California’s Respiratory Protection Regulations for Pesticide Handlers

Title 3 CCR Section 6739

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California Department of Pesticide Regulation
Worker Health and Safety Branch
Industrial Hygiene Services
Respiratory Protection Regulations

- Over 5 million workers wear respirators in USA
- Federal OSHA Standard
  - 29 CFR 1910.134
- Cal-OSHA
  - 8 CCR 5144
- CDPR
  - 3 CCR 6739

# Types of Respirators

## Filtering Facepiece

| Negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium. |

**NOTE:** Respirators must be NIOSH approved!
### Types of Respirators

<table>
<thead>
<tr>
<th>Tight Fitting</th>
<th>Loose Fitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>A respiratory inlet covering that forms a complete seal with the face.</td>
<td>A respiratory inlet covering that forms a partial seal with the face</td>
</tr>
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## Types of Respirators

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<tr>
<th>Air Purifying Respirator (APR)</th>
<th>Supplied Air Respirator</th>
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<td>• Used in known, unknown, and environments that are immediately dangerous to life and health (IDLH)</td>
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### Air Purifying Respirator (APR)
- Filters the air
- Used where chemicals and concentrations are known
- Removes specific air contaminants
- Negative Pressure

### Supplied Air Respirator
- Provides breathing air
- Used in known, unknown, and environments that are immediately dangerous to life and health (IDLH)
- Positive Pressure
Types of Respirators

Powered Air Purifying Respirator (PAPR)

- Battery operated
- Uses blower
- Forces ambient air through air-purifying elements to the inlet covering
- Can be tight- or loose-fitting
# Filters, Cartridges, Canisters

## Particulate
- HEPA (high efficiency particulate aerosol)
- N, R, P Oil Resistance
- 95%, 99%, 100%

## Chemical
- Specific or combination of chemicals
- Adsorption to charcoal
- Color coded
## Color Coding for NIOSH Approved Respirator Cartridges and Canisters

*ALWAYS Consult the Pesticide Label for Respirator and Cartridge Selection*

<table>
<thead>
<tr>
<th>Used for:</th>
<th>Assigned Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Vapors</td>
<td>BLACK</td>
</tr>
<tr>
<td>Ammonia</td>
<td>BRIGHT GREEN</td>
</tr>
<tr>
<td>Acid Gasses</td>
<td>WHITE</td>
</tr>
<tr>
<td>Organic Vapors (OV) and Acid Gasses</td>
<td>YELLOW</td>
</tr>
<tr>
<td>Organic Vapors (OV), Ammonia, Acid Gasses</td>
<td>OLIVE/BROWN</td>
</tr>
<tr>
<td>High Efficiency (HE) Filter, P100 Filters</td>
<td>MAGENTA</td>
</tr>
<tr>
<td>Organic Vapors <strong>AND</strong> High Efficiency (HE) Filter, P100 Filters</td>
<td>BLACK MAGENTA</td>
</tr>
<tr>
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Title 3 CCR, Section 6739: Respiratory Protection

https://www.cdpr.ca.gov/docs/legbills/calcode/030302.htm#a6739
Scope of Regulations

Applies to workers required to wear respiratory protection.

Requirements from:
- Labels
- Permit Conditions
- Regulatory Requirements
- Employer Policy
Organization of Section 6739

(a) General Requirements
(b) Voluntary Use
(c) Selection of Respirators
(d) Medical Evaluation
(e) Fit Testing
(f) Facepiece Seal Protection
(g) IDLH
(h) Cleaning and Disinfecting
(i) Emergency Respirators
(j) Inspection and Repair

(k) Breathing Air Quality
(l) Identification of filters, cartridges, and canisters
(m) Training
(n) Program Evaluation
(o) End of Service Life
(p) Recordkeeping
(q) Medical Evaluation Form
(r) Voluntary Use Information
(s) Medical Recommendation
6739 (a) **General Requirements**

Must develop a **written program** with **worksite-specific procedures** when respirators are necessary or required by the employer.

**HS-1513:** [http://www.cdpr.ca.gov/docs/whs/pdf/hs1513.pdf](http://www.cdpr.ca.gov/docs/whs/pdf/hs1513.pdf)
6739 (a) General Requirements

Must update program as necessary to reflect changes in workplace conditions that affect respirator use conditions.

Must be reflected in written program!
Elements that must be in the program:

a) Selection
b) Medical evaluation
c) Fit testing
d) Proper use for routine and emergency
e) Maintenance, cleaning and care
f) Ensure breathing air quality
g) Training in respiratory hazards (IDLH if applicable)
h) Training in donning, doffing, limitations
i) Program evaluation
Respirator Selection for Pesticides

[6739 (a), (c) ]

Read the Label!

Personal Protective Equipment (PPE)
Applicators and other handlers (other than Mixers and Loaders) must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
- Protective eyewear
- Chemical Resistant Gloves - Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®)
  
  - A dust mist NIOSH-approved respirator with any N, R, P, or HE filter

Mixers and Loaders must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
  
  - A dust mist NIOSH-approved respirator with any N, R, P, or HE filter
- Chemical Resistant Gloves - Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton)
- Chemical resistant apron
- Face shield

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

http://edis.ifas.ufl.edu/pi061
6739 (a), (d) Medical Evaluation

• Employer must provide a medical evaluation to determine worker’s ability to use a respirator **before fit testing and use**

• Must be done by a Physician or other Licensed Health Care Provider (PLHCP)
  - **Definition**: An individual whose legally permitted scope of practice allows him/her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by subsection (d), *Medical evaluation*
6739 (a), (d), (s) Medical Evaluation

- Must be done at **no cost** to the worker
- How often?
  - Before use and fit testing
  - When there is a physical change in worker that warrants exam
  - As often as PLHCP recommends
- Questionnaire and medical recommendation forms in HS-1513

**Appendix 5**
Medical Evaluation Questionnaire

The completion of this form, or a form that obtains the same information as the medical questionnaire by each respirator-wearing employee and the review of the completed form by a physician or licensed health care provider is mandatory for all employees whose work activities require the wearing of respiratory protection.

The medical evaluation questionnaire shall be administered in a manner that ensures the employee understands and documents its content. The person administering the questionnaire shall offer to read or explain any part of the questionnaire to the employee in a language and manner the employee understands. After giving the employee the questionnaire, the person administering the questionnaire shall ask the following question of the employee: “Can you read and complete this questionnaire?” If the answer is affirmative, the employee shall be allowed to confidentially complete the questionnaire. If the answer is negative, the employer must provide either a copy of the questionnaire in a language understood by the employee or a confidential reader, in the primarily understood language of the employee.

**Appendix 6**
Medical Recommendation Form
6739 (a), (e) **Fit Testing**

- Before a worker uses any *tight-fitting respirator*, the worker must be fit tested.
  - If using a loose-fitting respirator (hood or helmet) do **not** need to be fit tested.
- Fit testing must be done with the same make, model, style, and size of respirator that will be used.
• Workers using **tight-fitting facepiece respirators** must pass an appropriate qualitative fit test or quantitative fit test:
  – prior to initial use,
  – whenever a different respirator facepiece (size, style, model or make) is used, and
  – at least **annually** thereafter
6739 (f) Facepiece Seal Protection

- Face-to-facepiece seal must not be obstructed
- Nothing must interfere with the face-to-facepiece seal (glasses, goggles, PPE, facial hair)

![Facial Hairstyles and Filtering Facepiece Respirators](image-url)
Definitions:

**User Seal Check (Fit Check)**

An action conducted by the respirator user to determine if the respirator is properly seated to the face. This is to be performed **every time** the respirator is donned.
6739 (j) Inspection and Repair

(k) Breathing Air Quality

- Inspect before each use
- Elasticity, original parts, no extra holes
- Breathing air must be grade D or better
6739 (g) Immediately Dangerous to Life or Health (IDLH)

- Fumigant-confining structures are IDLH
- “Watchman” needed outside the IDLH area

6739 (i) Emergency Respirators

- Must be immediately accessible.
- Clearly marked as containing emergency respirator.
- Stored according to manufacturer’s recommendation.
- Stored such that it is safely accessible during emergency conditions.
• Clean your respirator…
  – As often as necessary when issued for exclusive use
  – Before being worn by different individuals (clean AND disinfect!)
  – After each use when used for emergencies, fit testing, and training (clean AND disinfect!)
• Store to prevent damage
Employers must provide effective training to workers who are required to use respirators. Training must be understandable to workers. Training conducted annually. Program evaluation annually. Any findings that require modification of the written program must be implemented within 30 days.
End-of-Service Life

Hierarchy of replacement:

1. Odor, taste or irritation (element failure/saturation)
2. ESLI triggered
3. All disposable ffp, at the end of the workday
4. According to pesticide-specific label directions
5. According to pesticide-specific respirator manufacturer directions
6. Absent any pesticide-specific directions, at the end of the workday or, as according to manufacturer, on excessive breathing resistance.
6739 (p) Recordkeeping

• Available to DPR on request
• Written program available during use and for 3 years after it changes
• Must maintain records of…
  – Medical recommendation
  – Fit Test
  – Training
  – Evaluation
• HS-1513 has all of this
Employers should use this flowchart to help comply with the requirements for voluntary use of respirators in 3 CCR section 6739(b) when handling pesticides.

Is respiratory protection required by any of these?

- Label
- Permit condition
- Regulation
- Employer Policy

**YES**

REQUIRED!

Employer must have a full written program pursuant to 3 CCR section 6739

**NO**

VOLUNTARY!

Minimum Written Program that Must include:
- Medical Clearance
- Maintenance, cleaning, and storage
- Voluntary Respirator Use Posting (3 CCR section 6739(r))

Elastomeric

Employer Provided

Filtering Facepiece

Voluntary Respirator Use Posting (3 CCR section 6739(r))

Employee Provided
Appendix 7
Voluntary Respirator Use Posting
From 3 CCR 6739 (r)

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and follow all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designated to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

5. Air filtering respirators DO NOT SUPPLY OXYGEN. Do not use in situations where the oxygen levels are questionable or unknown.
Pesticide Safety Information Series

A-5 or N-5

Protecting Yourself from Breathing Pesticides on Farms

Pesticide spray can stay in the air that you breathe. The best way to avoid breathing pesticides is to wear a protective mask called a respirator.

When should I wear a respirator?
You must wear a respirator anytime the pesticide label requires one. You may need to wear a respirator if the pesticide label says, “Avoid breathing vapor or mist.”
Your employer must give you, at no cost, a respirator when it is needed. You must wear it.

Can anyone use a respirator?
Breathing through a respirator can be very hard for some people. People with problems such as high blood pressure, heart disease, or long disease may not be able to use a respirator safely. If you are handling a pesticide and are supposed to use a respirator, your employer must give you a copy of the respirator manufacturer’s instructions for use. You must read these instructions before you use a respirator. The doctor may examine you or review a questionnaire your employer will have you fill out. The doctor must give a report to your employer and give you a copy about whether or not you can wear a respirator safely before you use one and your employer must follow the doctor’s written orders.

If I have a mustache or a beard, can I wear a respirator?
If you have a beard, a wide mustache, or long sideburns, a regular respirator cannot protect you properly because the mustache, beard,

YOU MUST ALWAYS WEAR a respirator anytime the pesticide label requires one.

Protecting Yourself From Breathing Pesticides in Non-Agricultural Settings

Pesticide spray can stay in the air that you breathe. The best way to avoid breathing pesticides is to wear a protective mask called a respirator.

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If I have a mustache or a beard, can I wear a respirator?
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N95 Alternatives for Pesticide Handling

Due to PPE shortage during the current COVID-19 crisis, DPR has compiled a list of respirators and exposure controls that offer the same or better protection for employees who are required to use N95 respirators.

If the label requires an N95, you may also use these respirators:

Filtering facepiece respirators with the following designations:
- N99, N100
- R95, R99, R100
- P95, P99, P100

*If product contains oil, do not use “N” series masks*

Elastomeric respirators (half-face or full-face) with particulate filters or combination cartridge/filters:
- N, R, or P filters with 95, 99, or 100 efficiency
- Filter can be part of cartridge, an attachment, or stand-alone
- Some chemical cartridges can also filter particulates, which is indicated by a magenta or purple color on the cartridge

*If product contains oil, do not use “N” series*

Powered Air Purifying Respirators (PAPRs):
- All PAPR cartridges have HEPA filters that provide more protection than N95 respirators

Self-Contained Breathing Apparatus (SCBA):
- Not the same thing as SCUBA
- See 3 CCR 6739 (k) for air quality requirements

Can’t find a respirator?

1. Ask your PCA if there is a product that doesn’t require respiratory protection
2. Mix/load pesticides in a closed system† (see 3 CCR 6746 and 6738.4 (c) & (d))
3. Apply pesticides from an enclosed cab† (see 3 CCR 6738.4 (e))

NOTE: #3 is only applicable to particulate respirators and only if the enclosed cab has a functioning ventilation system

† the required PPE must still be available

Respirators must be NIOSH approved. Before wearing any respirator required by label, permit conditions, regulations, or employer policy, users must be medically able to wear a respirator, be trained, and fit tested. Employers must have a written respiratory protection program as detailed in 3 CCR 6739. https://www.cdpr.ca.gov/docs/whs/ind_hygiene_ppe.htm
Gloves for Handling Pesticides
Due to PPE shortage during the current COVID-19 crisis, DPR has compiled some glove-safety tips.

Caring for Reusable Gloves
1. Inspect your gloves before putting them on. **Never wear damaged chemical resistant gloves!**
2. Wash your hands with soap and water before you put them on.
3. Wear your gloves as required by label or regulation when performing handler tasks.
4. Wash your gloved hands with soap and water before removing gloves.
5. Dry and store your clean gloves away from pesticides, in a cool dry place, and away from direct sunlight.
6. After removing gloves, wash your hands with soap and water. **Do not touch contaminated gloves with bare hands!**

If you use reusable gloves, they must be same material as label-required disposable gloves.

Chemical resistant gloves must be **at least 14 mil thick**, so substitute for thicker gloves of the same material.

† except laminate and polyethylene gloves

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Be sure to follow 3 CCR 6738. For more information go to: https://www.cdpr.ca.gov/docs/whs/ind_hygiene_ppe.htm
Questions?

Contact Information:

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California Department of Pesticide Regulation
Worker Health and Safety Branch
Industrial Hygiene Services
References and Resources

- https://www.cdpr.ca.gov/docs/whs/pdf/hs1513.pdf
- https://www.cdpr.ca.gov/docs/whs/psisenglish.htm
- https://www.cdc.gov/niosh/topics/respirators/default.html