

CHAPTER 4

ADDITIONAL HANDLER EMPLOYER REQUIREMENTS

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All WPS requirements are effective January 2, 2017 unless identified for a delayed implementation of January 2, 2018.

Chapter 2: Requirements for Agricultural Employers of Workers or Handlers presented the WPS protections agricultural employers must provide to workers and handlers. This chapter describes the additional protections that agricultural employers are required to provide to their handlers.

The requirements in this section are for handler employers. As an agricultural employer, you are a handler employer when you employ handlers directly or through labor contractors.

Handlers must be a minimum of 18 years old.



TRAINING PESTICIDE HANDLERS

Owners of agricultural establishments and their immediate families are exempt from handler training requirements of the WPS. See Chapter 6: Exemptions and Exceptions. In addition, certified crop advisors (acknowledged as appropriate in writing by the EPA, or a State or Tribal agency responsible for pesticide enforcement) and currently certified pesticide applicators are exempt from WPS worker and handler training requirements.



You are not a handler employer if you hire a commercial pesticide handler or use a commercial pesticide handling establishment to apply pesticides on your agricultural establishment and none of your employees conduct any handling tasks.

Review key requirements of handler training 170.501

The annual training requirements for handlers and workers are presented in Chapter 2: Requirements for Agricultural Employers of Workers or Handlers. The following is a review of the key requirements of WPS training for handlers:

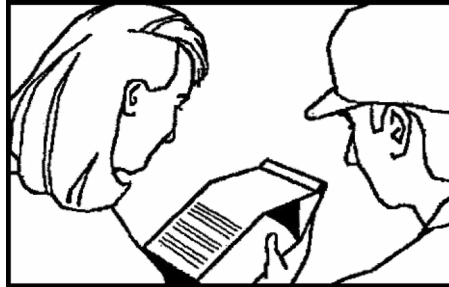
- **There is no grace period for WPS training!**
- Before any handler performs any handler task, the handler employer must ensure that each handler has completed WPS training within the last 12 months, unless the handler is currently:
 - Certified as an applicator of restricted-use pesticides, or
 - Certified or licensed as a crop advisor by a program acknowledged as appropriate in writing by EPA or the State or Tribal agency responsible for pesticide enforcement. 170.501(b)
- Train handlers every 12 months. 170.501(a)
- Only qualified trainers (described in Chapter 2) may provide training and must be present during the entire training program to respond to questions. 170.501(c)(1) & (4)
- Provide training in a language or manner the handlers can understand, such as using a translator. 170.501(c)(1)
- Present training using EPA-approved materials either orally from written materials or audio-visually. 170.501(c)(1)
- Keep training records for 2 years. 170.501(d)(1)
- Provide training records to handler employees upon request. 170.501(d)(2)
- All training requirements are effective January 2, 2017 EXCEPT the expanded training content which is effective six months after EPA announces the availability of training materials **but not earlier than January 2, 2018.** 170.501(c)(3)

INFORMATION THAT MUST BE PROVIDED TO HANDLERS

In addition to providing the WPS handler training and protections covered in Chapter 2: Requirements for Agricultural Employers of Workers or Handlers, the handler employer must also provide handlers with the information below, in a manner they can understand, before they perform any handler activity.

Labeling information 170.503(a)(1) & (2)

The handler must either read, or be informed of, all sections of the pesticide product labeling applicable to the safe use of the pesticide, including label use directions and restrictions. **The handler must be given this information in a manner they can understand.** The labeling must be available to the handler at all times during handler activities.



To explain a WPS concept “in a manner handlers can understand” means the information may need to be read, or written in a different language, provided with a hands-on demonstration to “show” the topics, use graphics, allow time for questions and answers, or whatever mechanism is successful in communicating with employees.

Option: Handlers may be allowed to read the labeling themselves, if they are able to read and understand it thoroughly.

Application-specific information 170.503(a)(3)

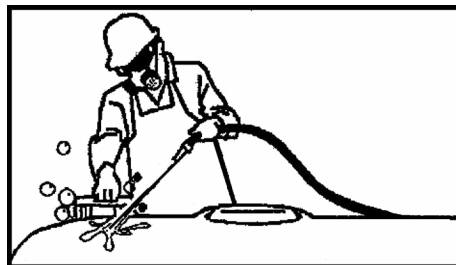
Handlers must be made aware of any entry restrictions, AEZs and REIs that may apply to the activities being performed by the handler.

Pesticide application equipment 170.309(i) & (j)

A handler employer must ensure that:

- Handlers are instructed in the safe operation of equipment used to mix, load, transfer, or apply pesticides before they use the equipment. 170.309(i)
- Each day before using any equipment to mix, load, transfer or apply pesticides, the equipment is inspected for leaks, clogged nozzles, worn or damaged parts and equipment is repaired or replaced before it is used.

170.309(j)



In addition to providing handlers with the general pesticide safety training, an agricultural employer must give handlers establishment-specific information described in Chapter 2: Requirements for Agricultural Employers of Workers or Handlers. 170.503(b)

REQUIREMENTS FOR HANDLERS AND HANDLER EMPLOYERS DURING PESTICIDE APPLICATIONS



Owners and their immediate family members acting as handlers must comply with these requirements when applying pesticides on their establishment.

Agricultural employers must comply with certain requirements during pesticide applications to protect workers and other persons, such as bystanders. This section describes other WPS requirements during pesticide applications that directly affect handlers and handler employers. Agricultural employers who employ handlers (i.e., handler employers) and handlers themselves must comply with these requirements.

Employers and handlers must comply with these requirements.

Do not let pesticides contact workers or any persons 170.505(a)

The handler employer and the handler must ensure that no pesticide is applied so as to contact, directly or through drift, any worker or other person, other than an appropriately trained and equipped handler involved in the application. This is a requirement for both handlers and handler employers and it is also a labeling requirement the pesticide applicator must comply with. 170.505(a)

Suspend pesticide applications 170.505(b)

The application exclusion zone (AEZ) is described in Chapter 3 in terms of the agricultural employer's responsibilities to keep workers and others out of the treated area and AEZ during pesticide applications.

Effective January 2, 2018, there is a different AEZ requirement that applies to pesticide handlers making pesticide applications. Specifically, the handler making a pesticide application must **temporarily suspend** the application if any worker or other person (other than an appropriately trained and equipped handler involved with the application) is in the:

- AEZ for outdoor production applications, or
- Area required to be free of workers or others during enclosed space production applications.

The "do not contact" requirement is not limited by distance or the boundaries of the establishment, so it applies to workers and other persons whether they are on or off the agricultural establishment and regardless of how far away they are from the application.

The handler requirement to suspend the application applies if a worker or other person is in any portion of the AEZ. In this situation, the applicator must temporarily suspend the application and may not proceed until the applicator can ensure that the pesticide will not contact any persons that are in the AEZ, including areas that extend beyond the boundary of the establishment.

Effective January 2, 2017, agricultural employers must keep workers and other persons out of the AEZ.

An agricultural employer may not allow a pesticide to be applied, or a suspended application to be resumed, while any worker or other person on the establishment is in the treated area or within the AEZ.

Monitor handlers using highly toxic pesticides 170.505(c)

If a pesticide product that has the skull-and-crossbones symbol on the front panel of the pesticide product label is being used, a handler employer must ensure that the handler is monitored visually or by voice communication at least every 2 hours.



Communicate continuously with handlers using fumigants in enclosed spaces 170.505(d)



When a handler is using a fumigant pesticide product in an enclosed space production area, a handler employer must ensure that the handler maintains continuous visual or voice contact with another handler stationed immediately outside of the enclosed space. The handler stationed outside of the enclosed space must have immediate access to and be able to use the PPE required by the fumigant product labeling for applicators in case there is a need to assist or rescue the handler making the application.

Fumigant – Any pesticide product that is a vapor or gas, or forms a vapor or gas on application, and whose method of pesticidal action is through the gaseous state.

Fumigants will most likely have label restrictions that are more restrictive than WPS including the label-required Fumigant Management Plan.

Remember: If the pesticide product labeling contains specific instructions or requirements that conflict with the requirements of the Worker Protection Standard, follow the instructions or requirements on the labeling.

PERSONAL PROTECTIVE EQUIPMENT (PPE) FOR HANDLERS

Handler employer and handler responsibilities 170.507(a) & (b)

On the pesticide product labeling, PPE for handling activities is listed in the “Hazards to Humans” section.

Handler employers must provide the PPE that is required by the pesticide product labeling for the handler to use. The PPE provided must be clean and in proper working condition. For the purposes of WPS, long-sleeved shirts, short-sleeved shirts, long pants, short pants, shoes and socks are considered standard attire and do not have to be provided by the handler employer even though such work clothes may be required by a pesticide product labeling as PPE.

Handlers are individually responsible for following the pesticide labeling directions and wearing the clothing and PPE required by the pesticide product labeling. The “use” of any pesticide product must be consistent with the label directions or it is a violation of federal law.

PPE terminology 170.507(b)

For clarification, the following terms are interpreted as to their meaning for PPE when required by pesticide product labeling:

“**Chemical-resistant PPE**” must be made of material that allows no measurable movement of the pesticide being used through the material during use.

“**Chemical-resistant apron**” must be a chemical-resistant apron that covers the front of the body from mid-chest to the knees.

“**Chemical-resistant footwear**” means one of the following types of footwear must be worn:

- Chemical-resistant shoes.
- Chemical-resistant boots.
- Chemical-resistant shoe coverings worn over shoes or boots.

“**Chemical-resistant headgear**” must be either a chemical-resistant hood or a chemical-resistant hat with a wide brim.

“**Chemical-resistant suit**” must be a loose-fitting, one- or two-piece chemical-resistant garment that covers, at a minimum, the entire body except head, hands, and feet.

Shoes or boots must be labeled “chemical-resistant.” Sandals and cloth or leather shoes or boots are NOT chemical resistant.

Very few pesticides require handlers to wear chemical-resistant suits because of the high potential for heat stress.

“**Coveralls**” must be loose-fitting, one- or two-piece garments that cover, at a minimum, the entire body except head, hands, and feet.

- When the pesticide label requires coveralls to be worn, it means **cloth** garments as described above. They are *not* required to be chemical-resistant. If full body chemical-resistant protection is required, the label will specify that a handler must wear a chemical-resistant suit instead of coveralls.

“**Gloves**” must be the type specified on the pesticide product labeling.

- Gloves made of leather, cotton, or other absorbent materials may not be worn while performing handler activities unless gloves made of these materials are listed as acceptable for such use on the pesticide product labeling.
- Separable glove liners may be worn beneath chemical-resistant gloves, unless the pesticide product labeling specifically prohibits their use. Separable glove liners are defined as separate glove-like hand coverings, made of lightweight material, with or without fingers. Work gloves made from lightweight cotton or poly-type material are considered to be glove liners if worn beneath chemical-resistant gloves. Separable glove liners may not extend outside the chemical-resistant gloves under which they are worn. Chemical-resistant gloves with non-separable absorbent lining materials are prohibited.
- If used, separable glove liners must be discarded immediately after a total of no more than 10 hours of use or within 24 hours of when first put on, whichever comes first. The liners must be replaced immediately if directly contacted by pesticide. Used glove liners must not be reused. Contaminated liners must be disposed of in accordance with any Federal, State, or local regulations.

“**Protective eyewear**” means one of the following types of eyewear:

- Goggles,
- Face shield,
- Safety glasses with front, brow, and temple protection, or
- Full-face respirator.

“**Waterproof**” must be made of material that allows no measurable movement of water or aqueous solutions through the material during use.

Use, cleaning and maintenance of PPE 170.507(c) & (d)

To provide protections to handlers in the use, cleaning and maintenance of PPE, the handler employer must ensure that:

- PPE is used correctly for its intended purpose and is used according to the manufacturer's instructions.
- All PPE is inspected for leaks, holes, tears, or worn places before each day of use. Any damaged equipment must be repaired or discarded.
- All PPE is cleaned according to the manufacturer's instructions or pesticide product labeling instructions before each day of reuse. In the absence of any such instructions, PPE must be washed thoroughly in detergent and hot water.
- All washed PPE is dried thoroughly before being stored or reused.
- All clean PPE is stored separately from personal clothing and apart from pesticide-contaminated areas.
- Contaminated PPE is made unusable as clothing or unavailable for any use by anyone, if the PPE cannot or will not be cleaned properly.
- Any coveralls or other absorbent materials that have been drenched or heavily contaminated with a pesticide that has the signal word "DANGER" or "WARNING" on the pesticide label are not reused and are disposed of in accordance with any applicable laws or regulations.
- Any person who handles contaminated PPE must wear the gloves specified on the pesticide product labeling for mixing and loading the product(s) of the contaminant(s).
- Contaminated PPE is kept separately from non-contaminated PPE, other clothing or laundry, and washed separately from any other clothing or laundry.
- Any person who cleans or launders PPE is informed of all the following:
 - That such equipment may be contaminated with pesticides and there are potentially harmful effects from exposure to pesticides.
 - The correct way(s) to clean PPE and how to protect themselves when handling such equipment.
 - Proper decontamination procedures that should be followed after handling contaminated PPE.
- Handlers have a place(s) away from pesticide storage and pesticide use areas where they may:
 - Store personal clothing not worn during handling activities.
 - Put on PPE at the start of any exposure period.
 - Remove PPE at the end of any exposure period.
- Handlers are not allowed or directed to wear home or to take home employer-provided PPE contaminated with pesticides.

Any person handling contaminated PPE must use the most protective gloves identified on any of the products which contaminated the PPE.

Heat-related illness 170.507(e)

When a WPS-labeled pesticide product requires the use of PPE for a handler activity, appropriate measures must be taken to prevent heat-related illness. This may include knowing the heat and humidity work conditions, altering time of work hours to avoid or limit working in the hottest/most humid situations, providing adequate water breaks and cool-down periods, allowing removal of PPE when not required, etc.

Visit OSHA's web site for useful information about occupational heat exposure and how to avoid heat stress: <https://www.osha.gov/SLTC/heatstress/>

Exceptions to PPE required by pesticide product labeling**PPE exception allowed for body protection** 170.607(a)-(c)

- A chemical-resistant suit may be substituted for coveralls. If a chemical-resistant suit is substituted for coveralls, any labeling requirement for an additional layer of clothing beneath the coveralls is waived.
- A chemical-resistant suit may be substituted for a chemical-resistant apron.

Boots. If chemical-resistant footwear with sufficient durability and a tread appropriate for wear in rough terrain is not obtainable, then leather boots may be worn on such terrain.

Gloves. If chemical-resistant gloves with sufficient durability and suppleness are not obtainable, then during activities with plants with sharp thorns, leather gloves may be worn over chemical-resistant glove liners. However, once leather gloves are worn for this use, thereafter they must be worn only with chemical-resistant liners and they must not be worn for any other use.

PPE exception allowed when using closed systems 170.607(d)

When a closed system is used to transfer pesticide products, both of the following conditions must be met in order to use PPE that is different from the PPE required by the pesticide product labeling for a closed system:

1. The closed system must be able to remove the pesticide from its original container and transfer the pesticide product through connecting hoses, pipes and couplings that are sufficiently tight to prevent exposure of handlers to the pesticide product, except for the negligible escape associated with normal operation of the system; or when loading intact, sealed, water soluble packaging into a mixing tank or system, **and**
2. All of the requirements for an agricultural employer or commercial pesticide handler employer must be met, and
 - Each closed system must have written operating instructions that are clearly legible and include:
 - o Operating procedures for use, including the safe removal of a probe,
 - o Maintenance, cleaning and repair,
 - o Known restrictions or limitations relating to the system, such as incompatible pesticides or sizes/types of containers or closures that cannot be handled by the system,
 - o Any limits on the ability to measure a pesticide, and
 - o Special procedures or limitations regarding partially-filled containers.
 - The written operating instructions for the closed system must be available at the mixing or loading site and must be made available to any handlers who use the system.
 - Any handler operating the closed system must be trained in its use and operate the closed system in accordance with its written operating instructions.
 - The closed system must be cleaned and maintained as specified in the written operating instructions and as needed to make sure the system functions properly.
 - All PPE specified in the pesticide product labeling is immediately available to the handler for use in an emergency.
 - Protective eyewear must be worn when using closed systems operating under pressure.

If the conditions of (1) and (2) are met, the following exceptions to labeling-specified PPE are permitted:

- Handlers using a closed system to mix or load pesticides with a signal word of “DANGER” or “WARNING” may substitute the following, instead of the PPE specified on the pesticide product label:
 - o Long-sleeved shirt,
 - o Long pants,
 - o Shoes and socks,
 - o Chemical-resistant apron,
 - o Protective eyewear, and
 - o Protective gloves specified on the labeling for handlers for the labeling-specified PPE.

- Handlers using a closed system to mix or load pesticides other than those with a signal word of “DANGER” or “WARNING” may substitute the following, instead of the PPE specified on the pesticide product label:
 - Protective eyewear,
 - Long sleeved shirt,
 - Long pants, and
 - Shoes and socks.

PPE exception allowed for enclosed cabs 170.607(e)

If a handler applies a pesticide from inside a vehicle’s enclosed cab and all of the PPE required by the pesticide product labeling for applicators is immediately available and stored in a sealed container to prevent contamination, handlers may substitute a long-sleeved shirt, long pants, shoes and socks for the labeling-specified PPE for skin and eye protection.

- If a particulate filtering respirator (NIOSH approval number prefix TC-84A) (including a particulate filtering facepiece respirator, which used to be called a dust/mist or particulate filtering respirator) is required by the pesticide product labeling for applicators, the applicator does not have to wear that respirator inside the enclosed cab if the enclosed cab has a properly functioning air ventilation system which is used and maintained in accordance with the manufacturer’s written operating instructions.
- If any other type of respirator is required by the pesticide labeling for applicators, then that respirator must be worn inside the enclosed cab. See Respirator section on the next page.

Handlers must wear the applicator PPE required by the pesticide product labeling if they exit the cab within a treated area during an application or when a REI is in effect. Once PPE is worn in a treated area, it must be removed before reentering the cab to prevent contamination of the cab.

PPE exception allowed for aerial applications 170.607(e) & (f)

Wearing chemical-resistant gloves when entering or leaving an aircraft used to apply pesticides is optional, unless such gloves are required on the pesticide product labeling. If gloves are brought into the cockpit of an aircraft that has been used to apply pesticides, the gloves must be kept in an enclosed container to prevent contamination of the inside of the cockpit.

Handlers applying pesticides from an open cockpit aircraft must use the PPE specified in the pesticide product labeling for use during an application, except that chemical-resistant footwear need not be worn. A helmet may be substituted for chemical-resistant headgear. A helmet with a face shield lowered to cover the face may be substituted for protective eyewear.

Persons occupying an enclosed cockpit may substitute a long sleeved shirt, long pants, shoes, and socks for labeling-specified PPE.

An enclosed cab is defined as a cab with a nonporous barrier that totally surrounds the occupant(s) of the cab and prevents dermal contact with pesticides that are being applied outside of the cab.

Although a dust/mist filtering respirator is an outdated designation, some pesticide product labels still refer to this type of respirator and are included in the exception allowed for enclosed cabs.

A carbon filter is not a requirement for the enclosed cab to qualify for the exemption; only a properly functioning air ventilation system. Any ventilation system with a standard air filter is acceptable. No special filter requirements must be met.

Under the enclosed cockpit exception, respirators and gloves are not required to be worn in enclosed cockpits.

Respirators – requirements & recordkeeping 170.507(b)(10)



Self-contained breathing apparatus (SCBA)*

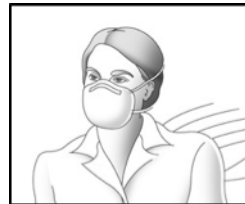
The WPS adopted certain Occupational Safety and Health Administration (OSHA) provisions that require handler employers to provide medical evaluations, fit testing, and training to handlers when using pesticide products that require use of a respirator. This includes particulate filtering facepiece respirators (formerly known as dust/mist respirators). These requirements ensure that handlers who are using pesticides that require use of a respirator are provided with a comparable level of protection to OSHA’s respiratory protection requirements.

The goal of the respirator requirements is to ensure the handler:

- Is physically capable of wearing a respirator,
- Receives the intended protection by having the respirator fit properly, and
- Knows how to use the respirator correctly.



Half-mask air-purifying respirator*



Filtering facepiece*



Full-facepiece air-purifying respirator*

Whenever a respirator is required to be worn by the pesticide product labeling, the correct respirator specified by the label must be used. Prior to using a respirator, the handler employer must provide the handler with the following:

- Medical evaluation,
- Annual fit testing, and
- Annual respirator training.

The handler employer must keep records of the medical determinations (proof of medical evaluations), fit testing and respirator training for 2 years from the date conducted.

**A respirator is intended for use by one person only.
Respirators should not be shared by multiple individuals.**

*Graphics from the OSHA Small Entity Compliance Guide for the Respiratory Protection Standard: <https://www.osha.gov/Publications/3384small-entity-for-respiratory-protection-standard-rev.pdf>

Medical evaluation 40 CFR 170.507(b)(10)(iii) & 29 CFR 1910.134

Using a respirator may place a physiological burden on handlers that could cause injury if the wearer has certain health problems or medical conditions. This burden varies with the type of respirator worn, the job and conditions in which the respirator is used, and the medical status of the handler.

A medical evaluation must be conducted to determine whether the handler is physically able to use a respirator before the handler is fit tested or required to use the respirator.

The handler employer must identify a physician or other licensed health-care professional (PLHCP) to perform the confidential medical evaluation using a medical questionnaire or exam. **The medical evaluation must be done at no cost to the employee.** The questionnaire may be provided by the PLHCP and must be based on OSHA's Part A of Appendix C to 1910.134. The questionnaire is also available in Spanish. See Appendix D: Contacts and Additional Resources.

Prior to providing the questionnaire to the handler, the handler employer must complete the following information for the PLHCP:

- The type and weight of respirator that the handler will use.
- How long and how frequently the handler will use the respirator.
- How much physical work the handler will do while using the respirator.
- Other PPE the handler will use.
- The temperature and humidity extremes of the working environment.

Handlers must complete a confidential medical questionnaire during normal working hours or at a time and place convenient to the handler.

The handler must understand the questions on the medical questionnaire. The handler employer must provide a telephone number for the PLHCP to the employee in case they have questions. ***The handler's responses to the medical questionnaire must not be reviewed by the handler employer and must be provided directly to the PLHCP.***

The PLHCP's final medical determination must be based on information covered by the questionnaire. This information can be obtained by evaluating written responses or by conducting a medical examination that covers all the areas included in the questionnaire. The handler must be given an opportunity to discuss the questionnaire and/or examination results with the PLHCP.

A PLHCP may include any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

The handler employer is responsible for any costs associated with these additional medical assessments. However, the employer has the option of not allowing the handler to undergo further evaluation. If that is the case, the employer cannot allow that handler to participate in any handler activities that require the use of a respirator.

The requirement for a medical evaluation applies to all respirators, regardless of the type, level of protection, or whether it is tight-fitting or loose-fitting.

The handler is to either deliver the questionnaire directly to the PLHCP or seal it in an envelope and mail it directly to the PLHCP.

There are online services that conduct respirator medical evaluations. Be sure to select one that is qualified to operate in your state.

A medical evaluation is required one time unless another medical evaluation is required for any of the following reasons:

- The medical determination (medical release) is only good for a specified length of time (often 1, 2 or 3 years).
- The employee reports medical signs or symptoms related to respirator use.
- The PLHCP, a supervisor, or the program administrator recommends a re-evaluation.
- Fit-test or other program information indicates a need for re-evaluation.
- When changes in the workplace increase respiratory stress on an employee.
- The initial medical examination demonstrates the need for a follow-up medical examination.

The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

Documentation

The PLHCP will send the handler employer and the handler a written medical determination (medical release) of the medical evaluation results. A handler cannot use a respirator until this written medical determination is received allowing such use. The determination will include the following information:

- Whether the employee is medically able to use a respirator.
- Any restrictions on the employee's use of the respirator.
- The need for follow-up medical evaluations .
- Verification that the PLHCP has given the employee a copy of the written medical determination.

Recordkeeping

Maintain a copy of the written medical determination (medical release) for at least 2 years, or until a subsequent medical evaluation is conducted.

All other information regarding the medical evaluation is strictly confidential and is restricted to only the employee and the PLHCP.

Annual fit testing 40 CFR 170.507(b)(10)(i) & 29 CFR 1910.134(f)

The purpose of a fit test is to ensure that the respirator forms an adequate seal with a handler's face so the respirator provides the intended inhalation exposure protection.

Handlers must be fit tested for **each type of respirator** specified by the pesticide product labeling which they will be using before using the respirator and every 12 months after that. The fit test must be conducted using the exact make, model, style and size of respirator that the handler uses. If any of that changes, the handler must be fit tested with the new respirator.

Fit testing must follow OSHA protocols. With respirators, one size does not fit all. Two fit-test methods are available to determine the correct fit for most tight-fitting facepieces.

- Qualitative fit test (QLFT). This inexpensive, easy-to-perform test relies on the respirator user's response to a test agent such as banana oil, saccharin, or irritant smoke. If the user detects the agent while wearing the respirator, the facepiece-to-face seal is not successful and the test fails. A user who cannot successfully complete the test must be tested with another face piece, make, size, or brand.
 - This method does not require specialized equipment or a trained person to conduct the test however, the person administering this test must be able to prepare test solutions, calibrate equipment, perform test properly, recognize invalid tests and ensure test equipment is in proper working order.
- Quantitative fit test (QNFT). An instrument samples the concentration of a test agent in the ambient atmosphere and inside the user's facepiece. With this information a quantitative fit factor can be calculated that indicates how well the facepiece fits the user; the higher the number the better the fit. This method is more accurate than a qualitative test but also more expensive. The QNFT requires special equipment, and a trained person must conduct the test.

Fit testing must be conducted annually and whenever there is a change in the respirator facepiece make, model, style, or size, or if the handler has a physiological change that affects the seal between the respirator's facepiece and the user's face. OSHA's protocols to ensure fit tests are done properly (Appendix A of 29 CFR 1910.134) are to be followed. These protocols may be found at: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9780.

The requirement for fit testing applies to the use of tight-fitting respirators and does not apply to the use of loose-fitting respirators.

Particulate filtering facepiece respirators are required to be fit tested. Particulate filtering facepiece respirators must be equipped with a sealable surface to enable the respirator to be fit tested.

As an example, if a handler uses a particulate filtering facepiece respirator when using one pesticide and a half-face respirator with organic vapor cartridges when using a different pesticide, the handler must be fit tested for both respirators.

A handler employer is allowed to conduct the fit test for their handlers or they may also use an outside party that may have different respirator makes, models, styles and sizes that may be needed to ensure the handlers can be properly fit.

Recordkeeping

A written record of the fit test must be maintained for 2 years and contain:

- Name of handler tested,
- Type of fit test performed,
- Make, model and size of the respirator tested,
- Date of the fit test, and
- Results of the fit test:
 - Pass/fail for qualitative fit test.
 - Fit factor and strip chart recording or other record of the test results for a quantitative fit test.

Respirator seal check

A seal check is not a fit test!

Anyone using a tight-fitting respirator must perform a respirator seal check before using it to ensure an adequate seal is achieved each time the respirator is put on. There are different ways to check respirator seals including a positive pressure check, a negative pressure check, or following the manufacturer's recommended check method. A seal check is not a fit test!

How to check the seal of tight-fitting respirators

Positive-pressure check:

1. Block the exhalation valve cover with the palm of your hand.
2. Exhale gently into the facepiece, creating a slight positive pressure.
3. If you can feel air leaking under the facepiece, reposition the facepiece and repeat steps 1 and 2 until you have an effective seal.

Negative-pressure check:

1. Cover the inlet openings of the cartridges or canisters with palms of your hands and inhale gently so that the facepiece collapses.
2. Hold your breath for about 10 seconds. The seal is effective if the facepiece stays collapsed.
3. If the facepiece expands or you can feel air leaking under the facepiece, reposition it and repeat steps 1 and 2.

Annual respirator training 40 CFR 170.507(b)(10)(ii) & 29 CFR 1910.134(k)(1)(i)-(vi)

The requirement for respirator training applies to all respirators, regardless of the type, level of protection, or whether it is tight-fitting or loose-fitting.

Handlers must be provided with training in the use of the respirator specified on the pesticide product labeling and demonstrate knowledge of the following:

- 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 select cartridges and canisters and know the schedule for changing,
- 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,
- Respirator maintenance and storage procedures, and
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.

Respirator retraining is required annually and when:

- Workplace conditions change,
- A new type of respirator is used, or
- Inadequacies in the employee's knowledge or use indicate the need to retrain.

Recordkeeping

A written record of the respirator training must be maintained for 2 years and should contain:

- Name and signature of handler trained,
- Date of training,
- Trainer's name, and
- Training topics.

Respirator change-out schedules 170.507(d)

When particulate filtering respirators are used, the filters or the filtering facepiece itself must be replaced before further respirator use when one of the following conditions is met:

- When breathing resistance becomes excessive.
- When the filter element has physical damage or tears.
- According to manufacturer's recommendations or pesticide product labeling, whichever is more frequent.
- In the absence of any other instructions or indications of service life, at the end of eight hours of cumulative use.

When gas or vapor removing respirators are used, the gas or vapor removing canisters or cartridges are to be replaced before further respirator use when one of the following conditions is met if there is no end-of-service-life indicator on the cartridge or canister:

- At the first indication of odor, taste, or irritation.
- When breathing resistance becomes excessive.
- When required according to manufacturer's recommendations or pesticide product labeling instructions, whichever is more frequent.
- When the maximum use time is reached as determined by the handler employer's respiratory protection program.
- In the absence of any other instructions or indications of service life, at the end of eight hours of cumulative use.

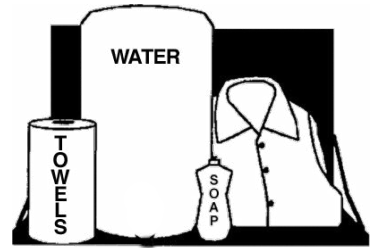
If a handler has facial hair that comes between the sealing surface of the facepiece and the handler's face or that interferes with valve function, the handler cannot use a respirator that has a tight-fitting facepiece.

If there is an end-of-service-life indicator on the cartridge or canister, replace the cartridge or canister when indicated.

DECONTAMINATION SUPPLIES FOR HANDLERS

Handler employers must provide decontamination supplies, as described below, to handlers who are doing handling tasks for routine washing, emergency decontamination and eye flushing.

170.509(a)-(d)



When must the supplies be provided?

- **Handlers:** the duration of the handling task and until PPE is removed.

What supplies must be provided?

- **Water** — as specified below. The water must be of a quality and temperature that will not cause illness or injury when it contacts the skin or eyes or if swallowed. If a water source is used for mixing pesticides, it cannot be used for decontamination without additional precautions taken to prevent contamination of the water with pesticides (e.g., back-flow prevention device, air gap, etc.).
- **Soap and single use towels** — enough for handlers' needs. **Hand sanitizers or wet towelettes do not meet the requirement for soap or towels.**
- **Clean change of clothes**, such as one-size-fits-all coveralls, to put on if the handlers' clothes are contaminated and need to be removed right away.

How much water must be provided?

Clean running water definitely meets the requirement. However, if it is not available, the following amounts must be met:

- **Handlers:** 3 gallons or more per handler of water is required at the start of the work period.
- **Emergency eye flushing station:** emergency eye flushing supplies must be provided at any site where handlers are mixing or loading a pesticide that requires protective eyewear or are mixing or loading any pesticide using a closed system operating under pressure. The supplies that must be available are:
 - A system capable of delivering gently running water at a rate of at least 0.4 gallons per minute for at least 15 minutes, or
 - At least 6 gallons of water in containers suitable for providing gently running water for eye flushing for 15 minutes. The container(s) must be able to dispense a gentle steady flow of water.

Additionally, when applying a pesticide that requires protective eyewear, 1 pint of water must be immediately available to each handler (applicator) in a portable container (on the applicator's person or in the application equipment being used).

When required, the eye flushing supplies at mix/load sites must be immediately available to the handlers (mixers/loaders) and the pint of eye flush water must be immediately available to the handler (applicator).

Where must routine decontamination supplies be located?

The water for routine cleaning, soap, single use towels and change of clothes must be located together and must be:

- Reasonably accessible to handlers (within 1/4 mile or at the nearest vehicular access),
- Outside of any treated area or an area under an REI unless supplies (soap, single-use towels, clean change of clothing and routine decontamination water) are all contained within a pesticide protected closed container (except if running water is available, it does not have to be in the container),
- At any mixing or loading site, and
- At the site where PPE is removed.

Exceptions:

For a pilot who is applying pesticides aurally, the decontamination supplies must be at the aircraft's loading site or in the aircraft.

