

Society focus on Safety.....



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Horse Stable Fire Prevention and Preparation

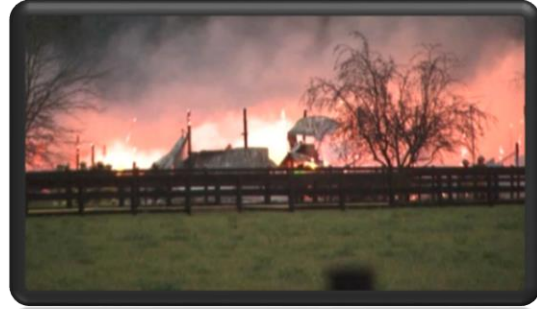
What would happen if a stable fire occurred at your facility? Tomorrow? Tonight? What would you do if you were there? What would happen if you were not? Each of us hopes that everyone at our stable, including ourselves, is prepared to do battle with a stable fire if one should occur. How many of us actually are?

Did you know that fires in stables and on ships have a high potential to be catastrophic? In the commercial shipping industry and passenger liner industry, all ship's crews practice fire drills weekly. How often is one practiced at your stable? Has one *ever* been practiced at your stable?

2014 has been a destructive and deadly year for horse stable fires. A review of just a few headlines is eye opening. In the following six cited articles, 80 horses lost their lives, six stable owners had their lives changed forever and numerous horse owners mourned the loss of their animals.

It is a very well established fact:

In emergency situations, individual respond as they have trained and practiced. The more everyone trains and practices fire drills, the efficiency with which a true fire emergency will be handled exponentially increases.



Stable Fires in the News:

(Please take a moment to note 4 of the 6 highlighted stories occurred this past November and one is from this past December.)

Barn fire that killed 18 horses in Oconee attributed to electrical cause

By Athens Banner-Herald

January 31, 2014

“The fire at Brookwood Equestrian Center on Union Church Road appears to be electrical in nature and started in the area of the tack room, a place where equipment is kept and horses are shod, according to Glenn Allen, a spokesman for the state Insurance and Fires Safety Commission.”

“One of the 18 horses did escape the burning barn, but its injuries were so severe it had to be put down.”

“The fire department got there very quickly, but the whole barn was a complete loss — and 18 horses.”

Four horses and a cow die in a barn fire on DeKalb-Clayton County line

By The Atlanta Journal-Constitution

Monday, November 17, 2014

<http://www.ajc.com/news/news/four-horses-cow-die-barn-fire-dekalb-clayton-count/nh8hQ/> (watch newscast report)

“We don’t have any idea how the fire started or where it started”, DeKalb fire Capt. Eric Jackson said going on to say the fire destroyed the “extremely large” barn.

Officials release cause in barn fire that killed 18 horses

November 18, 2014

By WSBT-TV

<http://www.wndu.com/home/headlines/Edwardsburg-barn-fire-likely-caused-by-burning-leaves-283066821.html>

(watch live news cast/report)

EDWARDSBURG -

"We now know what is believed to have caused that big barn fire last week in Cass County that killed 18 horses."

"He says the fire at Smithfield Stables is believed to have started after someone on the property started burning leaves behind the barn."

"WSBT spoke with a Michigan State Police fire investigator who says the fire has been ruled accidental."

Barn fire kills 32 horses at Valley View Acers

November 23, 2014

By: ABC News - Chicago

<http://abc7chicago.com/news/woodstock-barn-fire-kills-32-horses/407482/> (watch post fire interviews with stable owner and borders.)

"Fifteen of the 32 horses that died in the fire belonged to owner Amber Bauman. She and her husband were at an awards banquet Saturday night when her son was awakened by a crackling sound from the stable area."

"My best friend was in there," Bauman said. "I've known her since the day she was born and when I was a 10-year-old girl on New Year's Eve I said, 'I'm going to buy that horse,' and her name is Eve, and I bought her."

"Bauman's son and one of their grooms were able to rescue five horses."

Fifteen Horses Die In Georgia Barn Fire

November 27, 2014

By The Chronicle of the Horse

"A barn fire at Julie Curtin's New Vintage Farm in Woodstock, Ga., claimed the lives of 15 horses late yesterday evening."

"The cause of the fire is unknown at this point."

11 Horses Killed in Hockessin, Delaware Barn Fire

December 21, 2014

By: ABC 6 News

<http://6abc.com/news/horses-killed-in-hockessin-del-barn-fire/446119/>

"Eleven horses were killed in a raging barn fire in Hockessin, Delaware Sunday night."

"With the nearest hydrant more than a mile away, fire companies used tankers to get water up the hill to fight the fire."

Does your stable have a Fire Prevention, Preparation and Response Plan? If yes this will be a great review to assure everything is covered. If you do not have a Fire Plan, *now* is the time to form and implement one. Develop (or review) your facilities' Fire Prevention, Preparation and Response Plan. This plan will explicitly outline how you will plan to prevent and prepare to respond to a fire emergency.

A FIRE PREVENTION, PREPARATION and RESPONSE PLAN:

FIRE PREVENTION PLAN ELEMENTS:

- Install a lightning rod(s). Must be professionally installed and inspected on an annual basis.
- Store hay in a separate, well ventilated building preferably 100 feet away and at least 50 feet away from your stable, any live animals or equipment storage buildings.
 - Fires are able to “jump” easily from building to building if they are in close proximity to one another.
 - 50 feet will allow fire fighters to position their equipment
 - 100 feet will greatly reduce the incidence of fire “jumps”
- Know your hay types and their potential self-combustion risks. Some bales combust more easily than others. Oat hay is high risk of self-combustion.
- Monitor hay bales for heat buildup.
 - A simple metal rod may be used by inserting the rod into the hay and waiting 15 minutes. The rod should always come out of the bale comfortable to touch. If it is too hot to comfortably hold in your bare hand, the bale is too hot and at risk for spontaneous combustion. Take immediate action.
 - A self-combusting bale is burning from the inside out. It is almost impossible to penetrate the bale with water from a standard garden hose well enough to extinguish the flame. You should call the fire department and inform them of “hot bales” needing to be doused.
- Perform visual inspections of electrical wires frequently.
 - The majority of the wires should be run through PVC conduit piping.
 - Exposed wires are at risk of being chewed by rodents, as they find the material used to cover wires “sweet” tasting, leaving the internal components exposed.
- Keep the barn aisles clean and clear of storage items: carts, tack trunks, hay bales, blankets or any other items that would accelerate a fire or hinder rescue attempts.
- Moisten dirt aisle ways on a regular basis to keep dust down and reduce fire spread risk

- Remove all cobwebs regularly.
 - Cobwebs are very flammable and have been known to cause fires to spread rapidly as burning webs can drop into the shavings or fodder in stalls.
- Keep grass mowed short around the barn and hay storage areas.
 - Closely mowed grasses are easily extinguished, high grasses and weeds are very combustible and lead to out of control firestorms quickly.
- Consider professional installation of heat detectors in the stable and a remote receiver in your house and office that will alarm if there is a significant increase in temperature inside the barn.
- Install smoke detectors in climate controlled areas of the stable; riders lounge, tack rooms, offices.
 - They are not recommended in the stable environment. Smoke detectors have been found to be inconsistent often alarming due to dust. They may also become “clogged” with dirt and debris and become unable to sense smoke.
- Have a proper disposal receptacle to dispose of and store combustible materials.
 - Dispose of greasy or oily rags in a heat resistant receptacle as these items may self-combust. Place the receptacle outside of the stable. Oily rags are known to generate a great amount of heat and combust very easily.
 - An individual placing a hot cigarette butt into a waste can with oily rags can also trigger a fire.
- Install Fire Extinguishers throughout the stable at a rate of one mounted fire extinguisher for every 20-30 feet of stable environment.
 - Assure all boarders and workers know how to properly use the equipment.
 - Use only ABC type extinguishers that are capable of extinguishing all types of fires; wood, paper, chemicals, flammable liquids, grease, gasoline, oil and electrical fires.
- Have the extinguishers inspected on an annual basis by a professional in addition to your monthly checks.
- Spread all manure and old hay piles as heat may build to the point of spontaneous combustion
- Implement a strict no smoking policy in or near the barn.
 - Post “No Smoking” signs
 - Provide a “safe container” for persons to extinguish and deposit any smoking materials so they are not placed on the ground or in trash cans inside the barn. (A metal can or glass jar with some sand and a screw on metal cap is recommended.)
- Consider having a fire suppression system installed in the stable (water sprinklers)
 - Have a professional evaluation performed to determine if this is an option for your facility.

Most stable fires occur in the WINTER

The Primary Causes:

Appliances – heating appliances are the number one cause with heat lamps being the primary cause in the category.

Exposed electrical cording – from over use, misuse and rodent chewing, each leaving the internal components exposed to the environment.

FIRE PREPARATION PLAN ELEMENTS:

- Let your physical address be known:
 - Have your physical address written in various places so individuals may see it if they need to place a call to emergency dispatch.
 - Have all of your employees and borders put the address into their cell phones.

- Be sure the entrance to your facility is clearly marked so fire trucks know where to enter quickly.
 - Inspect your entry way to assure large vehicles are able to enter.
 - Be sure the width (at least 12 feet) and height (at least 15 feet) are adequate.
 - Be sure the ground packing is able to accommodate fire trucks.
 - Fire truck average weight is between 8,000 and 56,000 pounds.
 - Does your ground support that weight? What about after the ground becomes saturated with water used to put out the fire?
 - Fire departments will not risk loss of their equipment to fight a fire. If they cannot safely enter your property, they will not enter.
 - Any bridges onto the property should be able to support your local emergency fire vehicles.

- Have working, charged flashlights or preferably hiking type headlights readily available.
 - Assure workers and borders know the location of flashlights/headlights.
 - The power will be shut off by the fire department.
 - Hiking-type headlights will be very helpful as it frees up ones hands to be used for other tasks.

- Know which persons are on property.
 - Have a system for knowing which individuals are present at the stable so their location may be accounted for during an emergency.

- Establish an emergency meeting place for all persons *outside* the stable.
 - This allows all persons to be quickly accounted for assuring no time is lost in searching for someone already outside.
 - Establish a primary and secondary location so if your primary location is unsafe people know where to go.

- Establish an emergency horse placement location.
 - Assure all workers and boarders know where the horses are to be placed after evacuation from stalls.
 - The location will need to be an *upwind* paddock location.
 - Wind patterns may change based on season. Assure the pasture is appropriate for each season.

- Establish an empty stall marking system to assure no time is wasted searching empty stalls.
 - Must be easy to understand
 - Must work in low light / smoky conditions.
 - Best placement for marker is below 3 feet.
 - Mark stalls that are permanently empty
 - Mark stalls after a horse has been evacuated

- Assure that every horse has a halter and a lead line.
 - It is *best* to have a storage locker that is located at the stable entrance that contains enough halters and lead lines for *each* horse.
 - Leather is recommended over nylon as nylon easily melts.
 - No time should be wasted looking for halters or lead lines.
 - Assure they are hung in their proper location at all times.
 - Mark the location of any halters that hang on the actual stalls by applying a large piece of reflective tape to the wall. Mark the stall latches as well.
 - 15-30 seconds spent in a burning building or stall could be the difference between life and death.

- Invite the fire department to tour your property so they may familiarize themselves with the layout of the facility, electric shut off, stable, paddocks, water sources and alternative entrances.
 - Some of their members may also like the opportunity to halter and lead a few different horses as many may have never done so before.
 - The fire department will be able to prepare a plan for their records.
 - Provide them with a map of your facility.

- Assure all electronic entry gates have a professionally installed fireman's pass key / box.

- Assure the designated emergency pasture gates and locks are in proper working order and easy to use.

- Assure all PVC conduit pipes are intact and that all exposed cords are in prime condition.

- Conduct practice fire drills with all stable employees and boarders every month so they know what to do in case of an emergency.
 - During monthly drills:
 - Review your facilities established Sounding of the Alarm system
 - Review the facilities address, where it is written and assure it is in all workers and boarders cell phone contacts.
 - Review the location of flashlights (check to assure all batteries have a sufficient charge with a battery tester).
 - Review the location of all fire extinguishers.
 - Perform a visual inspection on each fire extinguisher to assure they will function properly and have not expired or are in need of their annual professional servicing.
 - Review proper fire extinguisher use.
 - Review the location of fire hydrants near the property.
 - Assure your entry way is well marked and easily identified from the road.
 - Perform a visual and manual inspection of any smoke detectors located in climate controlled tack rooms and offices. Assure they are free of dust and debris and batteries contain enough charge by checking them with a battery tester.
 - Perform a visual and manual inspection of any smoke detectors, heat sensors or fire suppression systems (water sprinklers).
 - Review: How to move about inside a burning building:
 - Smoke rises: it may be necessary to “bear crawl” on the ground (knees not touching) if needed to escape.
 - Review: How to extinguish a fire on a person or on a horse
 - If anyone catches fire; teach them to not run and instead to Stop, Drop and Roll.
 - Review smothering techniques to be used by others present (the use of blankets over the flames).
 - Teach basic first aid of burns and the need to stop the burning process which continues after actual flames are extinguished.
 - Once flames are doused, continue cooling any burned areas of skin with cool running water until emergency responders or veterinarians are able to assume care of the person / horse.
 - Monitor for decreasing body temperature with treatment

- Be aware thermal injuries of the lungs most likely occurred. Monitor breathing. Report changes in condition to medical staff.
- Review the location of the electric breaker box and how to turn the power off in case of a fire.
- Physically evacuate all horses from the building and place them in their assigned Emergency pasture location.
 - Review: Where each horse is to be placed once evacuated and how that horse's stall will be marked as being empty.
 - Practice covering each of the horse's head and eyes with different items (towels, jackets, cloths, saddle pads, etc.). Lead them out of the stall and barn so they are use to this activity. This may be done as often as possible and even on a daily basis.
 - Blindfolding is often the last resort to attempt to get a panicked horse out of its stall during a fire.
 - If a horse refuses to leave his stall in a burning building – there is no choice but to leave him and move onto other animals. Once all animals are out and it is *still safe* to enter the building, you may attempt removal of the reluctant horse again. At some point a horse that refuses to leave its stall will be left behind.
 - In a fire, a panicked horse that is use to the “fire drill” may find some normalcy in the blindfold situation and lead from their stalls.
- After the drill: let everyone get comfortably seated and review. What went right? What could be improved? Don't stop the drill to discuss actions, use verbal redirection of incorrect actions and keep going. Review afterwards.

FIRE RESPONSE PLAN ELEMENTS

There is a fire!

1. Assess the scene. How advanced is the fire? Is it safe to enter the building? If it is safe, remember your preparation training. If it is not safe – Do NOT enter the building.
2. Remember the acronym RACE:
 - a. Rescue – rescue anyone or any creature in imminent and certain danger of injury
 - b. Alarm – sound your stable alarm to alert others present onsite of the fire and the need to initiate your facility's Fire Plan. Call 911.
 - i. Be ready to supply the physical address location.
 - ii. Be ready to answer a few questions about the fire: Smoke present? Flames present? How large? Building type? Burning agent: hay bales, oily rags? Anyone trapped?

- c. Contain – move any items that are combustible away from the fire source if possible
 - d. Extinguish/Evacuate – attempt to extinguish the flames with an ABC type fire extinguisher – if not immediately successful – begin to evacuate animals from the building until it is unsafe to do so.
 - When attempting to extinguish the fire or hot spot with a fire extinguisher, remember the acronym PASS. Have only ABC type extinguishers in stables.
 - Pull the pin.
 - Aim at the base of the fire.
 - Squeeze the handle.
 - Sweep from side to side hitting the base of the fire
3. After evacuating horses; be sure all the gates to paddocks where the horses are being placed after emergency removal are closed and secured properly. Running, scared horses are a threat in many ways. The absolute worst thing that may happen is they can run back inside the burning barn and even into their stall.

BUILDING CONSTRUCTION MATERIALS AND FIRE PLAN CONSIDERATIONS: All stable owners should be aware of the construction materials used for their facilities (as should boarders) and should increase their vigilance of fire prevention strategies if substandard products or construction practices have been used. Consideration should be given to replacement or repair of items deemed high risk.

Barn/Stable building code varies from state to state and even county to county. Few have mandated fire code requirements for stables. Make your own code and set the standards high.

Fire Department personnel will be able to evaluate the construction strengths and weaknesses and offer suggestions during their requested site visit.

Building Materials are rated for flame spread, smoke development and fire rating

R.A.C.E. PRACTICE DRILL

R = Rescue any persons or animals in imminent danger of burns (physically take the horses out of stalls and/or have people move)

A = Alarm: sound the alarm – BOTH your facility alarm and saying how to call the Fire Department (shout Fire Drill, Fire Drill or blow an air horn, or do whatever the facility has determined the onsite fire alarm to be, state “Call 911” and report a “Stable Fire” at (address) that is (a hay fire, a stall and ceiling fire, etc.)

C = Contain – remove any flammable materials out of the immediate area of the drill fire location if possible and safe to do so – in a drill it is ALWAYS safe to remove items.

E = Extinguish/Evacuate – have a person locate and physically retrieve the closest fire extinguisher to the drill fire location. Have the person state out loud and demonstrate what they would do with the extinguisher – PASS!

E = Extinguish/Evacuate – physically evacuate the horses from the stable. Cover their eyes with different types covers during separate drills – jackets, shirts, saddle pads, towels - and lead them outside through various exits (be sure to rotate exits if there are multiple ones at the facility). Take them and place them in the pasture that will be assigned as their emergency pasture location.

Assure the paddock gates and locking mechanism are functioning properly.

- Different materials score differently – some are better at fire spread suppression, others worse and some disastrous.
 - Masonry materials are rated as a high fire suppression material but are very expensive to use in construction.
 - Wood treated with fire retardants and treated heavy timber is rated as high fire suppression ability. They can withstand high temperatures and preserve building integrity longer than steel beams!
 - Untreated wood is rated very poorly in all categories. Although it is one of the cheapest construction materials, it is the absolute worst to use anywhere in stable construction.
 - Roofing Materials:
 - Metal roofs increase fire spread. Their ability to increase fire spread is even greater if there are no, or too few, roof vents.
 - Roofing trusses should always be constructed of fire retardant treated heavy timber woods stamped with the Underwriter’s Laboratory or Factory Mutual seal.
 - Numerous roof vents should be present. The ratio of roof vents to square foot area varies depending on construction type and materials (roof vents reduce the spread of fire by releasing heat buildup to the outside environment).

This article was written with reference from the following sources:
Please view each article in its entirety.

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