:			Home F	hone:				
Date of Birth:			Work P	hone:				
Social Security Number:			Gender	:				
Job title:			Height	(lbs.):				
Supervisor:			Weight	(ft, in):				
Can you read English?				☐ Yes ☐ No				
Has your employer told you to how to contact the healthcare professional who will review this?			☐ Yes ☐ No					
	Section 2: Cu	irrent R	espirat	or Use				
than one).		□н	Filtering facepiece (N-95)					
Have you worn a respirator in the past?			es 🗆	No No				
If yes, what type of respirator have you worn?		Brand		Mo	odel		Size	
Describe the job duties requiring the use of a respirator.								
Will there be physical exertion while wearing the respirator? ☐ None ☐ Mild ☐ Moderate ☐ Strenuous								
How long will you wear the respirator in a single day?	☐ Less than 4 hours/week ☐ Less than 2 hours/day ☐ 2-4 hours/day ☐ Over 4 hours/day							
Is protective clothing also worn?	□ Yes □ No	Describe to clothing:	he					
Identify hazardous or special work conditions	☐ Confined Spaces ☐ Toxic Gases ☐ Asbestos ☐ Lead	Describe a other haza						



Part B. (Mandatory) Every employee who has been selected to use any type of respirator must provide the following information.							
Section 1: Personal Medical Information If this is an initial examination, give answers based on your entire work history. If this is a periodic examination, give answers based on the past year. Please answer all questions fully.							
□ Ever							
Do you smoke tobacco? (No = less than 20 packs per life-tim	ne or less than 1 per day per	year)	☐ Within t	he Past Mont	h		
		, ,	☐ Currently				
If yes, how many packs per day or pipes/cigars per week?			□ 1	□ 2	☐ 2 or more		
If yes, how many years have you sn	noked?	□ 1-9	□ 10-19	□ 20-29	☐ 30 or more		
	Seizures	☐ Yes ☐ No	Jaundice		☐ Yes ☐ No		
Have you ever had any of the	Diabetes	☐ Yes ☐ No	Kidney dis	sease	☐ Yes ☐ No		
following conditions?	Rheumatic fever	☐ Yes ☐ No	Bladder d	isease	☐ Yes ☐ No		
	Allergic reactions that		Claustrop	hobia	☐ Yes ☐ No		
	interfere with breathing	☐ Yes ☐ No	Can't sme	ell odors	☐ Yes ☐ No		
	Asbestosis	☐ Yes ☐ No	Emphyser	ma	☐ Yes ☐ No		
	Asthma	☐ Yes ☐ No	Tuberculo	sis	☐ Yes ☐ No		
Have you ever had any of the	Chronic bronchitis	☐ Yes ☐ No	Lung cand	er	☐ Yes ☐ No		
following pulmonary or lung problems?	Pneumonia	☐ Yes ☐ No	Broken rik	os	☐ Yes ☐ No		
problems.	Chest injuries/surgeries	☐ Yes ☐ No	Silicosis		☐ Yes ☐ No		
	Collapsed lung	☐ Yes ☐ No	Hay Fever	•	☐ Yes ☐ No		
	Common Cold	☐ Yes ☐ No	Other lung	problem	☐ Yes ☐ No		
Do you currently experience shortness of breath during any of	Walking fast on level ground/up a slight incline	☐ Yes ☐ No	Walking at your own pace		☐ Yes ☐ No		
the following activities?	Walking with other		Washing/	dressing	☐ Yes ☐ No		
	people at an ordinary pace on level ground	☐ Yes ☐ No	Any other time that interferes with job		☐ Yes ☐ No		
Do you currently experience	That produces a phlegm (thick sputum)	☐ Yes ☐ No	That occu when lyin	•	☐ Yes ☐ No		
coughing?	That wakes you early in the morning	□ Yes □ No	That prod	luces blood	☐ Yes ☐ No		
Do you currently have any other	Wheezing	☐ Yes ☐ No	Chest pair breathing		☐ Yes ☐ No		
symptoms of pulmonary or lung illness?	Wheezing that interferes with your job	□ Yes □ No	Any other related symptoms		□ Yes □ No		
	Heart attack.	☐ Yes ☐ No	Stroke		☐ Yes ☐ No		
Have you ever had any of the	Angina.	☐ Yes ☐ No	High bloo	d pressure	☐ Yes ☐ No		
following cardiovascular or heart problems?	Heart Failure.	☐ Yes ☐ No	Heart arrh irregular h	•	☐ Yes ☐ No		
	Swelling in your legs or feet (not caused by walking)	☐ Yes ☐ No	Any other heart problem.		□ Yes □ No		



	Frequent pain or tightness in your chest.	☐ Yes ☐ No	Your heart skipping or missing a beat.	☐ Yes ☐ No	
Have you ever had any of the following cardiovascular or heart	Chest pain/tightness during physical activity.	☐ Yes ☐ No	Heartburn not related to eating.	☐ Yes ☐ No	
symptoms?	Chest pain/tightness that interferes with the job.	☐ Yes ☐ No	Other heart symptoms	□ Yes □ No	
Do you currently take medication for any of the following	Breathing/lung problems	☐ Yes ☐ No	Blood pressure	☐ Yes ☐ No	
problems?	Heart trouble	☐ Yes ☐ No	Seizures	☐ Yes ☐ No	
	Breathing/lung problems	☐ Yes ☐ No	List any other		
Do you currently take medication for any of the following	Heart trouble	☐ Yes ☐ No	medications you take	☐ Yes ☐ No	
problems?	Blood pressure	☐ Yes ☐ No	now (including over- the-counter)		
	Seizures	☐ Yes ☐ No	and dounter,		
		☐ Eye Irritation			
If you have used a respirator in the	past, have you ever had	☐ Skin allergies or rashes			
any of the following problems? (If you've never worn a respirator,		☐ General weakness or fatigue			
question.)	proceed to the next	☐ Anxiety			
		☐ Any other problem that interferes with your use of a respirator			
Would you like to talk to the healthcare professional who will review this questionnaire about your answers?					



Part C. (Supplemental) If you will be wearing a full facepiece or SCBA respirator, complete the following section. If not, please skip this section and sign at the bottom.						
Have you ever lost vision in either eye?		☐ Yes ☐ No	Have you ever had an injury to ears/eardrums	☐ Yes ☐ No		
Do you currently have any of	Wear contact lenses	☐ Yes ☐ No	Color blind	☐ Yes ☐ No		
the following vision problems?	Wear glasses	☐ Yes ☐ No	Any other eye or vision problem	☐ Yes ☐ No		
Do you currently have any of the following hearing	Difficulty hearing	☐ Yes ☐ No	2.1 I have a subleme			
problems?	Wear a hearing aid	☐ Yes ☐ No	Other hearing problems	☐ Yes ☐ No		
	Weakness in arms, hands, legs, or feet.	☐ Yes ☐ No	Difficulty bending at knees.	☐ Yes ☐ No		
Do you currently have any of	Difficulty fully moving arms and legs.	☐ Yes ☐ No	Difficulty squatting to the ground	☐ Yes ☐ No		
the following musculoskeletal problems?	Pain/stiffness leaning forward/backward at waist.	☐ Yes ☐ No	Difficulty climbing stairs with > 25 lbs.	☐ Yes ☐ No		
	Difficulty fully moving head up or down.	☐ Yes ☐ No	Other muscle/skeletal			
	Difficulty fully moving head side to side.	☐ Yes ☐ No	problems that interferes with respirator use.	☐ Yes ☐ No		
Have you ever had a hack injury?			Do you currently have back pain?	☐ Yes ☐ No		
I hereby certify that the above	e information is true a	nd accurate to t	he best of my knowledge	e		
Employee's Signature						



RESPIRATORY PROTECTION Fit-Testing Form

This form is to be completed and signed by the physician or licensed healthcare professional who reviews the medical surveillance questionnaire. Indicate recommendations and any restrictions. This form must be completed, signed, and given to the Safety Officer prior to respirator fit-testing.

Employee Identificat	ion		
Name:		Division:	
Date of Birth:		Department/Facility:	
Date of medical evaluation	on:		
Recommendations (check one of the following):		
☐ No restrictions	on respirator use		
☐ No restrictions	on respirator use		
☐ No respirator u	se permitted.		
☐ Employee to us	se powered air purifying respira	tor (PAPR) only.	
☐ No respirator u	se until further medical evaluati	on/diagnostic testing is	complete.
Restrictions:			
List any restrictions b	elow (not for medical informat	ion or LOU sensitive ma	aterial):
Based on the medica the following date:	l evaluation, this employee sho	uld be reevaluated on	
and tollowing date.			
Signature of Examining	g Physician or Healthcare Professi	onal	Date



RESPIRATORY PROTECTION Fit-Testing Form

A respirator fit test must be completed annually for individuals wearing respirators. Completed fit-testing forms are kept on file by the Safety Officer.

Name: Job Title:				
Department:	Facility:			
Last 4 digits of SSN: Supervisor Name:				
EMPLOYEE	STOP HERE			
Requirements:			YES	NO
Was the employee medically cleared by a healthcare p	rofessional?			
Does the employee wear glasses?				
Does the employee have facial hair that will interfere w	vith the respirator se	al?		
Does the employee have other attributes that will inter	rfere with the respira	itor seal?		
Has the employee received respiratory protection train	ning?			
Respirator Information				
Respirator Type: 🗆 N95 🗆 Half facemask 🗀 F	Full facemask 🔲 🛭	PAPR 🗆 SCBA	4	
Make: Model:				
Size: Use: \square Daily \square Occasionally \square Rarely				
Fit-Testing Fit-Testing				
Method: Saccharine Bitrex Irritant Si	moke \square Quantit	ative	10-	
Activities:		Pa	ass	Fail
Positive pressure fit check				
Negative pressure fit check				
Normal breathing				
Deep breathing				
Head moving side to side				
Head moving up and down				
Recitation of Rainbow Passage				
Fit-tester Signature:		Date:		
Employee Signature:		Date		