Office of the State Fire Marshal
Prevention Division

August 2021

PREVENTION Highlights

Keeping Kansans Safe Through Prevention

In This Issue...

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PREVENTION Highlights

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Our Mission

The Office of the State Fire Marshal (OSFM) is dedicated to protecting lives and property from the hazards of fire or explosion and will promote prevention, educational and investigative activities to mitigate incidents, promote life safety and deter crimes.

The Fire Prevention Division

The goal of the Fire Prevention Division is to reduce the potential impact of fire and explosion hazards where people live, work and congregate (other than one– or two-family dwellings) through code enforcement, inspections, plans review, licensing, and public education.

Prevention Highlights

Prevention Highlights is published quarterly to provide facility managers and others with information necessary to operate fire-safe facilities.

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Connect with us!

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Edu-Note by John

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We are on the cusp of the end of summer, with many children dreadfully counting down the days, perhaps the parents less so, to the start of the school year, which seems to be headed into a normalized direction, especially after such a tumultuous 2020.

In this edition of Prevention Highlights, my first since starting with the OSFM, we have a look at barn safety, the historical Yellowstone National Park fire of 1988, what daycares need to be looking for in fire safety codes and how critical it is to fix penetrations in fire-rated walls.

I'm not a code expert (yet), but, thankfully, I am surrounded by many in our office. If I am not sure about which code applies to a certain situation, help is easy to find. In my early days, I have split time between the main office, in downtown Topeka, with some field work with surveyors in towns, including Olathe, Scranton, Carbondale, Burlingame, and Lawrence. I have found business owners and managers eager to help fix issues we have found in the enforcement of fire codes that keep everyone safe. I have gained much knowledge as different situations have come up. Experience is showing me to be, as the cliché says, the best teacher.

Our ultimate mission is to keep Kansans safe in their homes and in places they gather. I have already embarrassed my family by checking the back of a fire extinguisher tag and checking to see if they are getting monthly checks done. Yes, I admittedly have turned into a bit of a code geek. I enjoy getting into the office each day and learning what new opportunities may come across my desk.

Please reach out if you need any questions answered or would like to set up a presentation. I can be reached by email at john.sprague@ks.gov.

-John Sprague, Fire Prevention Education Consultant

Commercial Industrial Hemp Processing Oversight moves to OSFM in 2021

The 2021 Kansas Legislature passed legislation that was signed by Governor Laura Kelly, which establishes the Office of the State Fire Marshal (OSFM) to register and license all commercial industrial hemp processors in the state of Kansas.

Previously, the Kansas Department of Agriculture had the authority to register commercial industrial hemp processors in Kansas; however, the new law, rules and regulations give that authority to the OSFM.

A public hearing was conducted by the OSFM on May 11, to consider the adoption on a permanent basis of proposed new rules and regulations concerning commercial processing of industrial hemp.

The approved, temporary rules and regulations are posted on the OSFM website at https://www.firemarshal.ks.gov/334/Commercial-Industrial-Hemp-Processing.

Also posted on the OSFM website, are registration processes, applications, and forms for payment of annual fees.

Currently, our office is working on 11 Commercial Industrial Hemp Processor applications. Of those, seven are extracting oil using either ethanol, Co2, or the cold-press method, and four are separating the dried plant into stalk, fiber, seed, and flower, then selling those items to other markets.

Welcome to OSFM Prevention...

Spencer Smith

The Office of the State Fire Marshal is pleased to welcome three new Prevention Division employees. Spencer Smith joined us as a Fire Protection Inspector for McPherson, Marion and Reno counties. He comes to OSFM from the Tiffany Cattle Company, which is just east of Marquette.

Spencer and his wife live in McPherson with their two dogs. He enjoys hunting, fishing, and spending time with his family.

“I chose to take this position to serve my community,” he said. “I’m looking forward to starting a career in fire prevention.”

John Sprague

John Sprague has come to Prevention as our Fire Prevention Education Specialist. He brings over 15 years of experience to OSFM, after spending the past seven years with Mars-Wrigley Confectionery.

John lives in Topeka and enjoys spending time with his two children, Jake, 19, and Isabella, 17. His interests include grilling/smoking, reading and enjoying a good movie and watching and attending sporting events.

“I think this will be a good match,” John said. “I believe this is a very important division, and I hope to make a difference in this position.”

Frank Banuelos

Frank Banuelos also joined our Prevention Division as a Fire Prevention Inspector for Sedgwick, Harper and Kingman counties. After 15 years of Army service, where he trained in Combat Medicine and Fire Protection, he gained private sector experience as a lead fire systems technician. He also volunteers for SafetyTec services in Clearwater, performing education and other safety inspection services. He’s been a firefighter EMT for the City of Wichita and served as a Spanish translator and rescue team member.

Frank lives in Wichita and has one son, 19, and three daughters, ages 15, 13, and 10. He enjoys working out, cooking vegan food, spending time with his kids, playing soccer, and attending church and community events.

“I have a passion for saving lives and helping people,” he said. “After working years as a firefighter and graduating college, I found fire inspections to be my true calling.”

Welcome, Spencer, John and Frank!

For a list of OSFM current job openings visit
https://firemarshal.ks.gov/Jobs.aspx

Important Notice Concerning Propane

OSFM is responsible for licensing any propane company in the State of Kansas that engages in manufacturing, assembling and marketing of appliances, containers and products used in the propane industry.

Many people in Kansas rely on propane to heat their homes. Below are things to be aware of if your home is powered by propane.

What is propane?

It's an alternative fuel that is a byproduct of natural gas processing and petroleum refining. It's safe, clean, powerful, and reliably powers businesses and homes all over the world.

What is a leak test/check?

The National Fire Protection Agency code requires a leak check to be performed before any appliance or equipment is placed into operation. The leak check requirement applies to the entire vapor distribution system up to the outlets of the equipment shutoff valves. A leak test should be performed by your propane company any time there is an interruption of service, meaning the flow of gas was stopped for any reason.

Out of gas or empty propane tank leads to a mandatory leak test.

All too often, propane customers run out of gas when temperatures are the coldest. No matter what the temperature or how busy the gas company is, if the tank is out of gas, a leak test is required. This is considered an interruption of service.

How do you keep from running out of gas?

Keep an eye on the tank gauge or have your propane company place you on an automatic delivery schedule.

Out of propane means a mandatory leak test. It may not be convenient but it's the law.

If you have propane, you need to know the requirements by law when it comes to a leak test, and the importance that it be performed by your propane company.

Office of the State Fire Marshal
SAR
KANSAS
SEARCH & RESCUE
Emergency Response Division

Kansas Rescue Conference

Kansas Training Center/Crisis City
Salina, Kansas

SAVE THE DATES

October 20-22, 2021

Don't miss this opportunity to train and network with other rescue professionals and equipment vendors from Kansas and across the country.

Additional details including schedule, training tracks, fees and registration information coming soon. Visit firemarshal.ks.gov for more details.

Home Daycare Requirements

When we drop our children off at daycare, we have the expectation that they will be safe. And these facilities are vital—without safe daycares and their dedicated caregivers, it would be impossible for many parents to work and take care of their families. It is of the utmost importance that daycare facility owners, managers and authorities having jurisdiction (AHJ) ensure that the strictest levels of fire protection and life safety are put in place and maintained.

OSFM Requirements for Child Care Homes:

New Home Daycare

As a new home daycare provider you must complete our Fire and Life Safety Agreement (FLSA). It can be found on our web page here: Fire and Life Safety Agreement. ***Important:*** You are responsible for keeping the original fire official inspection for the duration of your license. So make sure to keep it in a safe place.

Existing Home Daycare – Renewal

Each year you are required to "renew" your FLSA; however, a fire official may or may not actually return to your home to conduct the fire inspection. If the fire official for your area does not conduct annual fire inspections, you will be required to conduct the inspection.

When conducting a self-inspection you will need to indicate any deficiencies and document your correction. By signing the FLSA, you are legally stating you have conducted the self-inspection and that all issues are cited and are corrected. This is not something to be taken lightly, nor is it appropriate to just fix all the issues and not document the violation.

Fire officials have conducted these inspections for many years, and we understand that all homes occasionally have issues. The goal is to identify the issues and correct them.

Once the FLSA is complete, you will check the renewal affidavit and sign and date the bottom. You will also fill in the date of the original fire official inspection; however, the fire official signature spot will remain blank. You will post the renewed/current FLSA. The original FLSA that was conducted by the fire official must be stored away for safe keeping for the duration of the license.

The Responsibility and Expectation of Meeting Daycare Fire Codes

Daycare facility owners, managers, and staff members are entrusted with the safety of children and thus have a huge responsibility. All personnel must know, understand, and implement the minimum requirements for a fire-safe environment. Corners should not be cut, and the minimums should be exceeded wherever possible. Parents have the right and expectation to retrieve their children at the end of the day in the condition they were left and better—as kids continue to play, learn, and grow every single day.

If our inspectors have tried to contact a home daycare twice with no appointment set or a return call, the inspector will be forced to escalate within the OSFM and we would notify Kansas Department of Health and Environment Child Care Licensing that we are not approving them. This could affect your license so please make sure to make your appointments with our inspectors.

Child Care Center Requirements

The definition of a child care center is a facility that provides supervision and personal care on less than a 24-hour basis and is licensed for more than five children, two-and-a-half years of age or less. The Kansas Department of Health and Environment (KDHE) requires 13 or more children to be classified as a child care center.

The process for obtaining child care center approval from OSFM begins with contacting KDHE Child Care Licensing and registering with them to be licensed. Once you have registered with KDHE, they will notify us of your license. Someone from our office will contact you to let you know what we will require. There are forms that must be filled out to start the process. These forms can be found on our web site at firemarshal.ks.gov/189/Plans-Review-Code-Footprint. There is a C.2.2 and a C.2.2.A form that must be filled out with all your information. These two forms, along with a stamped or sealed code footprint from a licensed Kansas Architect/Engineer, must be submitted for review.

Once these forms have been completed, you will submit all the documents in a PDF format to prevention@ks.gov. Please note, we do have a 30-day turn-around to complete the review, and our staff will also conduct a 50 percent and final inspection before the facility is approved for occupancy.

How to Prevent Being Cited for Fire Wall Penetrations

By Brian Love, CFPS
Fire Prevention Supervisor

One of the most cited deficiencies during our inspections are unprotected penetrations in rated assemblies. Frequently, these penetrations are caused by contractors while installing communication equipment, low voltage cabling, electrical wiring, conduit and plumbing. Occasionally, penetrations are created as a result of contractors accessing otherwise inaccessible areas, or by contractors failing to utilize access panels that are available but are in locations unknown to the contractors. Penetrations in rated assemblies cannot always be avoided, however, failures to repair those penetrations can always be avoided.

For purposes of this article, our emphasis will be those penetrations in attics and other areas not monitored by daily traffic in facilities. While door assemblies and other openings in rated walls are equally as important to maintain, we are concentrating on those assemblies that are frequently "out of sight," and all too frequently, "out of mind." It is assumed that facility staff are familiar with the importance of maintaining these rated assemblies, however, Internet providers, cable TV technicians, and other outside contractors are often not as educated in the fire protection provided by these walls and barriers; or they just don't care.

Fire walls and other rated assemblies are a vital part of the "Multiple Safeguards" required by code. These are described in the 2012 Edition of NFPA 101, Life Safety Code, as follows, "4.5.1 Multiple Safeguards: The design of every building or structure intended for human occupancy shall be such that reliance for safety to life does not depend solely on any single safeguard. An additional safeguard(s) shall be provided for life safety in case any single safeguard is ineffective due to inappropriate human actions or system failure." Though not often considered or seen by your staff or visitors, these are the "fireman in the attic" that quietly hang out to help control the spread of fire. Below, we are going to offer a simple solution to a huge problem – Penetration Permits.

Standard questions that need to be answered for a penetration permit must include the following, at a minimum:

- General and subcontractor contact information; and
- Description of work, including locations and dates; and
- Detailed description of work area and any expected penetrations on a facility plan or code footprint, including the rating of assemblies being penetrated, and size of anticipated penetrations; and
- Inspection records from local jurisdiction, state inspections, or other AHJs: and
- Indication of person/firm responsible for repairing penetrations; and
- Photos of all penetrations before and after repairs are made; and
- Type/brand/product number for any material being utilized for the penetration repair along with third party verification that the product is appropriate for the repair; and
- Final inspection by either by Director of Facilities Maintenance, or by a third-party inspector, if required by facility administration; and
- Dated signature of facility administration, confirming that the permit can be closed and the rated assembly either remains in compliance, or has been properly repaired to a fully compliant condition.

Cont. on Page 9

How to Prevent Being Cited for Firewall Penetrations… (Cont.)

The best tool that a facility can use to monitor for penetrations in rated assemblies is a Penetration Permit. This permit is issued each time a contractor is working in the building, as well as each time your own staff must penetrate one of these assemblies. It provides the 'checks and balances' that are necessary to make certain that you will not be issued a deficiency for fire wall penetrations on your next survey. Ultimately, facilities are responsible for maintaining all life safety systems, but the Penetration Permit allows a shared responsibility for everyone that works within your facility. A Penetration Permit will assure an upfront discussion on any work on, near, or through a rated assembly, and will assure that these assemblies are repaired to a code compliant condition at the completion of the project.

Two-Hour Wall

Large Penetration in a One-Hour Wall

A building plan or code footprint is attached to a Penetration Permit so the permitting process will make the contractors or staff aware of rated assemblies, fire or smoke damper locations, access panels, etc. Any anticipated penetration must be noted on the plan. Upon completion of the project, the rated assemblies must be checked to verify they either remain, or have been repaired to a compliant condition.

One-Hour Wall

Poor Patch Job

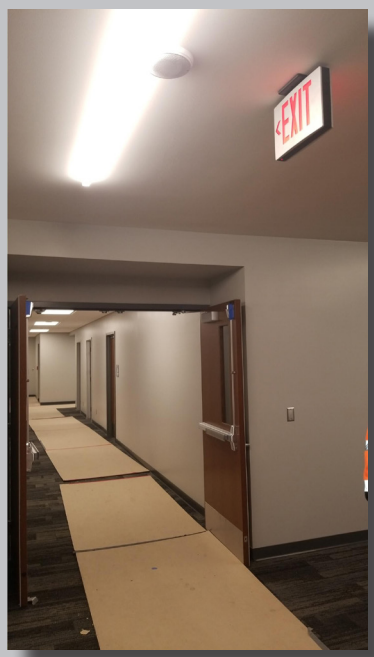
While the Penetration Permit is not a guarantee that unprotected penetrations will not exist, it is the best line of defense for a facility's proactive plan for maintaining rated assemblies. If you have questions, comments, or require clarification, feel free to complete a code consultation form, available on our website at https://www.firemarshal.ks.gov/.

SPOT
the violations

A

B

C



D

A

B

C

D

Answers on Page 11

Historical Fires...

Yellowstone National Park
Summer, 1988

The 1988 fire at Yellowstone National Park is one of the most destructive fires in national park history and was the result of a policy believing that fires would burn themselves out. But the conditions that were present that summer were historically dry and led to a wide area of destruction.

A wet spring in 1988 led to growth of underbrush, but dry conditions that began in June led to a drought, starting in July, which was one of the worst droughts in the history of Yellowstone National Park. Grass and plants, which flourished in the spring, dried up in the start of summer to provide tinder for the fires.

Fire near Old Faithful, Utah.

A normal fire season for Yellowstone was predicted by foresters and fire ecologists that year, so no extra precautions were called for in preparation for the fire season. Twenty small fires had started by July, but by the 15th, 11 went out on their own. The fires that were left were closely monitored with natural fire policies prescribed by the park's policies, at the time.

But precipitation in June, July and August that year was 36 percent of normal rain fall, according to the Forest Service. It was the perfect condition to turn the nine surviving fires, after lightening started them in late June, into a near inexhaustible fire. July and August saw dry storms with heavy winds up to 60 miles per hour that gave more fuel to the fire and allowed it to expand. It was a huge fire and eventually burned 1.4 million acres in the greater Yellowstone area, approximately 800,000 acres were in the park, which totaled 36 percent of the entirety of the park.

The most destructive day of the fires was August 20, which goes by the moniker of Black Saturday, when heavy winds drove the fire across another 150,000 acres, and ash fell on Billings, Montana, 60 miles northeast of the nearest fire. Aircraft was grounded and the fire grew so intense, firefighting efforts were futile.

The Forest Service fire policy for Yellowstone in 1988 was initiated in 1972 and referred to as a natural fire management system. It allowed certain lightning-caused fires to run their course. It was also in the policy that man-made fires were still possible and had to be monitored. As to the cause of the fires being only from lightning strikes, it is impossible to tell, as during that summer the park was recording up to 2000 strikes a day. While man made fire was a possibility, it was difficult to tell the core cause of the initial fires.

Digging fire breaks were useless as the high winds would blow embers across a wide path and extend the fire. One of the final causation areas attributed to the large fire was the age of the forest. Many of the trees were approaching 250 years of age and at a point they were near perfect tinder for the fires.

The wildfire in the Yellowstone Greater Area did not have the potential damage we have seen in other states as fires ravaged inhabited areas and destroying buildings as well as claiming human life. But the lessons from Yellowstone is the managed, "Let it burn," policy could work, but the conditions must be monitored, and policies must shift as conditions dictate.

Yellowstone has recovered now and is still a beautiful place to visit with over 20 years of new growth to view.

Answers to Spot the Violations (page 10)

A. Smoke doors must be without any holes or gaps. B. Penetrations in any fire wall must be filled by sealed fire caulk. C. Doors must swing in the direction the point of egress goes. D. Blocked exit.

Barn Fire Safety Checklist

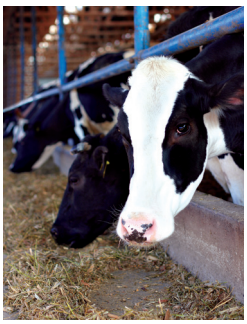
Mrs. O'Leary's Cow may have gotten a bad rap but the folktale reminds us fire safety is an important part of farm life. People, animals, and property are in danger when fire breaks out on the farm. Inspect your barn and outbuildings for fire hazards to reduce the risk of tragic loss.

- ✔ Heat lamps and space heaters are kept a safe distance from anything that can burn.
- ✔ Heaters are on a sturdy surface and cannot fall over.
- ✔ Electrical equipment is labeled for agricultural or commercial use.
- ✔ All wiring is free from damage.
- ✔ Extension cords are not used in the barn.
- ✔ Lightbulbs have covers to protect them from dust, moisture, and breakage.
- ✔ Damage is identified quickly and repairs are completed with safety in mind.
- ✔ Dust and cobwebs around electrical outlets and lights are removed.
- ✔ Oily rags are stored in a closed, metal container away from heat.
- ✔ Feed, hay, straw, and flammable liquids are stored away from the main barn.
- ✔ The barn is a smoke-free zone.
- ✔ Exits are clearly marked and pathways are clear.
- ✔ Fire drills are held frequently with everyone who uses the barn.
- ✔ Workers are trained to use fire extinguishers.
- ✔ Everyone in the barn knows personal safety is the first priority if a fire breaks out.
- ✔ Hazard checks take place on a set schedule.

Required Equipment

The following safety equipment may be required by local building codes and will help protect your barn. Install and maintain:

- ABC-type fire extinguishers near every exit and within 50 feet from any point in the barn.
- Fire alarm system
- Sprinkler system
- Carbon monoxide detection system



Talk with your local fire department to address safety concerns unique to your farm.

Go to www.nfpa.org/farms to learn more about fire safety on the farm.

NFPA
NATIONAL FIRE PROTECTION ASSOCIATION
The leading information and knowledge resource on fire, electrical and related hazards

