TRI-LAKES VOLUNTEER FIRE DEPARTMENT

Tri-Lakes Tribune

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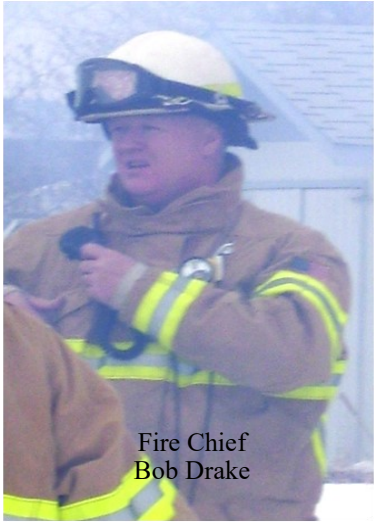
Jackie Jandt, Newsletter

Fire Chief's Report


Fire Chief Bob Drake

As I write this, the ground is bare. I am hoping for some snow to cover up all the cured grass. I am not necessarily hoping for as much snow as we received last year but we really do need some snow. Last winter's snow really helped keep our summer fires in check. Sonny Stiger kept telling us our fire season would be later, milder, and would not include mega-fires like 2017 because of large amount of snow. He turned out to be exactly right!

We are being told, by the Weather Service, that we should see a pretty mild winter with below average precipitation and above average temperatures. Not exactly stellar news when looking forward to next summer's fire outlook. Based on past predictions, I think we should reserve judgement this early in the winter and see what happens.

We have been busy training new firefighters, answering medical calls, implementing new fire tracking software, and trying to keep up with all the paperwork it takes to make volunteer fire departments operate. We are looking at adding Medication Endorsements to our emergency medical capabilities. This endorsement for our EMTs and adding it to our department medical license would allow us to carry a specific set of drugs that we could administer to critical patients.

With the opioid crisis sweeping the country, including Montana, there is a big push for us to carry Naloxone to temporarily block the effects opioids have on the body. If you are like me, I was skeptical of us needing this in Montana except for hardcore drug users. However, I was wrong – the largest group of opioid overdoses are the elderly that mistakenly take too much pain medication and accidently overdose. Quickly administering Naloxone to this group of patients, that may already be health compromised, may minimize the lasting adverse effects of the overdose.

Once we open the door to carrying medications, then we are also looking at epinephrine, Benadryl, and aspirin. We have not carried these in the past, largely due to the

Fire Chief's Report—Continued On Page 9

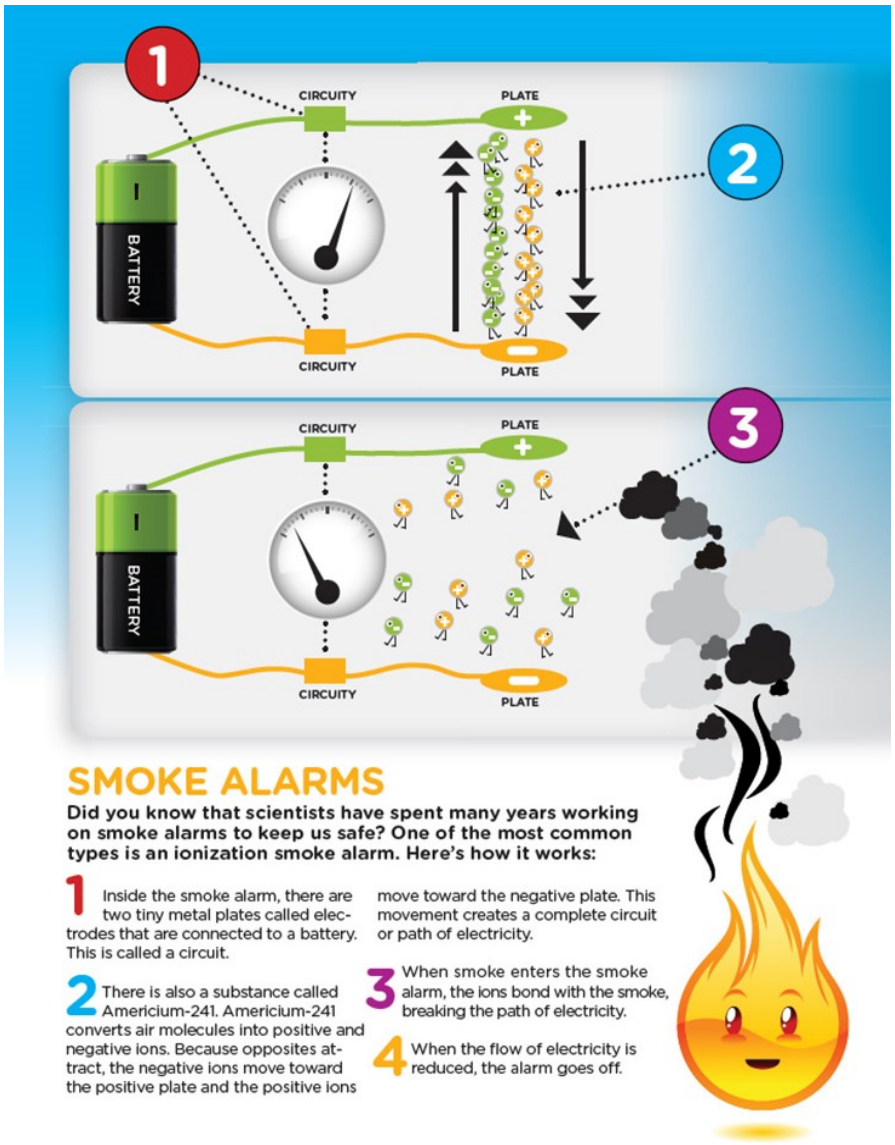
FIRE ALARMS

We know they are important and have been proved to save lives. In fact, they've proved so effective, and the message has been spread so successfully, that by 2001, 95% of American homes have at least one smoke detector installed. That's good news, but there's more to that story. The same Fire Engineering study reported, that of the fires investigated, only 55% had working detectors in the home. So even if we have detectors in our homes, they must be maintained to ensure they will work when needed. And that doesn't just mean replacing batteries.

Did you know the sensors inside of a smoke detector have a finite life?

Don't worry, if not, you're not alone: a 2016 survey conducted by the National Fire Prevention Association (NFPA) found nine out of 10 American's didn't know how often smoke alarms need to be replaced. (The answer is 10 years, by the way, as recommended by the NFPA and the Consumer Product Safety Commission (CPSC)). Almost one in five of these same survey respondents indicated the alarms in their home were greater than 10 years old, and another one in five responded they didn't know the age of their smoke alarms. Not a good sign, almost 40% may be at risk with non-functional, or under-functioning smoke alarms.

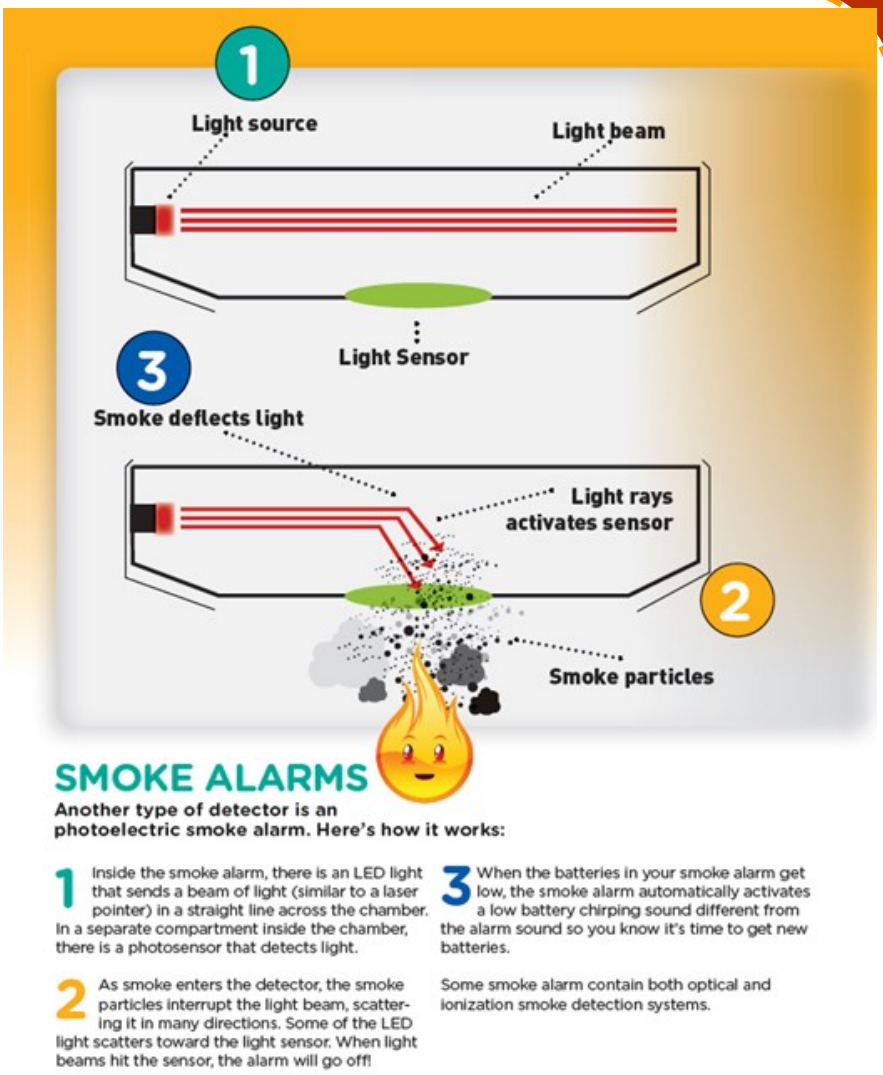
And let's not delude ourselves, even if all smoke alarms are functional, they still may not work properly during a rapid burning, minimal smoke fire, or a smoldering fire with low heat. From 2009-2013, smoke alarms sounded in only 53% of fires reported to US fire departments. In fires where smoke alarms were present, but did not sound, almost half were caused by disconnected or missing batteries (46%). Another 24% were caused by dead batteries. That leaves 30% of fires where smoke alarms didn't sound, but they had working batteries or hardwires supplying power. This is why the NFPA recommends that multiple detectors are installed in homes, on multiple levels, both inside, and outside bedrooms. Redundancy matters! The National Electrical Code bases its guidelines from NFPA recommendations. NFPA makes recommendations on the types of smoke alarms you should install: ionization and photochemical alarms. To the right, is a great depiction of how an ionization alarm works.



Fire Alarms—Continued on Page 3

Fire Alarms—Continued from Page 2

Ionization alarms tend to be more commonly installed in residential buildings, since they were developed first. This is especially true for older structures with original smoke detectors still installed, those are likely ionization alarms. Ionization alarms are generally more responsive to flaming fires, with lots of heat to move smoke particles quickly. Ionization alarms also tend to be the most user-deactivated smoke alarms, due to their false alarm tendencies (which is sometimes an unfair categorization, because they are installed in improper locations, e.g. close to a kitchen stove, cooktop, wood stove or fireplace, etc.)



The other type of alarm commonly available is the photochemical detector. Here's how it works:
Photochemical alarms tend to respond faster to slow-start, smoldering fires than ionization alarms. So much faster, that one study performed in 2003 found a photochemical alarm responded over 40 minutes faster than an ionization alarm to smoldering fires. Fires are easier to fight when they are small, and modern homes with light-weight construction and synthetic carpets/furniture tend to reach life-threatening status sooner. So, those extra minutes gained from a photochemical alarm give you and your family a better chance to escape and provide earlier notification to the fire department, so we can extinguish the fire when it is small.

Most widely recognized fire and safety organizations (NFPA, the U.S. Fire Administration (USFA), CPSC and Underwriters Laboratories (UL)) recommend installing photochemical alarms in residential structures. They also go further to recommend both types of alarms are installed, because one can never predict what type of fire may start in the home. Modern fire alarms come in all forms and functions: hardwired, battery-powered, lifetime lithium battery-powered, wireless-interconnected, combination function, talking, strobing, smart and alarm-integrated. We're not here to tell you what brand or model of alarms are best for your situation, but we do urge you to consider integrating some photochemical alarms into your home, they're proven to warn you faster for the most likely type of fire you will have in your home. Seconds count in an emergency, and a photochemical alarm may give you minutes of earlier warning.

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[1] Fleming, Joseph et al., Fire Engineering, Investigating Smoke Alarm Effectiveness in Fatal Fires.

[2] September 27, 2016. https://www.nfpa.org/News-and-Research/News-and-media/Press-Room/News-releases/2016/How-often-do-smoke-alarms-need-to-be-replaced-A-national-survey-shows-most-Americans-dont-know

[3] https://www.nfpa.org/Public-Education/By-topic/Smoke-alarms

[4] Bukowski, et al. "Performance of Home Smoke Alarms, Analysis of the Response of Several Available Technologies in Residential Fire Settings." National Institute of Science and Technology NIST Technical Note 1455-1, 2008 Revision.

Norovirus Illness: Key Facts

Norovirus—the stomach bug

Norovirus is a highly contagious virus. Norovirus infection causes gastroenteritis (inflammation of the stomach and intestines). This leads to diarrhea, vomiting, and stomach pain.

Norovirus illness is often called by other names, such as food poisoning and stomach flu. Noroviruses can cause food poisoning, as can other germs and chemicals. Norovirus illness is not related to the flu (influenza). Though they share some of the same symptoms, the flu is a respiratory illness caused by influenza virus.

Anyone can get norovirus illness

- Norovirus is the most common cause of acute gastroenteritis in the U.S.
- Each year, norovirus causes 19 to 21 million cases of acute gastroenteritis in the U.S.
- There are many types of norovirus and you can get it more than once.

Norovirus illness can be serious

- Norovirus illness can make you feel extremely sick with diarrhea and vomiting many times a day.
- Some people may get severely dehydrated, especially young children, the elderly, and people with other illnesses.
- Each year, norovirus causes 56,000 to 71,000 hospitalizations and 570 to 800 deaths, mostly in young children and the elderly.

Norovirus spreads very easily and quickly

- It only takes a very small amount of norovirus particles (fewer than 100) to make you sick.
- People with norovirus illness shed billions of virus particles in their stool and vomit and can easily infect others.
- You are contagious from the moment you begin feeling sick and for the first few days after you recover.
- Norovirus can spread quickly in enclosed places like daycare centers, nursing homes, schools, and cruise ships.
- Norovirus can stay on objects and surfaces and still infect people for days or weeks.
- Norovirus can survive some disinfectants, making it hard to get rid of.

Norovirus can spread in many ways

Norovirus can spread to others by—

- having direct contact with an infected person, for example, touching an infected person while caring for them,
- eating food or drinking liquids that are contaminated with norovirus,
- touching objects that have norovirus on them and then putting your fingers in your mouth, for example, touching a countertop that has vomit droplets on it and then putting your fingers in your mouth and
- sharing utensils or cups with people who are infected with norovirus.

There's no vaccine to prevent norovirus infection and no drug to treat it

- Antibiotics will not help with norovirus illness because antibiotics do not work on viruses.
- When you have norovirus illness, drink plenty of liquids to replace fluid loss and prevent dehydration.
- If you or someone you are caring for is dehydrated, call a doctor.

National Center for Immunization and Respiratory Diseases
Division of Viral Diseases

CS234745-A

What is the Right Way to Wash Your Hands?

1. Wet your hands with clean, running water (warm or cold) and apply soap.
2. Rub your hands together to make a lather and scrub them well; be sure to scrub the backs of your hands, between your fingers, and under your nails.
3. Continue rubbing your hands for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
4. Rinse your hands well under running water.
5. Dry your hands using a clean towel or air dry them.

See Handwashing: Clean Hands Saves Lives (www.cdc.gov/handwashing/)

5 Tips to Prevent Norovirus From Spreading

1. Practice proper hand hygiene

Always wash your hands carefully with soap and water—

- after using the toilet and changing diapers, and
- before eating, preparing, or handling food.

Alcohol-based hand sanitizers can be used in addition to hand washing. But, they should not be used as a substitute for washing with soap and water.

2. Wash fruits and vegetables and cook seafood thoroughly

Carefully wash fruits and vegetables before preparing and eating them. Cook oysters and other shellfish thoroughly before eating them.

Be aware that noroviruses are relatively resistant. They can survive temperatures as high as 140°F and quick steaming processes that are often used for cooking shellfish.

Food that might be contaminated with norovirus should be thrown out.

Keep sick infants and children out of areas where food is being handled and prepared.

3. When you are sick, do not prepare food or care for others

You should not prepare food for others or provide healthcare while you are sick and for at least 2 to 3 days after you recover. This also applies to sick workers in schools, daycares, and other places where they may expose people to norovirus.

4. Clean and disinfect contaminated surfaces

After throwing up or having diarrhea, immediately clean and disinfect contaminated surfaces. Use a chlorine bleach solution with a concentration of 1000–5000 ppm (5–25 tablespoons of household bleach [5.25%] per gallon of water) or other disinfectant registered as effective against norovirus by the Environmental Protection Agency (EPA).

5. Wash laundry thoroughly

Immediately remove and wash clothes or linens that may be contaminated with vomit or stool (feces).

You should—

- handle soiled items carefully without agitating them,
- wear rubber or disposable gloves while handling soiled items and wash your hands after, and wash the items with detergent at the maximum available cycle length then machine dry them.

Visit CDC's Norovirus Web site at www.cdc.gov/norovirus for more information.

NEW EQUIPMENT

Tri-Lakes received a grant from the 2017 Montana Wildfire Relief Fund for $9,000 to be used to purchase a new trailer mounted variable message board. We have wanted one for several years to help us keep our responders safe on our high volume, high speed road incidents and to better inform the public as to what is going on. We used theses grant funds along with some matching funds to purchase a new Ver-Mac Large-Size Full-Matrix, Trailer-Mounted Message Sign. This sign is exactly like the Montana Department of Transportation (MDOT) signs you see in construction zones. Several of our volunteers work for MDOT so we have the know how to operate and maintain the sign. This will allow us to quickly and effectively utilize this unique asset for not only Tri-Lakes but for the entire first responder community in the Helena area.

You will start seeing the sign along the roads in our area notifying you of upcoming CPR trainings, fire condition alerts, and other safety messages. We intend to rotate the sign throughout our service area and keep it moving around with new and fresh messages. It will always be ready for deployment to an emergency scene at a moment's notice. The total cost of the project was $15,500.

We also added two new gas detectors made by Sensit Technologies. The detectors measure Carbon Monoxide, Lower Explosion Limit for combustibles, and Oxygen levels. The two additional units have been placed in Stations 1 and 5 to reduce our response times in those areas and to provide us with a level of redundancy that we have not had before. These detectors are fairly easy to use but are finicky on maintenance, batteries, etc. so they tend to have a fairly high failure rate. The total cost of these two units and the calibration kit was $3,664.

We were able to get, through the Department of Defense (DOD) surplus program, a 20 ft. storage box, two 8 ft. storage units, four rolling toolboxes, and a practically new hot-water pressure washer. The Department of Natural Resources helped us obtain the items. Through the DOD surplus program, we are only required to pay for the shipping to get the items here which was $1,600 total for all the items since they were all available at one surplus location

Move Over/Slow Down

Do you know Montana has a Move Over Law? MCA 61-8-346 (Montana Code Annotated) states, motorists must either move over a lane away from emergency responders along a roadway OR if we can't move over safely, slow down at least 20 mph below the posted speed limit.

There is a firefighter, law enforcement officer, tow truck driver, emergency medical responder, or a construction worker hit and killed on a highway in the US every day. Our area is not immune from this problem as the traffic load on our roads increase with all the new subdivisions, construction detours, and increasing recreational traffic.

You have seen an increasing number of traffic incidents within our area and the white crosses along our roadways should serve as a permanent reminder of the tragic consequences. I can tell you, from personal experience, how terrifying it is standing along Highway 12 with semis and cars going by at 70 mph, day-night, cold-hot, snowy-rainy, etc. Most motorists seem to think they have slowed down if they merely let off the gas pedal.

Our volunteers have wives, kids, grandkids, husbands, sisters, brothers, friends, etc. to go home to at the end of every call. PLEASE, move over if you can, and if you can't move over, slow down – REALLY slow down. I promise we will not hold you up any longer than absolutely necessary. Everyone will understand if you are late when you tell them about the horrible wreck you had to wait for!

Please keep our volunteer firefighters and EMTs in your thoughts and prayers every day as they risk their lives to help keep you safe.

BURN PERMITS REQUIRED

The Burn Permit System continues to work as designed. We continue to strive to keep burning open and make those that burn take responsibility for their own actions. Just because the system says you CAN burn, doesn't mean you SHOULD burn. Be responsible – because you are! Anything that happens is your fault. You light it – you own it.

Burn permit system basics are as follows:

1. To obtain a burn permit for the first time or renew a permit you received last year, you can go on-line to www.burnpermits.mt.gov or visit the County Treasurer's Office in the City/County Building at 316 N. Park Avenue. Permits cost $8.00 for a new permit or $5.00 to renew your permit from last year. The 2018 burn permits are valid until December 31, 2018.

2. The burn season continues all year but there are there seasonal periods each having different requirements. Seasonal periods and requirements are as follows:

   A. **March 1st to August 31st** – only a L&C County Burn Permit is required to be activated each day you burn.

   B. **September 1st to November 30th** – in addition to a L&C County Burn Permit (which needs to be activated each day you burn), you must ALSO call the Montana Department of Environmental Quality (MDEQ) Ventilation Hotline at 800-225-6779 prior to burning. You may only burn if both systems allow burning that day.

   C. **December 1 to March 1st** – burning is restricted to only those burns considered ESSENTIAL. You need a L&C County Burn Permit, a MDEQ air quality permit (called a Montana Wintertime Open Burning Request), and you must activate your permit each day AFTER getting permission from MDEQ's meteorologist for burning on that specific day.

3. There are four Burn Zones for Lewis & Clark County to allow opening and closing of burning in the four areas independently. Burn Zones are 1) Lincoln Zone, 2) Augusta Zone, 3) Wolf Creek/Deerborn Zone, and 4) Helena Valley Zone. Tri-Lakes is part of the Helena Valley Zone and will be opened and closed with the rest of the valley. When activating your burn permit, the system will automatically check your permit's location and let you know if your zone is open for burning that day.

4. Regardless of the time of year, you MUST activate your L&C County Burn Permit each day you are burning. Activate you permit on-line at www.burnpermits.mt.gov or call 1-877-453-BURN (2876).

5. Anyone can view current burn activity each day by going to www.burnpermits.mt.gov, selecting the County to view and then select the "View current burn activity" radio button.

The system has really evolved from the original version and continues to make using burn permits easier for permit users, dispatchers, volunteer fire departments, and the public in general. If you have questions, please call Bob Drake at 406-431-3600 and he can help you with the system.

Fire Chief's Report—Continued From Page 1

high cost and short shelf life of epi pens. Medication protocols have been changed to allow us to carry epinephrine in relatively cheap, multi-dose, ampules that we can draw from to give to patients having severe allergic reactions. We have had allergic reaction calls in the past, but, until recently, patients were already too far gone for us to help even if we carried epinephrine. However, with our increasing population, the number of allergic reaction calls, and the cheaper drug options, we believe we can make a cost-effective case to carry the drug. Benadryl and aspirin are very cheap and have long shelf lives which make them cost effective also.

The following table shows the number of calls and volunteer hours spent on each for the last three years (hours only include volunteer hours spent on fires where our firefighters were not eligible for state reimbursement):

	2018	% Change	2017	% Change	2016	2 Year % Change
Fire calls	88	(2%)	90	3%	87	1%
Fire call hours	446	(35%)	689	81%	380	17%
Medical calls	146	(13%)	167	16%	144	1%
Medical call hours	356	(31%)	516	63%	315	13%
Training hours	1,918	4%	1,843	33%	1,386	38%
Total hours	2,834	(18%)	3,441	54%	2,235	27%

As you can see from the numbers, our fire call and medical call volumes were both down this year compared to the extreme year we had in 2017. The hours and calls are in line with the 2016 numbers. No wonder we were tired in 2017!!

We are switching this time to a different safety message on the command rig – Move Over/Slow Down to highlight the Montana Law that requires us all to either move over a lane for stopped emergency vehicles or if you can't safely move over, to slow down at least 20 mph from the posted speed limit while you pass by the incident. See the article in this newsletter that provides more information about the law.

We are looking forward to using the sign trailer in the coming weeks to put on another Hands-Only CPR class in early January. Please take an hour out of your busy schedules and give the gift of life by learning CPR!

Please keep our volunteers in your thoughts and prayers throughout the year. They really care about helping you! They do it because they want to not because they have to!!

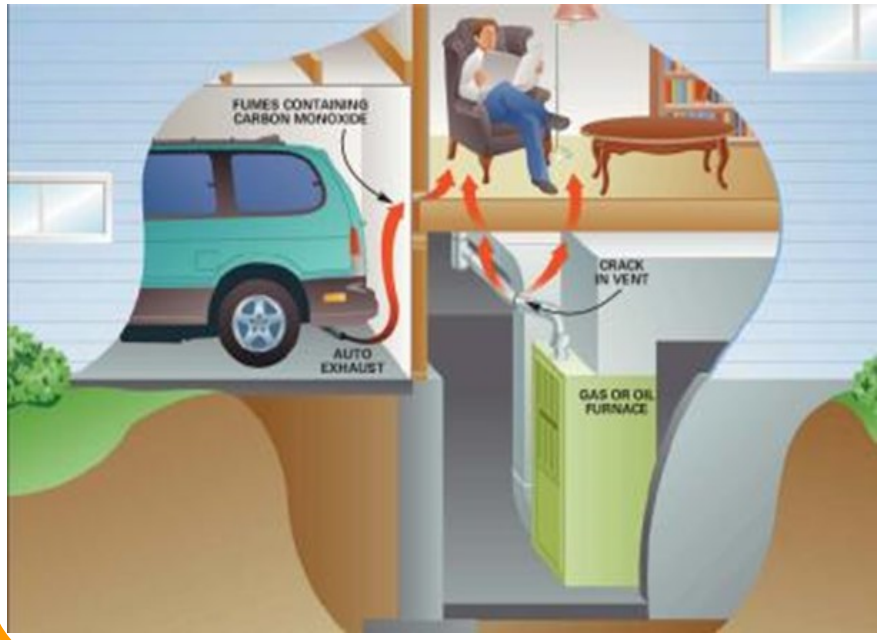
Bob

LESSONS LEARNED

Since the last newsletter, we have responded to many situations we think could be used to help others avoid a similar emergency. Here are two:

- We recently responded to a chimney fire in a shop, but this wasn't our normal wood-fired variety but a diesel-fired pressure washer fire. The business uses, on almost a daily basis, a Hotsy pressure washer that produces hot water by burning diesel fuel. The large chimney that carries smoke from the Hotsy burner out of the building became plugged with soot when fuel injectors in the firebox on the unit became plugged. As the injectors began to plug, the efficiency of the burner decreased causing more and more soot which eventually caught fire inside the chimney. The underlying problem was #2 diesel fuel was being used which does not burn as cleanly in colder temperatures. As temperatures cool in the fall, the owner needed to switch to #1 diesel and then maybe to kerosene in the dead of winter. Each change in fuel makes the combustion process cleaner and results in less soot in the chimney. Any appliance that burns fuel (wood, gasoline, diesel, waste oil, etc.) needs to have its chimney cleaned and inspected on a regular basis to prevent combustion by products (i.e. soot, creosote, etc.) from building up on the inside of chimney exhaust pipes and catching fire. Please clean your chimneys often!

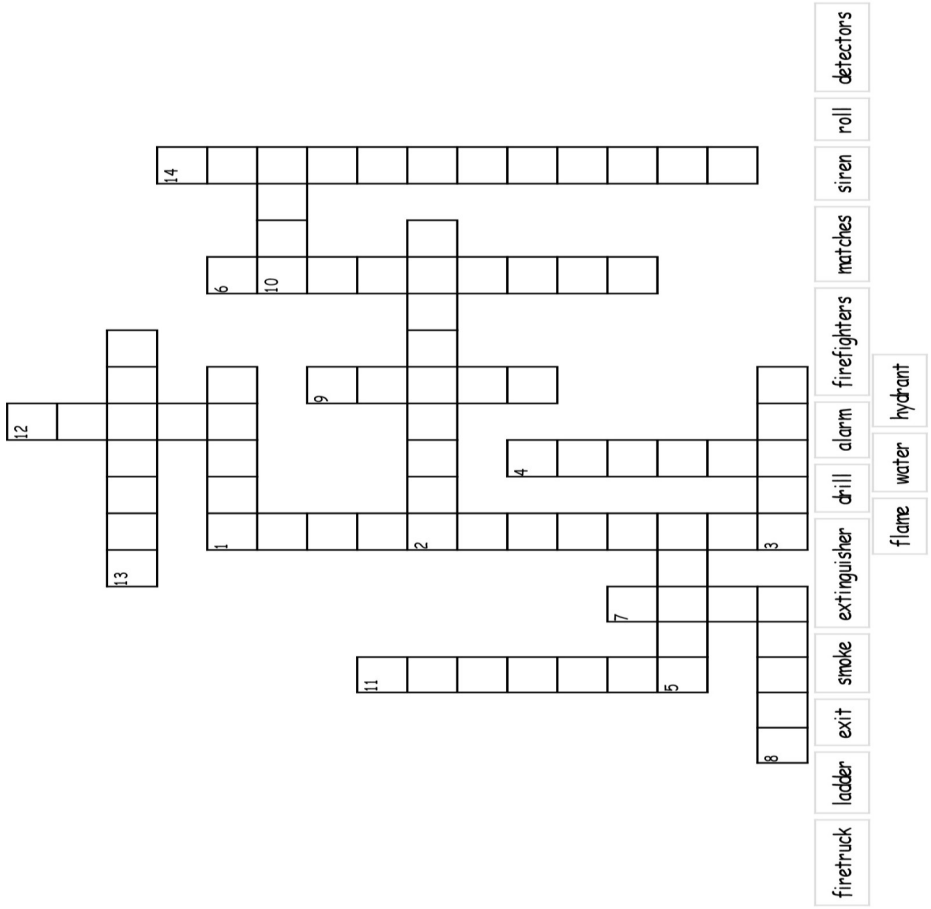
- We responded to what appeared to be a routine carbon monoxide alarm call. Upon arrival our 4-gas meter detected over 600 parts per million of CO (carbon monoxide) inside the house. Extremely high readings – easily in the lethal range. Luckily the homeowner had a CO monitor in the house. It worked as advertised and went off around midnight which woke them up. At first, we focused on the utility room downstairs with its propane fired furnace and propane hot water heater. No matter what we did, as soon as we re-lit the furnace, the CO numbers started to climb. Everything around the furnace looked fine and it was not a new house, so the furnace had been operating normally for years. Perplexed, we had no choice but to advise the homeowner the furnace need to be disabled for the night and serviced the next day by a professional. So, we went about ventilating the house again and bringing in fresh air to displace the CO, so it was safe. With the furnace off, they would be cold but safe for the night. As we went room to room clearing the house, we discovered the root cause, a Toyota Camry running in the attached garage! An elderly male, that lives in the house with his kids, had forgotten to turn off the car motor when he came home around 10:00 p.m. The furnace had a cold air return duct running through the garage and pulled exhaust from the car into the furnace which blew it throughout the house. That CO alarm saved their lives from an innocent age-related accident.



Kid's Page

Write the letter of the correct match next to each problem.

1.	_____	Drill	a. Big red emergency vehicle with ladders on the side
2.	_____	Matches	b. You use this to climb up on.
3.	_____	Extinguisher	c. In an emergency, you must find the nearest _____ and leave the building.
4.	_____	Detectors	d. Crawl on the ground to avoid breathing _____
5.	_____	Firetruck	e. Use a fire _____ to put out the flames
6.	_____	Ladder	f. A fire _____ is something that you practice by exiting the building.
7.	_____	Smoke	g. A fire _____ is a loud noise to alert you of a fire.
8.	_____	Hydrant	h. The people trained to put out fires
9.	_____	Exit	i. _____ are dangerous little sticks that should not be played with
10.	_____	Firefighters	j. This makes a loud noise on a firetruck. Cars pull over when they hear it.
11.	_____	Siren	k. Stop, drop, and _____
12.	_____	Flame	l. Fire _____ help by smelling the smoke put off by a fire.
13.	_____	Water	m. The jumpy orange colored part of a fire
14.	_____	Roll	n. This comes out of a fire hose
15.	_____	Alarm	o. A fire hose gets its water from the fire _____.



Across:

1. The jumpy orange colored part of a fire
2. Big red emergency vehicle with ladders on the side
3. This makes a loud noise on a firetruck. Cars pull over when they hear it.
5. Crawl on the ground to avoid breathing _____
8. A fire _____ is something that you practice by exiting the building.
10. In an emergency, you must find the nearest _____ and leave the building.
13. A fire hose gets its water from the fire _____.

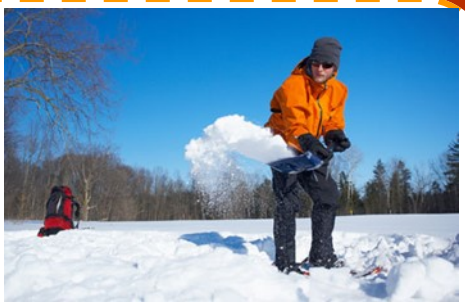
Down:

1. The people trained to put out fires
4. You use this to climb up on.
6. Fire _____ help by smelling the smoke put off by a fire.
7. Stop, drop, and _____
9. This comes out of a fire hose
11. _____ are dangerous little sticks that should not be played with
12. A fire _____ is a loud noise to alert you of a fire.
14. Use a fire _____ to put out the flames

3200 Spokane Creek Road
Helena MT 59602

The Tri-Lakes Board of Trustees meets the first Tuesday of each month at 7:00 pm at Station #3, 3200 Spokane Creek Road. The public is encouraged to attend.

When Working in the Cold, Be Prepared and Be Aware



Working in cold environments may increase risk of cold stress. Exposure to cold can be an uncomfortable and potentially dangerous situation. Whenever outdoor temperatures drop significantly below normal and wind speed increases, heat more rapidly leaves the body. Serious health problems can occur when the body is unable to stay warm enough.

Be prepared by wearing warm clothing that is right for the weather. Wear several layers of loose clothing. Layering provides better insulation. Wear gloves to protect the hands, and a hat and/or hood to protect the head. In wet conditions, wear waterproof shoes that have good traction. Make sure that your cold weather gear does not restrict your movement or block your eyesight.

Be prepared to limit your time outside. Take breaks in warm locations, such as inside a vehicle or other sheltered or heated area. Be prepared for working in the cold, even if the cold temperatures are not extreme. It is obvious that bitter cold and howling winds can harm you, but did you know that you could suffer cold-related illness and injuries when it is as warm as 60° F?

One of the biggest dangers from working in the cold can be the hardest to recognize. Hypothermia happens when your body temperature drops because body heat is being lost faster than it can be produced. Mild hypothermia can make you feel confused, and you may not realize anything is wrong until it is too late. Being too cold can also cloud your judgment and cause you to make mistakes while you work, and mistakes can sometimes be deadly. Early symptoms of hypothermia include shivering, feeling tired, loss of coordination, and confusion. As your body loses more heat, the shivering will stop, your skin may turn blue, the pupils of your eye will dilate, your pulse and breathing will slow, and you will lose consciousness.

Many parts of the body are prone to frostbite, including your fingers, toes, nose, and ears. Frostbite happens when a part of the body freezes, damaging the tissue. With severe damage, the body part may need to be removed to prevent even worse health problems. Warning signs of frostbite include numbness or tingling, stinging, or pain on or near the affected body part. Avoid frostbite by being aware of the weather and wearing protective clothing such as warm gloves, insulated shoes, and warm hats.