



# MONTANA WEATHERIZATION TRAINING CENTER

## Workplace Safety for Small Businesses

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-Authorized OSHA 1926  
outreach trainer

 MONTANA STATE UNIVERSITY | EXTENSION MONTANA WEATHERIZATION TRAINING CENTER

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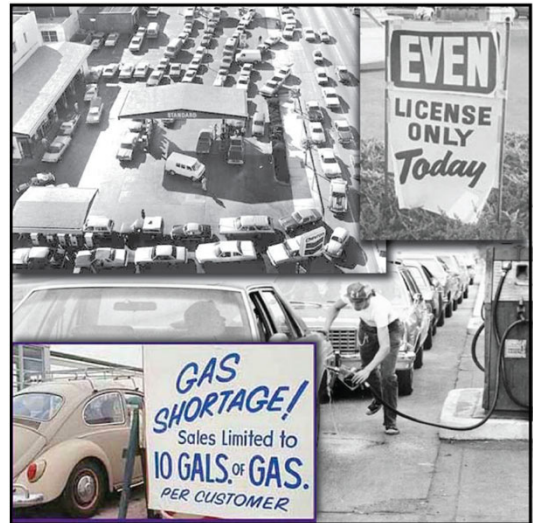
## The Weatherization Assistance Program (WAP) and The Weatherization Training Center's (WTC's)

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## What is the Weatherization Assistance Program?

Federally funded program that was started in the 1970's as a reaction to the oil crisis.

Administered by the Department of Energy (DOE)



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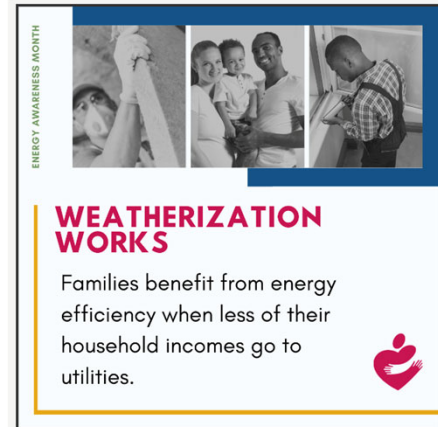
## Mission:

To reduce energy costs for low-income families, particularly for the elderly, people with disabilities, and children, while ensuring their health and safety.



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- **Supports 8,500 jobs**
- **35,000 homes every year**
- **\$372 annual energy savings per home, every year**
- **7 million families since 1976**



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Who does the Weatherization Work?

Community Action Agencies in all States



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## Weatherization Work Done at Houses

- Blower door-directed air sealing
- Attic insulation
- Dense-pack
- Sidewall insulation
- Heating and cooling equipment repair and replacement
- Duct sealing and modification
- Electric base load measures
  - LEDs
  - Refrigerator replacement
  - Water heater modification & replacement



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To get the work done correctly it was recognized by the DOE that they needed a comprehensive training program so in the 1990's the DOE started setting up Weatherization Training Centers, WTC's



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# Introduction to OSHA



**MONTANA**  
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EXTENSION

**MONTANA WEATHERIZATION  
TRAINING CENTER**

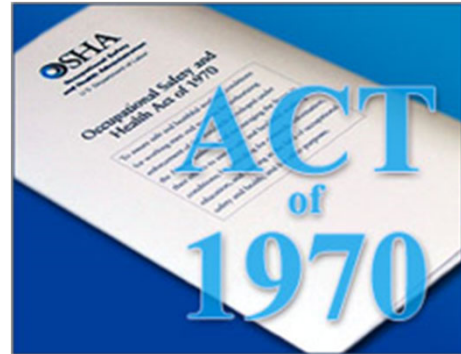
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## The OSH Act and Workers Rights

On December 29, 1970, President Nixon signed the OSH Act

Employees have the right to:

- A safe and healthful workplace
- Know about hazardous chemicals
- Report injury to employer
- Complain or request hazard correction from employer
- Training
- Hazard exposure and medical records
- File a complaint with OSHA
- Participate in an OSHA inspection
- Be free from retaliation for exercising safety and reporting concern.



<https://www.osha.gov/laws-regs/oshact/completeoshact>

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## The Role of OSHA

### **General Duty Clause** (1)29 USC 654

- (a)Each employer --
  - (1)shall furnish to each of their employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to their employees;
  - (2)shall comply with occupational safety and health standards promulgated under this Act.
- (b)Each employee
  - (1)shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

<https://www.osha.gov/laws-regs/oshact/section5-duties>

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# The Role of OSHA

## General Duty Clause –letters of interpretation

The following elements are necessary to prove a violation of the General Duty Clause:

- a. The employer failed to keep the workplace free of a hazard to which employees of that employer were exposed;*
- b. The hazard was recognized;*
- c. The hazard was causing or was likely to cause death or serious physical harm; and*
- d. There was a feasible and useful method to correct the hazard.*

<https://www.osha.gov/laws-regs/standardinterpretations/2003-12-18-1>

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# Reporting Injuries

## Report a Fatality or Severe Injury

- All employers are required to notify OSHA when an employee is killed on the job or suffers a work-related hospitalization, amputation, or loss of an eye.
- A fatality must be reported within 8 hours.
- An in-patient hospitalization, amputation, or eye loss must be reported within 24 hours.

[www.osha.gov/report](http://www.osha.gov/report)

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# OSHA Inspections and Violations

VIOLATION TYPE	PENALTY
<p><b>WILLFUL</b> A violation that the employer intentionally and knowingly commits or a violation that the employer commits with plain indifference to the law.</p>	OSHA may propose penalties of up to \$70,000 for each willful violation, with a minimum penalty of \$5,000 for each willful violation.
<p><b>SERIOUS</b> A violation where there is substantial probability that death or serious physical harm could result and that the employer knew, or should have known, of the hazard.</p>	There is a mandatory penalty for serious violations which may be up to \$7,000.
<p><b>OTHER-THAN-SERIOUS</b> A violation that has a direct relationship to safety and health, but probably would not cause death or serious physical harm.</p>	OSHA may propose a penalty of up to \$7,000 for each other-than-serious violation.
<p><b>REPEATED</b> A violation that is the same or similar to a previous violation.</p>	OSHA may propose penalties of up to \$70,000 for each repeated violation.

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# OSHA offers consultations to employers

U.S. DEPARTMENT OF LABOR

## OSHA

MENU

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[Home](#) > [On-Site Consultation](#)

## On-Site Consultation Program

Primarily for smaller businesses, no-cost, confidential [consultations help employers](#) identify and address hazards and establish or improve safety and health programs. Services are provided by consultants from state agencies or universities.

Book a No-Cost Consultation

<https://www.osha.gov/consultation>



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[1926.16\(a\)](#) The prime contractor and any subcontractors may make their own arrangements with respect to obligations which might be more appropriately treated on a jobsite basis rather than individually. Thus, for example, the prime contractor and his subcontractors may wish to make an express agreement that the prime contractor or one of the subcontractors will provide all required first-aid or toilet facilities, thus relieving the subcontractors from the actual, but not any legal, responsibility (or, as the case may be, relieving the other subcontractors from this responsibility). **In no case shall the prime contractor be relieved of overall responsibility for compliance with the requirements of this part for all work to be performed under the contract.**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.16>

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## Workplace Safety



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## Don't Become a Statistic

Prior to OSHA, in 1970, 38 workers died every day in America. With the OSH act in effect, by 2020 the number of daily deaths dropped to 13.

That is a 65% reduction of worker deaths in 50 years.

Fat/Cat report

- <https://www.osha.gov/fatalities>

Labor Statistics

- <https://www.bls.gov/news.release/pdf/cfoi.pdf>

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## Employee Right to Complain

- Encourage an open dialogue where safety is considered a valid concern.
- No single person can know all the rules and regulations and possible dangers on a work site. It takes a team effort to identify and mitigate workplace hazards.
- Employers must utilize workers as their eyes on the job, since the workers have the perspective to identify hazards.
- Refusing to mitigate known hazards brought up by employees is considered a willful violation of OSHA guidelines.

[https://www.youtube.com/watch?v=k70Ln7gRWDE&ab\\_channel=USDepartmentofLabor](https://www.youtube.com/watch?v=k70Ln7gRWDE&ab_channel=USDepartmentofLabor)

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## Toolbox talks, workplace culture

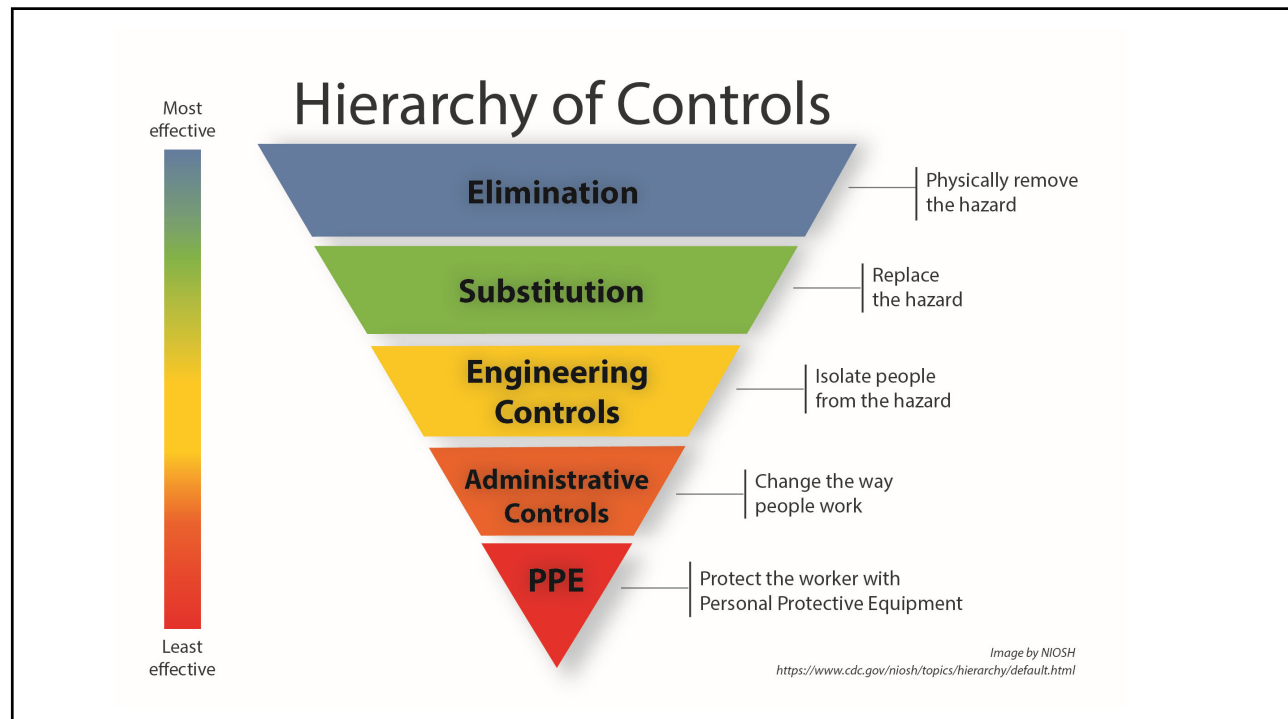
Setting aside time on a schedule for discussion about the workday and any possible concerns shows employees that there is a time and place and a proper channel for concerns and complaints. But any imminent dangers should be brought up immediately.



Training organizations have templates and specialized training available.

<https://oshatraining.com/more-osh-training-resources/toolbox-talks-for-osh-safety-and-health/>

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## Written Safety Plans

<https://www.osha.gov/safety-management/step-by-step-guide>

- Respiratory Protection plans  
<https://www.osha.gov/sites/default/files/2019-03/respiratoryprotection.pdf>
- Fall Protection Plans
- Confined Space and Rescue

<https://www.osha.gov/complianceassistance/sampleprograms>



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## OSHA Authorized Training Outreach

Montana Weatherization Training Center offers 1926 Construction OSHA-10 and OSHA-30 courses as well as EPA RRP and LIRA course.



[weatherization.org](http://weatherization.org)

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Weatherization Hazards

MONTANA  
WEATHERIZATION  
Assistance Program

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# Weatherization Assistance Program

The Weatherization Assistance Program is a nationwide federally funded program. Funded by DOE and NREL, they make the technical decisions on how weatherization should be applied to residences. The funding is directed through SCEP (State and Community Energy Programs) to the 50 states, Puerto Rico, and Guam. The states fund and direct CAA's (Community Action Agencies) to use weatherization funds to help low-income citizens reduce their energy burden.



<https://www.energy.gov/scep/wap/weatherization-assistance-program>

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**MECHANICAL MEASURES**

- Clean, tune, repair, or replace heating and/or cooling systems.
- Install duct and heating pipe insulation.
- Install programmable thermostats and other HVAC controls.
- Repair/replace water heaters.
- Install water heater tank insulation.
- Insulate water heating pipes.
- Install solar water heating systems.
- Install waste heat recovery devices.

**HEALTH & SAFETY MEASURES**

- Complete combustion appliance safety testing.
- Repair/replace vent systems to ensure combustion gas draft safely outside.
- Install mechanical ventilation to ensure adequate indoor air quality.
- Assess fire hazards. Install smoke and carbon monoxide alarms when needed.
- Evaluate mold/moisture hazards.
- Perform incidental safety repairs when needed.

**BUILDING SHELL MEASURES**

- Install wall, floor, ceiling, attic, and/or foundation insulation.
- Complete Blower Door Testing.
- Perform air sealing.
- Repair/replace primary windows/doors.
- Install storm windows/doors.
- Install window film/solar screens/window louvers and awnings.
- Repair minor roof and wall leaks prior to attic or wall insulation.

**ELECTRIC BASELOAD MEASURES**

- Install motor controls.
- Install efficient light sources.
- Replace refrigerators and freezers with energy efficient models.

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## Weatherization Safety Standards

Weatherization agencies must follow OSHA, local codes, as well as directives from the Department of Energy, the Department of Health and Human Services, and even the office of the Governor and President.

Required safety trainings include:

- Asbestos awareness and identification
- LSW (Lead Safe Weatherization) or EPA RRP (Renovate Repair Paint)
- Combustion safety testing
- Basic electrical safety and testing
- Respiratory Fitness and fit testing

<https://www.energy.gov/scep/wap/articles/weatherization-program-notice-22-7-weatherization-health-and-safety>

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## Suspected Asbestos Contaminated Material's



*Robert Robson of Dearborn, Michigan, installed Zonolite Vermiculite Insulation in his attic in one afternoon. This insulation will save him many dollars in fuel costs.*



[MSU guide to asbestos awareness](https://apps.msueextension.org/montguide/guide.html?sku=MT202007HR)

<https://apps.msueextension.org/montguide/guide.html?sku=MT202007HR>

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# Vermiculite



Vermiculite is a naturally occurring mineral used in construction, insulation and gardening products including potting soil and kitty litter. It looks like shiny, small pieces of popcorn, and is usually light-brown or gold in color.

Vermiculite came from mines mainly in Libby, Montana. Much of the Libby vermiculite was used as attic insulation. It was sold under the product name Zonolite.

Vermiculite may or may not contain asbestos.

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## Montana Weatherization Training Center



10  $\mu\text{g}/\text{dl}$  - Loss in IQ, hearing and growth problems.

This is the Center For Disease Control, CDC, *Level of Concern*



**One Grain of Sugar**

$\div 1000 =$

**One Microgram**



**1 Deciliter = About  
 $\frac{1}{2}$  cup**

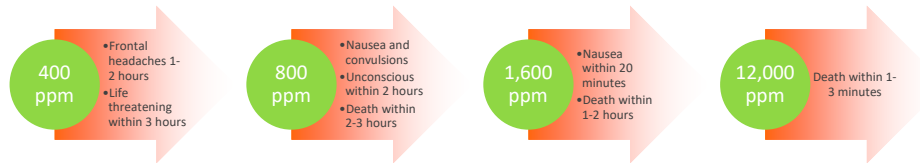
Once lead gets into the body, it stays in the blood for several months, and can be stored in the bones for 30 years or more.



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## Carbon Monoxide (CO) Poisoning



- Symptoms include headache, fatigue, dizziness, drowsiness, or nausea.
- During prolonged or high exposures, symptoms may include vomiting, confusion, and collapse, loss of consciousness, and muscle weakness.
- OSHA PEL (permissible exposure limit) is less than 50ppm over an 8 hour period.

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## Electrical and High Temperature

### BEFORE YOU BEGIN

- ▶ Check for live knob and tube wiring; dam off when possible, or replace with modern wiring.



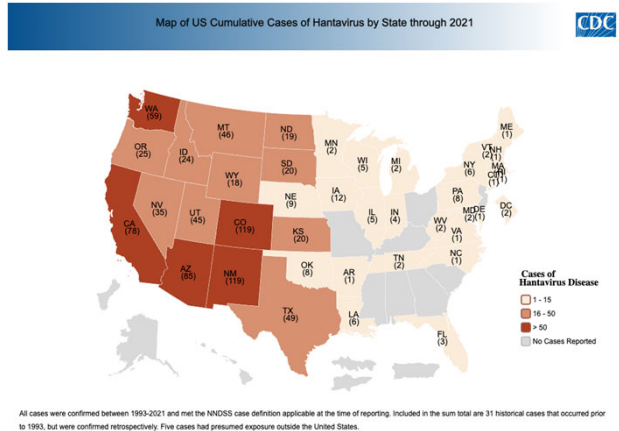
- ▶ Cover junction boxes and attach flag for visibility.



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## Other dangers (there are a lot)

- Client behavior
- Hantavirus
- Rabid pets or animals in crawlspaces
- Mold, radon, second-hand smoke, airborne diseases
- Hazardous materials / chemicals
- Confined spaces
- Falls, slips
- Caught in between



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