



# WEATHERIZATION

## HOME, HEALTH AND SAFETY GUIDELINES



**OKLAHOMA**  
DEPARTMENT of COMMERCE

*MORE THAN JUST ENERGY SAVINGS*

# TABLE OF CONTENTS

<b>Heating and Cooling Systems</b>	p. 4
<b>Asbestos</b>	p. 5
<b>Biological Contaminants and Unsanitary Conditions</b>	p. 6
<b>Building Structure and Roofing</b>	p. 7
<b>Combustion</b>	p. 7
<b>Electrical</b>	p. 8
<b>Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids and Other Air Pollutants</b>	p. 9
<b>Fuel Leaks</b>	p. 10
<b>Gas Ovens, Stovetops and Ranges</b>	p. 10
<b>Hazardous Household Products and Waste</b>	p. 11
<b>Injury Prevention of Occupants and Weatherization Workers</b>	p. 12
<b>Lead Poisoning</b>	p. 13
<b>Mold and Moisture</b>	p. 14
<b>Occupant Health and Safety Concerns</b>	p. 15
<b>Pests</b>	p. 16
<b>Radon</b>	p. 17
<b>Smoke Detectors, Carbon Monoxide Alarms and Fire Extinguishers</b>	p. 18
<b>Indoor Air Quality</b>	p. 19
<b>Additional Resources</b>	p. 20

---

*The mission of the Oklahoma Weatherization Program is to reduce energy costs for low income families by providing cost effective energy efficiency upgrades while ensuring the health and safety of our clients. The program is sponsored by the United States Department of Energy, the Oklahoma Department of Human Services, and the Oklahoma Department of Commerce.*

*This booklet was designed to increase awareness of ways to keep a home healthy and how to avoid commonly found health and safety issues in residential homes. When weatherization work is completed on your home, some healthy and safety issues may be identified that will be discussed with you.*

*Please note this booklet is not an exhaustive list of all possible health and safety issues that can be found in a home, and it is important to follow up with a doctor for any health related concern.*

# Heating Systems

It is important to keep the heating system in your home clean and well maintained to ensure maximum energy savings, safety, and comfortableness in the home.

- **Inspect, clean or change air filters** once a month; a dirty filter increases energy costs and can create an unhealthy atmosphere.
- **Clean return air grill** and keep it free of obstructions.
- **Avoid closing doors to rooms.** The system works less efficiently and causes house pressure differences.



## **Avoid using unvented (or “vent-free”) space or water heating appliances.**

Unvented appliances leave combustion pollutants like carbon monoxide (CO) in the house. These appliances can also generate large amounts of moisture, which can create mold or rotting issues. Unvented heaters require special precautions. Consider the potential indoor air pollution effects if you use an unvented kerosene or gas space heater. A persistent yellow-tipped flame is generally an indicator of improper adjustment and increased pollutant emissions. While a space heater is in use, open a door from the room where the heater is located to the rest of the house and open a window slightly. Keep a working carbon monoxide (CO) detector in the room when you are operating an unvented (or vent free) gas appliance.

Because of the high health and safety risk posed by unvented space heaters or water heating appliances, federal regulations do not allow any weatherization work to proceed on a home that has an unsafe unit. It must be removed prior to any work being completed on the home – for both your family’s safety and the safety of the crews.

# Cooling Systems

It is important to keep the cooling system in your home clean and well maintained to ensure maximum energy savings, safety, and comfortableness in the home.

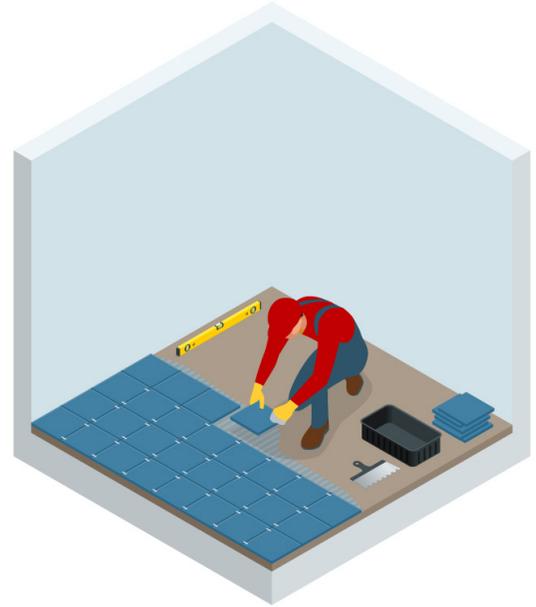
- Have a licensed technician clean indoor and outdoor air conditioning coils. Dirty coils reduce the system’s ability to cool.
- Have a licensed technician check air conditioner’s refrigerant level. Too much or too little refrigerant will make your system less efficient.
- Inspect, clean or change air filters once a month.



# Asbestos

## What is it?

Asbestos is a group of natural mineral fibers known for their strength and fire-resistant properties, and was used in construction of homes and buildings prior to 1977. Some asbestos fibers are so small that a microscope is necessary to see them. These small fibers can be floating in the air, and we can breathe them deeply into our lungs, where they can become lodged. **Friable asbestos**, a material that crumbles easily if handled, or that has been sawed, scraped or sanded into a powder, **is more likely to create a health hazard.**



Inhaling asbestos fibers increases the chances of developing:

- lung cancer
- mesothelioma (a cancer of the lining of the body cavities)
- asbestosis, a lung condition that causes shortness of breath and coughing

**Asbestos is commonly found in** roofing and siding shingles, textured paint and in patching compounds used on wall and ceiling joints (their use was banned in 1977), attic insulation in houses built between 1930 and 1950 that may be comprised of “Vermiculite” (an asbestos containing material), artificial ashes and embers sold for use in gas-fired fireplaces, older solid fuel stove floor pads, walls and floors around wood burning stoves, older vinyl floor tiles and the backing on vinyl sheet flooring and adhesives, hot water and steam pipes, oil and coal furnaces.

## **The best thing to do with asbestos material in good condition is leave it alone!**

Generally, material in good condition will not release asbestos fibers. The mere presence of asbestos in a home or a building is not hazardous. There is no danger unless fibers are released and inhaled into the lungs. Damaged asbestos may release asbestos fibers and become a health hazard. Do not dust, sweep or vacuum debris that may contain asbestos. These steps will disturb tiny asbestos fibers and may release them into the air.

- Asbestos should be removed or repaired only by a licensed asbestos abatement professional. You can find a list of these licensed professional through the Oklahoma Department of Labor. (See Additional Resources, page 20)
- Contact the Oklahoma Department of Labor’s Asbestos Program and the Air Quality Division of the Oklahoma Department of Environmental Quality for more information.
- The Solid Waste Permitting group issues permits for asbestos disposal sites and can be reached at (405) 702-5100.

If you received weatherization services and asbestos siding was identified in your home, certain precautions might have been taken to ensure everyone’s safety, including the crew’s, during weatherization. Please visit with the weatherization workers for more information if you have any questions about whether this applies to you.

# Biological Contaminants and Unsanitary Conditions

## What are they?

There are many different biological contaminants, but they all contain living organisms or are produced by one.

**Health Effects** – Biological contaminants and unsanitary conditions contribute to unhealthy conditions in a home and cause a wide variety of diseases and illnesses.

## Here are some examples of possible biological contaminants:

- Mold
- House dust mites
- Harmful bacteria
- Household pets
- Cockroaches
- Viruses
- Rats and mice
- Plant pollens
- Excretions from animals, pests, or humans

## Reducing Exposure to Biological Contaminants:

**Keep the house clean.** Reduce house dust mites, pollens, animal dander and other contaminants by regular cleaning, including dusting, vacuuming and sweeping. A clean home is a healthier home.

**Maintenance of heating and air conditioning filters and equipment** is very important. Having a temperature controlled house is critical to keeping biological containments away.

**Pest management** should be employed to control insect and animal allergens.

**Install and use exhaust fans** that are vented to the outdoors in kitchens and bathrooms. Vent clothes dryers outdoors.

**Ventilate the attic and crawl spaces** to prevent moisture build-up.

**Humidifiers** should be cleaned according to manufacturer's instructions and refilled with fresh water daily. Evaporation trays in air conditioners, dehumidifiers and refrigerators should also be cleaned frequently.

**Water-damaged carpets** and building materials can harbor mold and bacteria and should be repaired or replaced when possible.

**Water-damaged insulation** should be removed and replaced.

# Building Structure and Roofing

Over time, building structures can become potential health and safety issues for a variety of reasons. Here are a few:

**Mold and moisture from weather** – Once mold has formed in the attic, the attic becomes a breeding ground to expand into the wall cavities.

**Collapse** – Depending on the amount of deterioration, there is a danger of structural collapse.

**Pests** – Pests like termites and mice can accelerate deterioration and will build their nests in the walls and attic.

Avoid deterioration by ensuring the exterior of the house is completely sealed.



**Roof Fall Protection** - When it becomes necessary to climb up onto your roof, there are different types of fall protection that can be implemented to keep you safe. The types of fall protection, which are in accordance with OSHA (Occupational Safety and Health Administration), can be found by visiting: [www.osha.gov/SLTC/fallprotection/standards.html](http://www.osha.gov/SLTC/fallprotection/standards.html)

## Combustion

### What is it?

All gas and other combustion appliances (cook stove, water heater, furnace, etc.) require lots of oxygen or “make-up air” to operate properly. Under certain conditions, combustion appliances can release harmful or deadly combustion pollutants into the home (commonly called combustion spillage or back drafting). Proper selection, installation, inspection and maintenance of combustion appliances are extremely important. Providing good ventilation can also reduce exposure to combustion pollutants.

### Health Effects

Appliances that are not working properly can release harmful and even fatal amounts of pollutants, especially carbon monoxide, into the living space. In addition, unvented or improperly vented appliances can add large amounts of moisture to the air, potentially resulting in both mold growth and damage to the house.

### Combustion Air and Room Pressures

A combustion appliance that doesn't have the proper amount of “make-up air” around it may struggle to work properly. For example, when an exhaust vent such as a kitchen range hood, a bathroom fan or a clothes dryer is operating in an area which is very airtight without proper “make-up air” to utilize, negative room pressures can result. This can cause back drafting or spillage. Please discuss your concerns with the weatherization team to ensure there is enough air available for appliances to operate correctly.

# Electrical

## What is it?

Electricity is both a natural and man-made energy force. It flows through different types of conductors. Electricity must have a complete path to flow or it can create a health and safety hazard to yourself or others. Here are some electrical health and safety situations that can occur:

**Improper grounding** – Grounding is the process used to eliminate unwanted voltage. Electrical equipment must be properly grounded. Grounding reduces the risk of being shocked or electrocuted. The ground pin safely returns leakage current to the ground. Never remove the ground pin of appliance plugs (the third prong) of an electrical appliance – this not only could be harmful to you – but in many cases, it will void the warranty of the appliance.



**Exposed electrical parts** – Exposed wires or terminals are hazardous and can arc or cause a fire hazard. Outer insulation on electrical cords must be intact so that there are no bare wires showing.

**Inadequate wiring** – If the installed wiring isn't the correct size for its intended purpose, the risk of overloading the circuit is greater and can cause a fire hazard.

**Overhead power lines** – Never attempt to make contact with an overhead power line. Maintain a distance of at least 10 feet between tools and equipment and overhead power lines.

**Damaged insulation** – Insulation on wiring prevents conductors from contacting each other or you.

**Overloaded circuits** – Overloaded circuits can cause fires. Use proper circuit breakers and never overload an electric outlet.

**Knob and tube wiring** – This type of electrical wiring (using porcelain insulated tubes and knobs) was used from 1880–1930. Depending on the condition of the wiring, it may be a fire hazard. Insulation cannot be installed over knob and tube wiring.

**Wet conditions** – Water increases the risk of electric shock. Always avoid using tools or appliances in wet locations.

# Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and Other Air Pollutants

## What are they?

Formaldehyde is a colorless, flammable chemical that is used in building materials and in household products. It has a strong smell. It is often used in glues and pressed-wood products.

VOCs are chemicals in the form of gas usually found in household products such as paint and cleaning products.

**Health Effects** – Headaches, organ damage, suspected relationship to cancer, allergies, dizziness, nausea, fatigue

## Storing your pollutants

- Pollutants should be stored outside of living space if at all possible.
- Keep substances in original container and make sure label is attached.
- If the container starts to leak, enclose it in a larger container, clearly labeled.
- NEVER store chemicals next to combustion appliances.
- Most items should be stored in a cool, dry place, but read label for instructions.
- Keep incompatible chemical products separated. For example, accidentally mixed HTH chlorine and motor oil can cause a fire.
- Periodically check containers for deterioration.

## Disposing your pollutants

- Check with your local waste disposal station for collection facilities and disposal information.
- Most household pollutants, including paint thinners, pesticides, herbicides, fertilizers, pool chemicals, cleansers, acids, caustics, ammunition, batteries, motor oil, antifreeze and other residentially generated materials can be dropped off at no charge during local community events. For more information or the date of the next event, call the local waste disposal station or local health department.

# Fuel Leaks

## What is it?

Fuel leaks from a gas line installed in your home can create many negative impacts including:

- Fire hazards
- Increased utility bills
- Breathing large amounts of natural gas may cause poisoning or suffocation for you, children and pets.

**If you smell gas, and are concerned you might have a leak, take the following steps immediately:**

- Turn off all gas appliances and any electric power.
- Call the gas company to locate and repair the leak.
- Open all windows and doors to clear the house out, but **do not** use fans.

## Gas Ovens, Stovetops and Ranges

**Gas ovens, stovetops and ranges can be dangerous if not used carefully.**

Make sure that all gas ovens have exhaust ventilation. It is important to exhaust all gases and moisture outside of the house. Installing a range hood that is vented to the outdoors can help ensure your family's safety and lower moisture and carbon monoxide levels that may be emitted from the stove top or oven.

**Clean gas stove tops, burner bowls and grates.**

Make sure the cooktop is cool to the touch. Remove the burner grates that cover the burners. Check to see if the grates are dishwasher safe; if so, clean them in there. Otherwise, wash in hot, soapy water, rinse and let them dry completely. If the grates require serious cleaning, using a BBQ grill grate cleaner. Newer gas cooktops have caps over the burners. Remove them, wash them in hot, soapy water, rinse and let them dry completely. Use a paper towel or cloth to wipe away any stray crumbs from the cooktop. If food is stuck around the burner's igniter, use a toothbrush to gently clear away any blockages. Squeeze a generous amount of dish soap into a big bowl or bucket and fill it with hot water. Put on dish gloves, dip a scrubber in the water and clean the cooktop surface. Carefully clean the burner knobs with the scrubber. Spray the surface down with clean water, and wipe it dry with a clean cloth or paper towel. Use a glass cleaner and paper towel or cloth to wipe down the control panel. After everything is dry, replace the burner caps and grates.

**Oven interior**

The oven interior should be cleaned three to four times each year. Spills and drips should be removed as soon as possible, as they will smoke and may eventually catch on fire. Avoid detergent/soap use inside of an oven for both self-cleaning and non-self-cleaning ovens.



# Hazardous Household Products and Waste

## What are they?

A hazardous household product or waste is any product in the home that could be potentially dangerous for the environment or people. They include, but are not limited to: bleach, lead, asbestos, fertilizers, motor oil, paint, fluorescent light bulbs, rat poison, mothballs, charcoal lighter fluid, oven cleaner, batteries, mercury thermometers, gas, oil, fuel tanks, refrigerant, wood polish, toilet and drain cleaners, shoe polish, and bug spray.

If you have household products and cleaners you want to dispose of:

- Contact your local public works departments or city government to find a safe place to dispose of products. Many communities in Oklahoma have regular collection days for household hazardous waste.
- Read the product label, it will often tell you how to dispose of it.
- Never dump or burn any products.

**Asbestos** - see information on page 5.

**Lead** - see information on page 13.

## **Cleaning up a broken fluorescent light bulb** (including CFL light bulbs)

- Shut off the central forced air heating/air conditioning (HVAC) system, if you have one.
- Collect materials (stiff paper/cardboard, sticky tape, damp paper towels/wet wipes) needed to clean up broken bulb.
- Place cleanup materials in a sealable container (plastic bag or glass jar).
- Avoid leaving any bulb fragments or cleanup materials indoors.
- For more detailed guidance on cleaning up and safely disposing of a broken CFL, please visit: [www.epa.gov/cflcleanup](http://www.epa.gov/cflcleanup).

## **Disposal of bulk fuel tanks**

- Contact your local public works departments or city government to find a safe place to dispose of a bulk fuel tank. (For example, a residential tank that holds 275+ gallons of petroleum home heating fuel or a disposable camping propane tank.)

## **Disposal of an appliance containing refrigerant** (by an individual, not by weatherization crew)

- Do not disturb any refrigerant.
- Check with your electric utility to see if a bounty program is offered in your area. A bounty program is an appliance turn-in program – typically sponsored by a local or regional utility. Because some bounty programs have required specifications for appliances (e.g., must be in working condition, of a minimum age and/or dimension), you may also need to confirm that your appliance is acceptable.
- Retailers may offer appliance pick-up and disposal services with the purchase and delivery of a new model. Others may allow you to drop off the old appliance at the retail establishment.
- Several other organizations (including retailers) will accept refrigerated appliances; some may even provide a small voucher or discount in return for appliances. Information on several of these organizations is available through EPA's Responsible Appliance Disposal (RAD) program, please visit: [www.epa.gov/rad](http://www.epa.gov/rad)

# Injury Prevention of Occupants and Weatherization Workers

In order to make the process as smooth as possible, and to ensure no injuries occur to the occupants, workers or pets, please follow these simple guidelines throughout the weatherization process:

**Secure all pets.** Even friendly pets can distract the workers and can lead to serious injuries when surrounded by tools, ladders and equipment.

**Remove any obstacles from the common walkways of your home.** The weatherization crew will be focusing on specific tasks and injury could easily occur if there are obstacles on the floors that create a trip/fall hazard.

**Remove any obstacles from the windows and doors.** The weatherization crew will be measuring windows and doors. If they cannot get to the area easily, they are risking injury.

**Remove any boxes, obstacles, etc. in the attic and/or crawlspace.** Please ensure that all storage items that may be in the attic or crawl space are removed. This enables the weatherization workers to evaluate your attic space and under your house for air infiltration, fire hazards and insulation needs.

**Please let the energy auditor and crew do their jobs with as little distraction as possible.** Please ask guests and family members not to walk through the work area if possible. We do not want anyone to trip or fall from cords/hoses the crews need to have available for their extensive diagnostic testing.

**The energy auditor may ask you to have certain things completed or resolved before the weatherization crew can come out and do their jobs.** If this happens, it will only be for your safety and for the safety of the weatherization crew. We take health and safety seriously. If we get injured, we can't continue to help our clients, so please try to keep in mind that these requests are for everyone's benefit, including your own. For example, remove any pictures from a specific wall that will receive weatherization work.

**If spray polyurethane was used in your home,** additional precautions may be necessary and should have been explained to you.



# Lead Poisoning

## What is it?

Homes built before 1978 may contain lead based paints, varnishes or finishes. Although lead is no longer used in house paint, some older homes may still have lead paint and lead in water pipes or in old materials.

Lead paint chips and debris can runoff into the soil and foundation of the home simply because there is no drainage system in place or the existing drainage system is damaged/inadequately designed. This exposes children and pets, as well as adults, to the possibility of lead poisoning if they come into contact with the contaminated dirt/soil, spreading the contamination into and throughout the home.



## Health Effects of Lead Poisoning

- Permanently damage your nervous system
- Cause hearing loss
- Result in permanent learning and behavior problems in children

## Lead Safety

- Wear nitrile gloves (not latex).
- Clean the area with a disposable mop head and wet wipes.
- Wrap all possible lead contaminated materials (including gloves and cleaning materials used) securely in plastic prior to disposal in a secured trash receptacle.

If you are concerned about lead in your home contact: call (800) 424-LEAD or visit [www.hud.gov/lead](http://www.hud.gov/lead) and [www.hud.gov/healthyhomes](http://www.hud.gov/healthyhomes).

If you received weatherization services and your home was built before 1978, and we disturbed any paint during the course of weathization work, you should have received *The Lead Safe Certified Guide to Renovate Right* (see back page for link). This will provide you with more information about lead, its health effects, and how to ensure someone working on your home is following the law and keeping your safety in mind.

# Mold and Moisture

## What is it?

Mold is a tiny spore that exists everywhere, in many different varieties. Damp environments allow mold to grow and spread throughout a home.

**Health Effects** – Mold can be very harmful and worsen allergies or asthma, particularly when mold spores are inhaled.

## Preventing mold and moisture

- Clean and repair roof gutters.
- Keep A/C drip pans clean.
- Keep indoor humidity low and monitor with a moisture meter, if possible.
- Make sure appliances are vented.
- Operate bathroom fan or open a window when taking a shower or bath, cooking or washing dishes.
- Control the temperature in your home as much as possible.
- Fix any water leaks as soon as possible.
- Standing water next to the foundation can create a mold growth into the foundation and walls of the home, so make sure the ground slopes away.

## Guttering

Install a downspout that extends a minimum of 6 feet from the house. Regular maintenance will help prevent water damage and flooding. Gutters and downspouts control the water that runs off your roof during a rainstorm, regulating the moisture content of soil surrounding your home and channeling water away from its foundation. Keep your gutters clean. If downspouts get plugged, you may develop moisture problems. Debris often collects at the downspout area, start cleaning there and work your way up. Empty the gutters at least once in the spring and in the fall.

## Yard Slope/Grade

Is your foundation higher or lower than the soil/dirt surrounding it? If your foundation is lower than the soil/dirt surrounding it, this creates foundation damage, in addition to other hazards like mold and lead poisoning. A solution to this issue is to possibly re-direct the slope of the yard to go towards the street instead of towards the home or to install guttering that extends at least 5 feet away from the foundation.

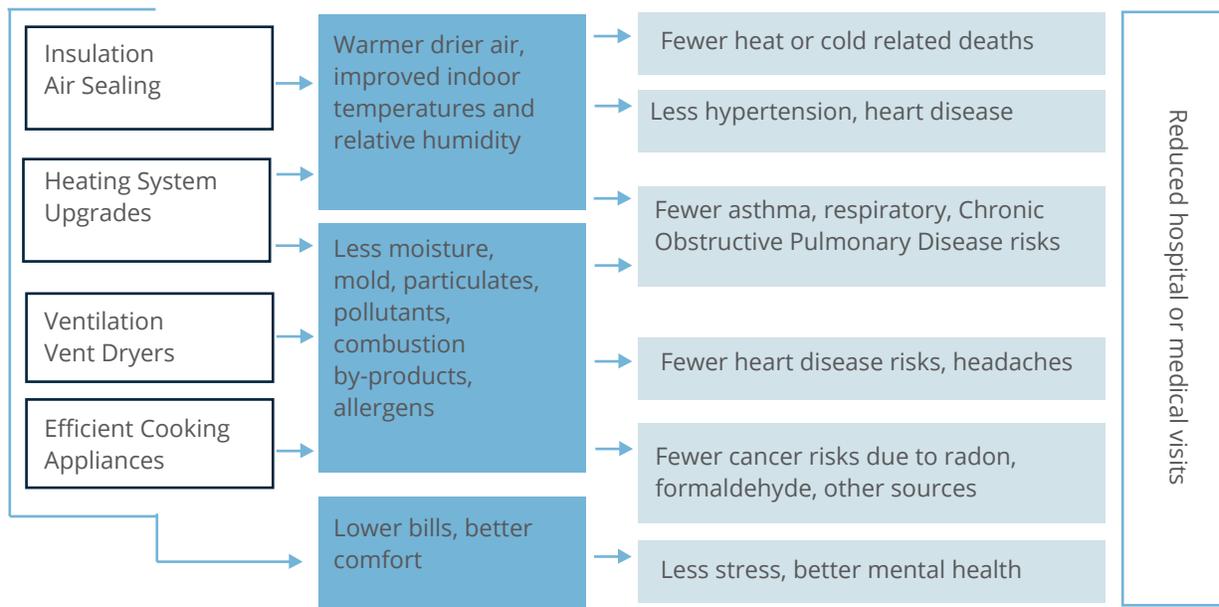
If you received weatherization services and mold and/or moisture problems were identified or suspected in your home, you should receive the Environmental Protection Agency's *A Guide to Mold and Moisture in Your Home* (see back page for link).

# Occupant Health and Safety Concerns

## What is it?

When you apply for weatherization services, your application includes an *Indoor Air Quality and Safety Checklist*. This checklist provides the weatherization crew with important information about your family's health, to ensure the work completed on your home does not worsen any health conditions your family might have. The following chart outlines some of the health benefits the Weatherization Program focuses on.

## Occupant Health and Indoor Environmental Benefits of Residential Energy Efficiency



# Pests

Pest control in a home is very important to keep a home healthy and safe. Here are some examples of common pests that can be found in the home, and the issues they might cause:

**Rodents** – Rodent droppings can cause allergic reactions and disease. More frequently, though, rodents serve as vectors, carrying bacteria such as salmonella, on their bodies and contaminate food sources, kitchen surfaces and equipment.

**Cockroaches** – Many allergens are commonly introduced in homes through cockroach saliva, droppings and the decomposing bodies of these pests. Cockroaches can also carry bacteria such as E. coli and salmonella on their bodies, which can contaminate food, cooking equipment and food surfaces.

**Ticks** – Lyme disease is transmitted by ticks, typically between May and October. It is critical to be vigilant of ticks, especially if you are in wooded areas. Symptoms of Lyme disease include a “bull’s eye” rash around the bite, flu-like symptoms and extreme fatigue. Consult a physician immediately if you suspect that you have been exposed to this disease.

**Bees and Wasps** – Aggressive in nature, these pests tend to sting repeatedly, which adds to the potential for greater skin irritation or a serious allergic reaction. Many people have a dangerous allergic reaction to the protein in a wasp’s venom.

**Ants** – Ants can be dangerous contaminants to food.

**Fleas** – Fleas can cause itchy, unsightly marks as well as severe allergic reactions. Fleas tend to travel not only on you and your pets but also rodents. If you have a rodent problem in your home, fleas may be soon to follow.

**Bed Bugs** – These parasites like to feed on human blood and tend to reside in warm houses near beds or sleeping areas.



# Radon

## What is it?

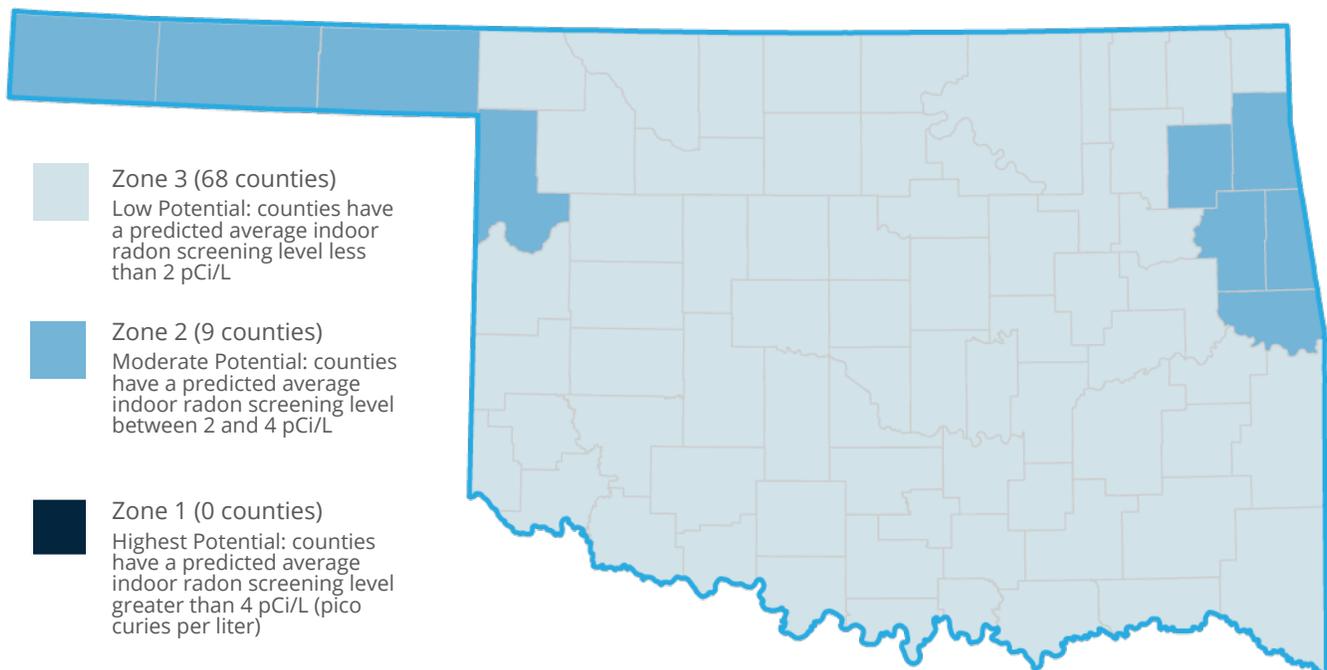
Radon is a cancer-causing, radioactive gas that is emitted naturally through the ground. Some places have a higher risk than others of exposure to radon. You can't see, smell or taste radon. It moves through the ground to indoor air in your home through cracks and other holes in the foundation, basement or crawl space. Some geographical regions have higher levels of radon than others. In Oklahoma, there are 9 counties that have moderate potential for elevated Radon levels: Adair, Beaver, Cherokee, Cimarron, Delaware, Ellis, Mayes, Sequoyah and Texas.

## Health Effects:

Radon can cause lung cancer and even death. The Surgeon General has warned that radon is the second leading cause of lung cancer in the US. If you smoke and your home has high radon levels, your risk of lung cancer is especially high.

Some preliminary studies have found that there is a very slight risk of radon increasing in homes that have had weatherization services. This is why, during the application process, you were asked to sign a radon consent form, acknowledging this risk. You should receive Environmental Protection Agency's *A Citizen's Guide to Radon* (see back page for link) at some point during the weatherization process to provide you with more information about potential radon risks. If you live in one of the 9 Oklahoma counties that have moderate potential for elevated Radon levels, additional precautionary measures will be taken when weatherizing your home to minimize the risk. These additional measures should have been marked on your consent form, and discussed with you. Ask the weatherization crew if you have any concerns or questions.

## Oklahoma Radon Map



# Smoke Detectors, Carbon Monoxide Alarms and Fire Extinguishers

Smoke detectors and carbon monoxide (CO) alarms are important safety tools that you should have in your home. They can detect harmful levels of CO and warn you of smoke to allow you time to escape before a fire erupts.

## Tips on maintaining these important detectors and alarms:

**Test your detector.** Experts recommend testing every detector in your house anywhere from once a week to once a month. All units should have an easily accessible test button.

**Check your batteries** every six months (it would be helpful to remember to do this every time you change your clocks for daylight savings) and change them every year. If a battery is starting to lose its power, the unit will usually chirp to warn you.

Replace your smoke and CO detectors every 10 years.

Do not place any detectors where they can be obstructed by furniture, draperies or near heating vents.

## Fire Extinguishers

Always have an escape route available before attempting to extinguish a fire. If things suddenly get out of control, you need to be able to quickly evacuate to a place of safety and call the fire department.

If it becomes necessary to use the fire extinguisher, remember PASS (Pull, Aim, Squeeze and Sweep.)

If you received weatherization services, it is required that weatherization crews install a digital CO alarm (regardless of fuel source) and adequate and operational smoke detectors.

# Indoor Air Quality

Did you know the air inside your home can be more harmful to your family than air outdoors? Good indoor air is smoke and CO free, and has good ventilation.

That is why the weatherization program includes appropriate ventilation installations to improve the indoor air quality. The Weatherization team is proud to follow the most current national ventilation standards, which were developed to take each individual home's details into account and meets home's ventilation needs.

**All ventilation systems must be vented to the outdoors in order to meet its intended purpose.**

- Make sure to turn on any bathroom exhaust fan when taking a shower.
- Make sure to use oven/stove exhaust fans when cooking.
- Make sure to use any kitchen exhaust fan when washing dishes and cooking.
- Follow the health and safety tips throughout the rest of the booklet to ensure that you are using and disposing of chemicals and pollutants in a safe manner.



# Additional Resources

## **United States Environmental Protection Agency**

[www.epa.gov/indoor-air-quality-iaq](http://www.epa.gov/indoor-air-quality-iaq)

## **Home Fire Safety**

<https://www.ready.gov/home-fires>

## **U.S. Department of Health and Human Services Quit Smoking**

[www.smokefree.gov](http://www.smokefree.gov)

or 1-800-QUIT-NOW (1-800-784-8669)

## **Asbestos**

[www.epa.gov/asbestos/pubs/ashome.html#4](http://www.epa.gov/asbestos/pubs/ashome.html#4)

[www.ok.gov/odol/Services/Asbestos\\_Abatement](http://www.ok.gov/odol/Services/Asbestos_Abatement)

## **Child Health Protection**

[www.epa.gov/children](http://www.epa.gov/children)

## **Occupant Health and Safety Concerns**

[www.e4thefuture.org/wp-content/uploads/2016/11/Occupant-Health-Benefits-Residential-EE.pdf](http://www.e4thefuture.org/wp-content/uploads/2016/11/Occupant-Health-Benefits-Residential-EE.pdf)

## **The Lead Safe Certified Guide to Renovate**

[www.epa.gov/sites/production/files/documents/renovaterightbrochure.pdf](http://www.epa.gov/sites/production/files/documents/renovaterightbrochure.pdf)

## **A Guide to Mold and Moisture in Your Home**

[www.epa.gov/sites/production/files/2016-10/documents/moldguide12.pdf](http://www.epa.gov/sites/production/files/2016-10/documents/moldguide12.pdf)

## **A Citizen's Guide to Radon**

[www.epa.gov/sites/production/files/2016-12/documents/2016\\_a\\_citizens\\_guide\\_to\\_radon.pdf](http://www.epa.gov/sites/production/files/2016-12/documents/2016_a_citizens_guide_to_radon.pdf)

---

The Oklahoma Weatherization team and the Oklahoma Department of Commerce hope that you, have found the information enclosed within this document informative and helpful. It is truly our goal to make your home more energy efficient, healthy, and safe!



**OKLAHOMA**  
DEPARTMENT *of* COMMERCE