2008-2009
Michigan Winter Hazards Awareness

Picture provided by Linda Horton, White Lake, 13.2 inch snowfall on New Years Day 2008.

INSIDE THIS PACKET

- **Governor's Proclamation**
- **Committee for Severe Weather Awareness Contacts**
- **Winter Hazards Sample Press Release**
- **Winter Safety Tips**
- **Winter Hazards Frequently Asked Questions (FAQs)**
- **Preventing Frozen Pipes**
- **Preventing Roof Ice Dams**
- **Preventing Flood Damage**
- **Flood Insurance**
- **Heat Sources Safety**
- **National Weather Service Contacts**

The Michigan Committee for Severe Weather Awareness was formed in 1991 to promote safety awareness and coordinate public information efforts regarding tornadoes, lightning, flooding and winter weather.

STATE OF MICHIGAN

Executive Office

Jennifer M. Granholm
Governor

CERTIFICATE OF PROCLAMATION

On behalf of the citizens of Michigan, I, Governor Jennifer M. Granholm, do hereby proclaim the week of November 9, 2008

Winter Hazards Awareness Week

Whereas, Each year in Michigan, countless people are injured or suffer property damage resulting from winter storms that bring extreme cold, freezing rain, wind, and snow; and

Whereas, Michigan citizens encounter winter hazards such as icy roads, frostbite from extremely cold temperatures, over-exertion from snow removal, and isolation within their own homes due to heavy snowfalls; and

Whereas, The use of wood, kerosene and space heaters as alternative heating methods greatly increase the probability of residential fires and carbon monoxide poisoning; and

Whereas, Inclement winter weather requires drivers to take extra precautions to ensure they reach their destinations safely; and

Whereas, The Michigan Committee for Severe Weather Awareness and other emergency management officials, in conjunction with the news media, are cooperating to educate the public about winter hazards and how to prepare for them;

Now, Therefore, be it Resolved, That I, Jennifer M. Granholm, Governor of the State of Michigan, do hereby proclaim the week of November 9, 2008, Winter Hazards Awareness Week in Michigan, and I encourage all citizens to learn more about methods of preparation for winter hazards to protect themselves, their families, and their homes during the winter season.

Jennifer M. Granholm
Governor

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November 2008

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For Immediate Release
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TIME TO PREPARE FOR WINTER HAZARDS

Lansing, Michigan – With some areas of the state experiencing near record snowfalls last year, it is important for Michigan residents to focus attention on winter safety. Heavy snow, extreme cold, ice and wind routinely affect Michigan during winter and pose dangers to life and property. According to the Michigan Department of Community Health, 37 people in Michigan died due to exposure to the cold in 2006, the last year that statistics were available.

In an effort to raise awareness about the potential dangers, Governor Jennifer M. Granholm has declared November 9 – 15, 2008, as Winter Hazards Awareness Week in Michigan. "Michigan winters can be severe, so preparedness, awareness and common sense are always important," said Capt. Thomas Sands, commander of the Michigan State Police Emergency Management and Homeland Security Division. "During Winter Hazards Awareness Week, I encourage Michigan residents to learn of the dangers associated with cold, snow and ice, as well as threats posed by the use of heat sources such as wood burning stoves, fireplaces and space heaters."

According to the Michigan Committee for Severe Weather Awareness, Michigan's temperatures for the 2007-08 winter ended near average. However, snowfall and precipitation were far from average, especially across Southern Lower Michigan. The winter ended with nearly twice as much precipitation across Southern Lower Michigan which led to near record snowfalls. Grand Rapids and Flint both had their second snowiest winters on record; Saginaw had its third snowiest winter; and Detroit finished with its fourth snowiest winter.

Winter started slowly in November with just two lake effect events. The first lake effect snow hit Upper Michigan with up to 12 inches of snowfall on November 5-6. The most significant November storm occurred on November 27 when winds gusted to 60 to 70 mph across Upper and Northern Lower Michigan. These winds combined with several inches of snow created some blizzard conditions.

The parade of winter storms started in December and did not end until mid-April. The first hit during the first few days in December and affected nearly every part of the state. Upper, Northern and Central Michigan had heavy snow of 6 to 12 inches, while sleet and freezing rain coated Southern Lower Michigan. A snow storm hit much of Southern and Central Lower on December 16, leaving widespread snow of 6 to 12 inches. The final storm of 2007 hit on December 22-23 with winds gusting to 40 to 55 mph creating nearly $400,000 in damage in Southeast Lower Michigan, and blizzard conditions across portions of Northern and West Central Lower Michigan.

The New Year started with a New Year's Eve and New Year's Day snowstorm that left much of Southern Lower Michigan with 6 to 10 inches of snow. There was a band of heavier snow from Coldwater to

Ann Arbor to Capac which produced 10 to 16 inches of snow. Another vigorous storm intensified rapidly as it passed north of Lake Superior on January 29-30. Cold air blasted into the region on very strong winds of 40 to 50 mph which produced some damage across Southeast Michigan. Temperatures hovered near zero to the single digits above zero with wind chill readings as low as 30 to 40 below zero. Occasional blinding white-out conditions in falling and blowing snow in the lake effect areas produced widespread blizzard conditions. The highest snowfall amounts were only 6 to 8 inches, but travel was heavily impacted in the lake effect snow belt regions. Roads were closed; there were numerous accidents; school and event cancellations were widespread; and there were also sporadic power outages.

February's most significant storms hit on February 6-7 and then February 9-11. The first storm left 6 to 16 inches of snow across much of Lower Michigan, with the heaviest band of 12 to 16 inch snowfalls between Interstate 96 and U.S. Highway 10. The February 9-11 blizzard ushered in on a powerful Arctic cold front that produced 40 to 50 m.p.h. winds as temperatures plummeted to around zero with wind chill readings as low as 30 to 40 below zero. Travel was again heavily impacted in the lake effect snow belt regions with some roads closed and numerous accidents. School and event cancellations were also widespread.

The snow didn't stop during the months of March and April. Snowstorms hit parts of the state on March 4-5, March 21-22, March 31-April 1, and April 10-12. The March 21-22 storm left portions of the southern third of Lower Michigan with 6 to 14 inches of snow on the first day of Spring. A storm moved into the Western Great Lakes on March 31. Snow fell heavy at times, producing snowfall totals around 12 inches over most of Upper Michigan with some isolated locations over 2 feet. In addition, winds gusting up to 50 mph near the Lake Superior shoreline resulted in blizzard conditions. The strong winds and heavy snow toppled numerous trees and resulted in sporadic power outages. The last winter storm of the year moved into the Upper Great Lakes on April 10-12. The storm dropped widespread heavy snow across Upper Michigan. The National Weather Service in Negaunee Township reported a storm total snowfall of 17.5 inches.

To prepare for a winter storm at home, the Michigan Committee for Severe Weather Awareness recommends the following:

- Keep handy a battery-powered flashlight, NOAA weather radio and portable radio, extra food (canned or dried food is best), can opener, and bottled water (at least 3 gallons per person).
- Make sure each member of household has a warm coat, gloves, hat and water-resistant boots.
- Ensure that extra blankets and heavy clothes are available.
- Keep on hand items for infant, elderly or disabled family members.
- Be aware of potential fire and carbon monoxide hazards if you plan to use an emergency heating source such as a fireplace, wood stove or space heater.

For more information on how to prepare for severe weather, visit the Michigan Committee for Severe Weather Awareness website at www.mcswa.org. The Michigan Committee for Severe Weather Awareness was formed in 1991. Its mission is to provide information to keep Michigan residents prepared when severe weather strikes.

##

Winter Safety Tips

PREPARING FOR A WINTER STORM

At home:

- Keep handy a battery-powered flashlight, NOAA weather radio and portable radio, extra food (canned or dried food is best), can opener, and bottled water (at least 3 gallons per person).
- Make sure each member of household has a warm coat, gloves, hat and water-resistant boots. Ensure that extra blankets and heavy clothes are available.
- Keep on hand items for infant, elderly or disabled family members.
- Be aware of potential fire and carbon monoxide hazards if you plan to use an emergency heating source such as a fireplace, wood stove or space heater. (See Heat Source Safety page later this packet for more information.)

Outside:

- Avoid overexertion, such as shoveling heavy snow, pushing a car, or walking in deep snow. Sweating could lead to chill and hypothermia. Cold weather also puts extra strain on the heart, so the elderly and those with heart conditions should be especially cautious when out in the cold.
- Walk carefully on snowy, icy sidewalks.
- Wear loose-fitting, lightweight warm clothing in layers, with a waterproof outer layer. Wear wool hat and mittens.
- Keep your clothes dry. Change wet socks and clothing quickly to prevent loss of body heat.
- Understand the hazards of wind chill. As wind speed increases, heat is carried away from a person's body more rapidly.

Automotive Preparedness

- Ensure the vehicle is winterized by late fall. This includes having the proper mix of anti-freeze and water in the cooling system, topping off the windshield washing solution, and checking the tire treads. Have a mechanic check the belts, hoses, tires, battery and coolant.
- Keep the fuel tank near full, as low fuel levels can cause condensation to form, degrading fuel quality and possibly causing fuel line freeze-up. Additionally, gas stations may be closed during a severe winter storm, so it is wise to fill up if warnings of an impending storm are being broadcast.
- Your car should always be equipped with emergency supplies. Keep the following items stored in a portable container:

  - A small battery powered radio (AM is sufficient) and extra batteries
  - Flashlight with extra batteries
  - Cellular phone
  - Windshield scraper
  - Jumper cables
  - Fire extinguisher
  - Maps
  - Shovel
  - Blanket and extra clothes
  - Flares
  - Bottled water and Nonperishable, high energy foods (granola bars, canned nuts, raisins, hard candy, trail mix, peanut butter and crackers)
  - First aid kit
  - Tire repair kit and pump
  - Tow chain or rope
  - Phone book and phone list
  - De-icer & extra antifreeze
  - "Call Police" or other "Help" sign

Winter Safety Tips

DURING A WINTER STORM

At home:

- To save heat, close off unneeded rooms, cover windows at night and stuff towels or rags in cracks under doors.
- Maintain adequate food and water intake. Food provides the body with energy for producing its own heat.

If travel is necessary:

- Inform someone of your destination and travel time. Take along a cell phone in case you must call for help.

If traveling and the power goes out:

- Use extreme caution when driving. If traffic signals are out, treat each signal as a stop sign – come to a complete stop at every intersection and look before you proceed.
- Do not call 9-1-1 to ask about the power outage. Listen to news radio stations for updates.

If stranded in a vehicle:

- Attach a bright cloth to your antenna to attract attention and then remain in the vehicle.
- Run the motor about 10 minutes each hour for heat. However, open the window slightly for fresh air **and make sure that the exhaust pipe isn't blocked.**
- Get attention by turning on the dome light and emergency flashers when running the engine.
- Exercise by moving arms, legs, fingers and toes to keep blood circulating and to keep warm.

If stranded outside:

- Try to stay dry and cover all exposed parts of the body.
- Prepare a windbreak or snow cave for protection from the wind. Build a fire for heat and to attract attention.
- Do not eat snow. It will lower your body temperature. Melt it first.

ANYTIME

Listen for All-Hazards NOAA Weather Radio or local radio, television and cable stations for the latest updates on hazardous winter weather.

- To ensure uninterrupted weather information, make sure the NOAA Weather Radio or other radio has a battery-operated backup and fresh batteries. A battery-operated TV is another option.
- For All-Hazards NOAA Weather Radio information, including a station near you, see the NOAA Weather Radio page on the Internet at http://www.nws.noaa.gov/nwr or contact your National Weather Service office.

Know the difference between a winter storm WATCH (conditions make the storm possible) and winter storm WARNING (the storm is headed for your area).

A blizzard WARNING means strong winds, blinding wind-driven snow, and dangerous wind chill. Avoid driving and seek shelter.

For more information on winter storms, see http://www.nws.noaa.gov/om/brochures/winterstorm.pdf.

Winter Hazards FAQs

On average, a major winter storm hits part of Michigan at least once per month between October and April. In 2006, the last year that statistics were available, 37 persons died as a direct result of severe winter weather according to local and state medical examiners and health departments. This is in addition to victims of auto accidents due to slippery roads and those who suffer heart attacks while shoveling snow.

1. **What is wind chill?**
   Wind chill is the perceived temperature resulting from the effect of wind, in combination with cold air, which increases the rate of heat loss from the human body.

2. **What is frostbite and what can you do to treat it?**
   Frostbite is damage to body tissue caused by that tissue being frozen. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes, or the tip of the nose. Frostbite varies in severity from frostnip to deep frostbite, depending on the length of exposure, temperature to which the skin is exposed and wind speed. For frostnip, place firm, steady pressure from a warm hand against the area. Also, blow on the surface holding the frostnipped area against the body. Do not rub the area, apply snow or plunge it into very hot or cold water. Victims of severe frostbite must receive prompt medical attention.

3. **What is hypothermia and what are the warning signs?**
   Hypothermia occurs when the body temperature drops to 95 degrees F. or lower. It can develop whenever body heat loss exceeds heat gain. Hypothermia is not exclusive to winter. It can occur during the wind and rain of spring and summer. Hypothermia is often mistaken for fatigue, irritability, or dehydration and may include some of these signs: abnormal decision making; improper response to cold; apathy, lethargy; decreased cooperation; slurred speech; disorientation; shivering; stumbling; and stiffness progressing to inability to move.

4. **How do you treat hypothermia?**
   Mild to moderate hypothermia (body temperature greater than 90 degrees F., conscious, shivering, able to walk)
   - Prevent further heat loss. Dry, remove from cold and insulate.
   - Rewarm by warming the body core first. Rehydrate with warm broth.
   - Seek medical attention.

   Severe hypothermia (body temperature less than 90 degree F., unconscious, not shivering).
   - Prevent further heat loss.
   - Seek immediate medical attention.

5. **What are the various winter weather warnings and advisories?**
   - A winter storm watch indicates that severe winter weather conditions may affect your area in the next 12 to 48 hours.
   - A winter storm warning indicates that severe winter conditions are imminent. There are a variety of warnings including including, ice storm warning, lake effect snow warning, and winter storm warnings.
   - A winter storm warning for heavy snow generally indicates in the Lower Peninsula: 6 inches in 12 hours or 8 inches in a 24-hour period. In the Upper Peninsula: snowfalls of at least 8 inches in 12 hours and 10 inches in a 24-hour period.
   - Blizzard warnings are issued when sustained wind speeds or frequent gusts of at least 35 miles per hour are accompanied by considerable falling and/or blowing snow, for a period of at least 3 hours. Visibility is greatly reduced to near zero during a blizzard.
   - Winter Weather advisories are issued when snowfalls are expected to be hazardous, but less than warning criteria. Generally, in the Lower Peninsula, 4 to 5 inches are expected in a 12-hour period. In the Upper Peninsula, it would result when 4 to 7 inches of snow are anticipated in that same time period.

Preventing Frozen Pipes

YOU CAN PREVENT FROZEN PIPES

Frozen pipes aren't just an inconvenience. An average of a quarter-million families have their homes damaged and lives disrupted each winter…all because of water pipes that freeze.

An eighth-inch crack in a pipe can spew up to 250 gallons of water a day, destroying floors, furniture, and personal property. Both plastic (PVC) and copper pipes can burst.

Before the Cold Hits…

- **INSULATE** pipes in crawl spaces and attics, the ones most susceptible to freezing. Remember: The more insulation, the better protected your pipes will be.
- **HEAT TAPE** or thermostatically-controlled heat cables can be used to wrap pipes. Use only products approved by an independent testing organization, such as Underwriters Laboratories, and only for the use intended (exterior or interior). Closely follow all manufacturer's installation and operating instructions.
- **SEAL** leaks that allow cold air inside, near where pipes are located. Look for air leaks around electrical wiring, dryer vents and pipes. Use caulk or insulation to keep the cold out and the heat in. With severe wind chill, a tiny opening can let in enough cold air to cause a pipe to freeze.
- **DISCONNECT** garden hoses and, if practical, use an indoor valve to shut off and drain water from pipes leading to outside faucets. This reduces the chance of freezing in the short span of pipe just inside the house.

When the Mercury drops…

- **A TRICKLE** of hot and cold water might be all it takes to keep your pipes from freezing. Let warm water drip overnight, preferably from a faucet on an outside wall.
- **OPEN** cabinet doors to allow heat to get to uninsulated pipes under sinks and appliances near exterior walls.

If you're away…

- **SET** the thermostat no lower than 55 degrees F.
- **ASK** a friend or neighbor to check your house daily to make sure it's warm enough to prevent freezing, or…
- **SHUT OFF** and drain the water system. Be aware that if you have a fire protection sprinkler system in your house, it will be deactivated when you shut off the water.

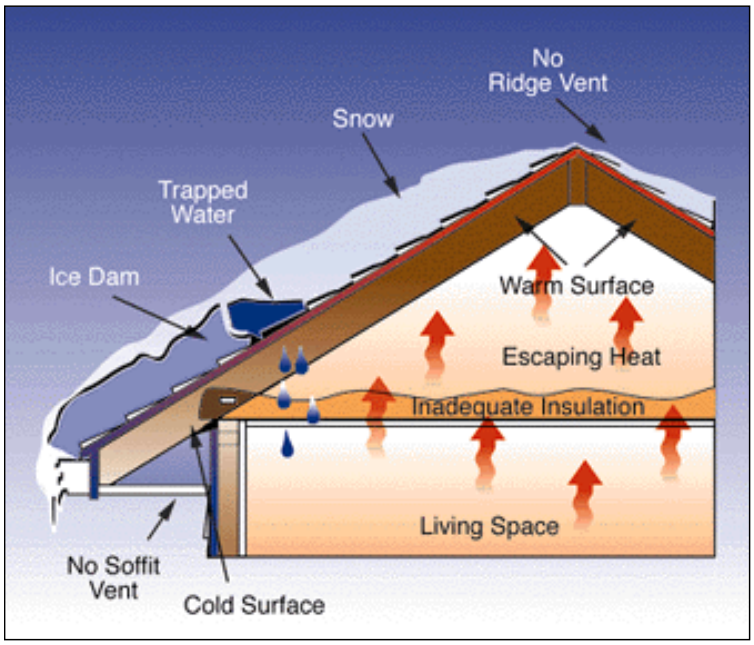
If your pipes freeze…

- **DON'T TAKE CHANCES.** If you turn on your faucets and nothing comes out, leave the faucets turned on and call a plumber. If you detect that your water pipes have frozen and burst, turn off the water at the main shut-off valve in the house; leave the water faucets turned on.
- **NEVER** try to thaw a pipe with a torch or other open flame. Water damage is preferable to fire damage. You may be able to thaw a frozen pipe with the warm air from a hair dryer. Start by warming the pipe as close to the faucet as possible, working toward the coldest section of pipe.
- **DO NOT** use electrical appliances in areas of standing water because electrocution is possible.

Make everyone in your family aware of where the water shut-off valve is and how to open and close it.

Preventing Roof Ice Dams

Hot Tips for Preventing Cold Weather Damage



Ice dams are most common in northern climates. They occur when heavy snow buildup melts during the day and then refreezes when temperatures drop overnight.

After several days of freezing-melting cycles, the melted water and ice tend to work up under the shingles until water enters the attic and eventually does damage to the ceilings, wall and contents. If the ice dam goes unnoticed for an extended period, it can significantly damage the building and its contents.

There's no way to guarantee an ice dam won't damage your home, but you can reduce the likelihood of an ice dam forming in the first place:

- Thoroughly clean all leaves, sticks and other debris from rain gutters and down spouts. This allows melting roof snow to flow into gutters and through down spouts.
- Strive to keep snow on your roof to a minimum. Long-handled devices on the market called "roof rakes" let you stand on the ground and pull the snow off the roof. Keeping heavy snow loads off your roof reduces the chances for both ice dam formation and roof failure due to the weight.
- Keep gutters and down spouts clear of snow and icicles all winter.
- Evaluate the insulation and ventilation in your attic. Most experts agree attic insulation should have an R-value of at least R-30 (R-38 is preferable in northern climates). In addition, good airflow from under the eaves or soffit area along the underside of the roof and out through the roof vents is essential. The insulation prevents heat loss from the interior of the home. The venting allows the attic air to stay cold enough to prevent or minimize the freeze/thaw cycle on the roof. Consult a reputable roofing and/or insulation contractor about these improvements.

Preventing Flood Damage

Are you at Risk?

Your local floodplain manager, building official, city engineer, or planning and zoning administrator can typically tell you whether you are in a flood or other hazard area. Your local community official is also a good source of information on how to protect yourself, your house and property from flooding and other hazards.

Ways to protect your house and property
Basement flood protection can involve a variety of changes to your house and property—changes that can vary in complexity and cost. You may be able to make some types of changes yourself. Complicated or large scale changes or those that affect the structure of your house or its electrical wiring and plumbing should be carried out only by a professional contractor licensed to work in your state, county, or city. Below are some examples of flood protection.

- **Install Sewer Backflow Valves.** In some flood prone areas, flooding can cause sewage from sanitary sewer lines to back up into houses through drainpipes. Sewage backup not only causes damage, but also creates health hazards. Backflow valves have a variety of designs ranging from simple to complex. This is something that only a licensed plumber or contractor should do.

- **Raise or Flood-Proof Heating, Ventilating, and Air Conditioning Equipment.** In flood prone houses, a good way to protect HVAC equipment is to elevate it above the areas that flood. Another method is to leave the equipment where it is and build a concrete or masonry block flood wall around it.

- **Anchor Fuel Tanks.** Unanchored fuel tanks can be easily moved by floodwaters. One way to anchor a tank is to attach it to a large concrete slab whose weight is great enough to resist the force of floodwaters. Elevate tanks to a minimum of at least one foot above the base flood elevation. Floating and/or damaged tanks pose serious threats not only to you, your family, and your house, but also to public safety and the environment.

- **Raise Electrical System Components.** Any electrical system component, including service panels (fuse and circuit boxes), meters, switches, and outlets, can easily be damaged by floodwaters. All components of the electrical system, including the wiring, should be raised at least one foot above the base flood elevation.

- **Raise Washers and Dryers.** Washers and dryers can easily be damaged in a flood. In order to prevent this from happening, utilities can be placed on cinder blocks one foot above the base flood elevation.

- **Add a sump pump in your basement.** Sump pumps can help keep groundwater from entering your home's interior.

- **Cut drywall so that it is one-half to 1-inch off the floor.** This is especially important in basements. Concrete floors commonly absorb ground moisture—especially in winter months. That moisture can wick up the wallboard if it's touching the floor, allowing mold to grow out-of-sight within the walls. (You can hide the gap with wood or rubberized floor trim.)

- **Don't forget to buy flood insurance.** Flood insurance provides year-round financial protection and improves your ability to quickly recover when severe storms strike and cause unexpected flooding. Call your local insurance agent or 1-800-720-1090 to reach National Flood Insurance Program specialists.

Flood Insurance

1. **Is flood damage covered by my homeowners insurance?**

   Flood damage is excluded in nearly all homeowners and renters insurance policies, but can be purchased as a separate policy.

2. **Where do I get flood insurance?**

   Any licensed property/casualty insurance agent can sell a flood insurance policy. If you experience trouble in locating an agent, contact the National Flood Insurance Progam's (NFIP) agent referral program at 1-888-CALL FLOOD or go to http://www.floodsmart.gov/floodsmart/pages/purchaseinsurance.jsp

3. **Is there a waiting period before my flood insurance policy becomes effective?**

   There is a 30-day waiting period before a new or modified flood insurance policy becomes effective.

4. **Are all flood insurance policies the same?**

   Flood insurance coverage can be purchased for homes and businesses – separate coverage must be purchased for the building and its contents.

5. **Do I need to live in a floodplain to get flood insurance?**

   You do not need to live in a floodplain to purchase flood insurance – coverage is available to any building located in a community that has qualified for the National Flood Insurance Program. Click here or go to http://www.fema.gov/fema/csb.shtm for Michigan's flood insurance participating community listing from the NFIP.

6. **Is water back up in basements covered by a flood insurance policy?**

   Coverage for water back up in basements (drains/sewers) is excluded from the flood insurance policy.

7. **Can I get coverage for water back up in basements?**

   Although basement water back up is excluded under most homeowners' insurance policies, coverage can be obtained by purchasing an endorsement. Most insurance companies offer sewer and drain back up as optional coverage. Coverage and limits vary by insurance company, so check with your agent/company about specifics. Some insurance companies include full coverage for sump pump failure while others specify items that are covered.

8. **Are there steps I can take to minimize losses from water back up in basements?**

   - Never store perishables or valuables in basements that you can't afford to lose or replace.
   - Do not store any item near basement drains.
   - Check storm drain lines to make sure they're clear of debris, roots, etc.
   - Grade the property around your home to drain water away from it.
   - Install gutters and make sure downspouts are extended away from the foundation in order to carry water away from the basement walls.
   - Use shelving or store items several inches above the potential water level in order to prevent loss.
   - If you do have some water seepage following storms, take corrective measures to alleviate problems in the future.

Heat Sources Safety

Each year fire claims the lives of 4,000 Americans, injures tens of thousands, and causes billions of dollars worth of damage. People living in rural areas are more than twice as likely to die in a fire as those living in mid-sized cities or suburban areas. The misuse of wood stoves, portable space heaters and kerosene heaters is especially common risks in rural areas.

The United States Fire Administration (USFA) believes rural fire problems can be reduced by teaching people to recognize the hazards. The following precautionary steps can greatly reduce an individual's chances of becoming a fire casualty.

Wood Stoves

Wood stoves cause over 9,000 residential fires every year. Carefully follow the manufacturer's installation and maintenance instructions. Look for solid construction, such as plate steel or cast iron metal. Check for cracks and inspect legs, hinges and door seals for smooth joints and seams. Use only seasoned wood for fuel, not green wood, artificial logs, or trash. Inspect and clean your pipes and chimneys annually and check monthly for damage or obstructions. Be sure to keep combustible objects at least three feet away from your wood stove.

Electric Space Heaters

Buy only heaters with the Underwriter's Laboratory (UL) safety listing. Check to make sure it has a thermostat control mechanism, and will switch off automatically if the heater falls over. Heaters are not dryers or tables; don't dry clothes or store objects on top of your heater. Space heaters need space; keep combustibles at least three feet away from each heater. Always unplug your electric space heater when it is not in use.

Kerosene Heaters

Buy only UL-approved heaters and check with your local fire department on the legality of kerosene heater use in your community. Never fill your heater with gasoline or camp stove fuel; both flare up easily. Only use crystal clear K-1 kerosene. Never overfill any portable heater. Use the kerosene heater in a well ventilated room.

Fireplaces

Fireplaces regularly build up creosote in their chimneys. They need to be cleaned out frequently and chimneys should be inspected for obstructions and cracks to prevent deadly chimney and roof fires. Check to make sure the damper is open before starting any fire. Never burn trash, paper or green wood in your fireplace. These materials cause heavy creosote buildup and are difficult to control. Use a screen heavy enough to stop rolling logs and big enough to cover the entire opening of the fireplace to catch flying sparks. Don't wear loose-fitting clothes near any open flame. Make sure the fire is completely out before leaving the house or going to bed. Store cooled ashes in a tightly sealed metal container outside the home.

Having a working smoke alarm dramatically increases your chances of surviving a fire. Remember to practice a home escape plan frequently with your family.

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