

State Fire Marshal Update

Minnesota State Fire Chiefs Association

The Minnesota State Fire Chiefs Association (MSFCA) had a very successful 2017 conference in Rochester with the largest vendor show in history and an excellent turnout from across the state. The State Fire Marshal Division (SFMD), Minnesota Board of Firefighter Training and Education (MBFTE), and Minnesota Office of Pipeline Safety (MnOPS) all had vendor booths during the conference and we were all very busy greeting attendees and answering questions.

The MSFCA Fire Officer School (FOS) is scheduled for Feb. 9-11, 2018, in Alexandria. Bill Thoennes and the planning committee have put together another excellent fire officer school and will be limiting the attendance to 300 attendees. This school always fills up very quickly, so keep an eye on the MSFCA website for registration information.

With the success of the Alexandria FOS, MSFCA has now expanded to a second FOS in Duluth on March 16-18, 2018. Check the MSFCA website for additional registration information.

Fire Data and Fire Code Team

Deadliest Counties for Fires:

The public education team and the data team recently put together data to compare the fire death rate for each county across the state. The death rate looks at how many deaths occur per 100,000 people. Looking at the death rate instead of the number of deaths per county allows us to compare fire deaths regardless of the population. We found the fire death rate varied from as high as 6.04 to as low as zero. There are three counties that have not had a fire fatality since 1990. The state average is 1.03 fire deaths per 100,000 population from 1990 to 2016. We have sent letters to the 16 counties with the highest death rates. We would like to help share resources and ideas to reduce fire death rates in those counties. Regardless of the fire death rate in your county, if you want to improve or expand your fire prevention program, our public education team of Amanda Swenson and Kathi Osmonson are available to assist.

Donaldson/Northwestern National Bank Fire:

Saturday, Nov. 25, 2017 marked the 35th anniversary of the Donaldson Department Store/Northwestern National Bank fire in downtown Minneapolis, which occurred on Thanksgiving Day 1982. The fire started in the construction debris of the combustible Donaldson Department Store that was being demolished and quickly spread into the adjacent Northwestern National Bank Building. The fire gutted the 6th-16th stories. It was the second largest property loss fire in 1982 (the largest was a K-Mart distribution center in Pennsylvania) and one of the largest property loss fires in history in a business occupancy.

Although sprinkler-protected high-rise buildings are common now, the Donaldson Department Store/Northwestern National Bank fire was one of that era that demonstrated the need to provide automatic fire sprinkler protection in high-rise buildings.

What was the significance of this major fire and some points to remember?

- The Donaldson/Northwestern Bank fire was one of several high-rise fires of that era (including the MGM Grand in Las Vegas – 1980, Las Vegas Hilton – 1981, Dupont Plaza in Puerto Rico – 1986, First Interstate Bank in Los Angeles – 1988, and One Meridian Plaza in Philadelphia – 1991), all pointing to the need for sprinkler protection for high-rise buildings
- The Donaldson/Northwestern Bank fire led to new national fire code requirements for buildings undergoing demolition.
- Minneapolis instituted a high-rise building protection program that became a model for other cities in the U.S.
- There was renewed interest in juvenile firesetting behavior (the fire was started by teenagers).
- This fire led to many business developing emergency plans for their operations.
- As with any building, people living, working, or visiting should always remain aware of their surroundings:
 - Pay attention to the location of exits.
 - Remember that elevators in most buildings are designed not to operate during fire conditions.

Structure Fire Trivia:

Do you know the most common month of the year, day of the week, or time of day for structures fires in Minnesota? Our fire data team does, and they've compiled the following information based on the last five years (2012-2016):

- The most common month for structure fires is January, followed closely by March and May.
- Saturdays are the most common day of the week for structure fires (2,559 of them), followed by Sunday (2,465) and Monday (2,447).
- The time of day for building fires follows a bell curve profile from 10:00 a.m. until 11:00 p.m. and peaks between 4:00 p.m. and 5:00 p.m.

This type of analytics or data-mining is possible because of our on-line fire reporting system with ImageTrend, a Lakeville, Minn.-based company. It is allowing us to conduct more detailed analyses of the fire problem in Minnesota.

Fire Reporting:

Speaking of fire reporting, we are nearing the end of the year. In 2016 all but five of the state's 779 fire departments provided run information to the Minnesota Fire Incident Reporting Systems (MFIRS). Some fire departments wait until the end of the year to enter their fire calls for the year. Although we prefer that the incidents get entered as they occur (rather than waiting until the end of the year), this is a friendly reminder to those departments that it is time again to submit your reports.

Sprinkler Saves:

From Jan. 1, 2004 through Oct. 31, 2017, there have been 980 sprinkler saves in Minnesota. Here is a breakdown by year:

- 2004: 70
- 2005: 50
- 2006: 52
- 2007: 65
- 2008: 75
- 2009: 80
- 2010: 80
- 2011: 68
- 2012: 71
- 2013: 78
- 2014: 80
- 2015: 78
- 2016: 73
- 2017 (ytd): 60

Training:

Our Fire Protection System Demonstration Trailer had a busy 2017 with 43 demonstrations to 772 firefighters and code officials. Here is a breakdown by year of the trailer's activities:

Year	Participants	Demonstrations	Averages
2012	263	12	22
2013	908	47	19
2014	940	46	20
2015	223	16	14
2016	434	22	20
2017	772	43	18
Total	3540	186	19

Fire Code Adoption Update

The code development and adoption process is running at full steam with SFMD's Code Development Committee currently reviewing and analyzing changes made between the previous two editions of the International Fire Code (IFC). Concurrently, the MSFCA has also begun its review of the 2018 IFC. As an advisory committee to the SFMD, the MSFCA code committee will review the 2018 IFC, as well as the current state amendments, and make recommendations to the SFMD.

The schedule assigned for this code cycle is an aggressive one, to say the least, with plans to have our state amendments (MN Rules, Chapter 7511) completed and ready for the State Revisor by June 3, 2018. This schedule keeps pace with the Minnesota Department of Labor and Industry's timeframe for adoption of the next State Building Code. The end goal is to have the effective dates of both codes occur sometime near the middle of 2020.

On a final note, after 26 years of code development, adoption of five state fire codes, and involvement at the national level with the transition to the “I” codes, SFMD Supervisor Jon Nisja has stepped aside to focus on other SFMD business. To fill the void, SFMD Supervisor Forrest Williams is now leading the code development and adoption process. For more information, or questions on how to submit a code change proposal, please email Forrest at forrest.williams@state.mn.us.

Fire Code Inquiries

SFMD Code Teams continue to average about 200 phone calls, emails, and even text messages per month from fire departments, contractors, architects, building owners and the general public. And this number is underreported, because many of our field staff receive questions directly. The Code Teams pride ourselves on same-day or at least 24-hour response to questions. However, some calls require code research and could take a week, but we will let you know if there will be a delay.

We have two email addresses for code questions (new format): fire.code@state.mn.us for code questions and fm.fire.sprinklers@state.mn.us for fire sprinkler code questions. You can also call the fire code specialist, Tom Jenson, at 651-201-7221.

When sending a question by email, it helps to get as much information as possible about your question. Most important is to include your name (not all email addresses contain your name) and a phone number to reach you. Some questions are better answered over the phone, or we need more information and talking is easier than emailing back and forth. So please include some kind of signature line with your name, department and phone number.

Holiday Fire Safety

We enjoy many celebrations during these next few long winter months. We have guests over and enjoy food and festivities, but we also increase our risks for fire. Last year, cooking was the cause of 45 percent of fires. As residents across the state celebrate the holidays, be sure to remind them of the risks of unattended cooking as well as combustibles too close to heat sources. While furnaces and fireplaces have been in use for weeks, remind residents to have the entire heating system inspected and cleaned by a professional each year, because 10 percent of fires were started due to heating fires. This is one way to help keep families safe from carbon monoxide (CO) poisoning as well.

Of course, we also want to make sure people are still thinking of home fire escape planning for themselves and their guests. In 2016, there were 21 fire deaths from November through March and 26 in 2015. To ensure that everyone has early warning in case of a fire, be sure to test the smoke and CO alarms before company arrives.

Use the SFMD social media posts to share with your community. Also share the fact sheets in your community or tips from the fact sheets. The fact sheets can be personalized with your own department logo and are located on the [SFMD website](#).

Reaching Target Populations with Fire and Life Safety Messages

A recent coffee-break bulletin from the United States Fire Administration tackles the topic of reaching out to target populations in your own communities. In order for messages to be effective for the populations you are trying to reach, it is important to get feedback from them to better understand their needs.

Let's say that a risk assessment in Anytown, USA, finds that a large share of fires and related losses involve gas wall heaters in homes built before 1980. You know that older adults live in these homes and often do not have working smoke alarms. You also know that home health-care workers frequently visit older adults in their homes. In the Anytown, USA example, you have an opportunity to target two groups with fire and life safety messages.

Target population: Older adults

Messages: Keep things that can catch fire away from wall heaters. Have working smoke alarms.

Target population: Home health-care workers

Message: Watch for gas wall heaters that pose a fire risk or are in need of service.

Understanding the needs and characteristics of your target populations by speaking with them will help you with the design and conduct of your fire safety education efforts. Consider the home health-care workers. By visiting with them, you will find out:

- How often they visit older adults in their homes.
- What they do while in the home.
- Their ability to check the wall heaters.
- Their willingness to share important fire safety information with older adults.

To learn more, consider applying for the National Fire Academy's (NFA) on-campus course, Station-Based Risk Reduction (R0673). This course will teach you how to develop an action plan with effective intervention strategies and activities targeting a specific risk. The application period for NFA is open until December 15.

Development of a Young Adult Fire and Life Safety Program

The SFMD recognizes that a large number of young adults who are beginning to live independently for the first time have not been given the necessary education to protect themselves from harm – from fire or by common criminals. The overall goal of the program is to give young adults who are graduating high school or leaving on-campus housing and planning to live independently for the first time, the tools and knowledge to prevent fires in their new places of residence.

Additionally, the program would include the partnering with local and/or campus law enforcement agencies in offering personal safety education to young adults. The program would be presented either in the high school setting, or in colleges throughout the state. This project is being spearheaded by the Fire and Life Safety Education Team.

UL Fire Safety Research Institute “Close Before You Doze” Campaign

The UL Fire Safety Research Institute (UL-FSRI) just launched their Close Before You Doze campaign, reminding people of the importance of closing their bedroom door at night to provide survivable space in a fire. For a limited time, UL-FSRI is giving away up to \$250 worth of PR and Public Education materials around the close-your-door message.

If you follow this link, you will be directed to their outreach toolbox: <https://fireservice.closeyourdoor.org/outreach-toolbox/>.

You need to enter the coupon code CBYD (which stands for close before you doze) when you check out.

The \$250 off is a limited-time offer...so get in quickly!

Recruitment and Retention Program

Management Analysis and Development (MAD) will be completing the final report on the three-year, 14-county pilot program on firefighter recruitment and retention in Minnesota. The report is due to the Minnesota Legislature by Jan. 15, 2018. Fire departments involved in the three-year pilot program may receive requests for additional information to compete the analysis of its effectiveness.

Fire Investigation Team

The history of fire investigations in Minnesota goes back to the earliest days of the SFMD. When the division was established in 1905, one of its primary functions was fire cause and determination. You should be aware that Minnesota State Statute 299F.04 assigns the responsibility for determining fire cause and origin of fires to the local fire chief.

Fire investigation remains a high priority at SFMD, and our staff continues to provide fire investigations when requested by a local fire department after calling the Minnesota state duty officer. Please call the Minnesota state duty officer to request a SFMD fire investigator to assist you at your incident.

Fire Investigation Training in Minnesota

The SFMD has had a long history of providing training to our customers in the MN Fire Service. This has included fire investigation training for fire department weekly drills and for weekend classes such as fire schools and conferences. We have also provided basic and advanced fire investigation training for future fire investigators. Kevin Mahle was asked to take over the fire investigation training for the SFMD this past summer. Kevin Mahle would like to inform you of the minor changes in the fire investigation training the SFMD will be providing for the MN Fire Service.

First Responder Role in Fire Investigations

First Responder Role in Fire Investigations will be the 2.5- to 4-hour training provided for fire department drill sessions. This class is designed for firefighters and law enforcement. It covers the NFPA 1001 (FFI and FFII) objectives for cause determination as well as the objectives in NFPA 1021 for Fire Officer I. This course will showcase the SFMD's Fire, Arson and Explosion Investigation Services. Along with evidence identification and preservation, this course will discuss observations made on scene by all first responders that may pertain to cause determination. If you are interested in this class for your fire department drill or law enforcement training, please contact your local Deputy State Fire Marshal Fire Investigator. If you cannot get ahold of your local investigator, feel free to contact Kevin Mahle.

Introduction to Fire Investigation

Introduction to Fire Investigation is an 8- to 12-hour course primarily for weekend fire schools and other conferences. This course will review the SFMD investigation services and First Responder's Role in Fire Investigation, and will start in on topics related to NFPA 1033 Professional Qualifications for Fire Investigator and NFPA 921 Guide for Fire and Explosion Investigations. These topics include fire behavior, building construction, fire pattern recognition, area of fire origin determination, fire cause, report writing and fatal fires. Case studies will be presented.

Fire Investigation Part One and Part Two

What used to be the 24-hour basic and the 40-hour advanced classes is now Fire Investigations Part One and Part Two. These classes are for firefighters and law enforcement with substantial experience, those individuals who would like to pursue a career in fire investigation, and individuals who are conducting fire investigations as part of their current position.

Fire Investigation Part One will be a 40-hour, college-level course taught from a textbook that will be provided to students in class. This class will provide the basics in NFPA 1033 and NFPA 921. It will be primarily classroom-based but will have some hands-on portions. The Fire Investigation Part One class will have a written final test. Lessons in the Part One class include:

Administration methodology	Fire science	Fire patterns
Building systems	Fire protection systems	Electricity
Safety	Documenting the fire scene	Physical evidence
Cause determination	Classification of cause	Failure analysis
Incendiary fires deaths and injuries	Motor vehicle fires	Explosions
		Wildland fires

Fire Investigation Part Two will be similar to the old advanced class. The same textbook will also be used for this class, and the students will also receive a NFPA 921 Guide for Fire and Explosion Investigation book. There will be some classroom portions but this class is intended to be more hands on including a live fire scene dig, processing and report writing. Many lessons will be presented by expert guest speakers. The final test will include the report and documentation of the live fire scene and the Minnesota Fire Service Certification Board (MFSCB)'s written Fire Investigator test. Students who pass the written test will not only pass the course, but will be able to go on and sign up for the MFSCB Fire Investigator practical on their own if they desire. Part Two lessons include:

Vehicle fires	Electricity and fire	Interviews	Financial aspects
Public/Private interface	Photography	Reports	Prosecution of arson
Forensic evidence	Scene exam	Case prep	Group presentation

It is important to note that MFSCB certification is not equal to IAAI-CFI or NAFI-CFEI. CFI and CFEI take additional experience to obtain and significant continuing education to maintain. Fire Investigation Part One and Part Two classes are only designed to provide basic training in the pursuit of additional training, experience, and continuing education to conduct fire investigations that will be likely to withstand legal scrutiny.

For those that have taken the old Basic Fire Investigation class in the last five years, there will be no need to start over in the new Part one class. We will provide a “bridge session” in the Part Two that will get these students brought up to date.

Kevin is currently setting up dates and locations for Fire Investigation Part One and Part Two classes starting in 2018. It seems that we always have a difficult time finding houses/buildings to conduct the burns in. If you have an acquired structure to burn in and would be interested in hosting these classes, please feel free to contact me. We are looking for well-maintained structures with walls, ceilings, windows and doors in place. We would use these buildings for multiple-room and contents fires to investigate as part of the class. The building would then be able to be used for additional fire department training after the class.

Watch the SFMD website for the posting of these classes in the near future, where you can also register for them: <https://dps.mn.gov/divisions/sfm/Pages/default.aspx>. Click on Training and then click on Fire Marshal Course Registration System. If you have questions, feel free to contact Kevin Mahle at 612-718-8448 or Kevin.mahle@state.mn.us.

Fire Service Specialists

- Jared Rozeboom from Rock County has started with the Division as FSS. Jared’s territory is the South Region of the State, and can be reached at 507-456-0907 or jared.rozeboom@state.mn.us
- LP Training Props, we have completed training the operator courses for the public and private training providers on the use of the new LP props. We have implemented a comprehensive training program for the Fire Departments in each region. Completion is estimated for December 21st. Training dates and locations can be found on the MBFTE website Calendar. If you’re interested in a class, please send either John Ehret, Tate Mills or Jared Rozeboom an email to reserve a spot. We are anticipating delivery of the final two props in early December, making a total of five trailers with identical props strategically located across the state for your use. For information on prop rental please contact your training provider or go to the SFMD web site for more information.
- Service Planning Grant Program (Old Shared Services Grant Program). We have been traveling the state assisting communities with their interest in the Service Planning Grants. We have had eight departments expressing interest, and currently working with six communities. Application deadline is January 31st. This program requires the assistance from your FSS, if you’re interested in the grant please go to the SFMD website, or contact your FSS.

Fire Training Props

Recently the Minnesota SFMD took delivery of five new training prop trailers that each have a car fire prop/BBQ prop/LP tank prop.

The trailer and props are available for rent to all fire departments and training institutions in Minnesota, if a member of your department/training institution has attended one of our “train the operator” sessions. Please see this [link](#) for the list of training sessions to be held in each of the 15 MSFDA regions.

NOTE: You must also have a MBFTE-qualified live burn instructor present during training rentals of these props (this is not a part of these training sessions).



If you are interested in the training, please contact:

Regions 2, 4, 6, 9, 10, 13:

Fire Service Specialist-West Tate Mills at 320-333-2817 or Tate.Mills@state.mn.us

Regions 1, 3, 5, 7, 8, 11, 12, 14, 15:

Fire Service Specialist-East John Ehret at 651-323-7134 or John.Ehret@state.mn.us

Service Planning Grant Program (formerly Shared Services Grant Program)

Service Planning Grants can be used for information gathering and a variety of studies. Those studies can examine everything from sharing training needs, administrative costs, and personnel and equipment to full consolidation of departments. If a department has an idea, the SFMD wants to hear it.

Eligible Use of Funds

These funds are to be used to pay for (but are not limited to solely paying for) a third-party feasibility study that addresses the study requirements listed below and the options for service planning, including (but not limited to) those provided in “A Blueprint for Shared Services.” A prerequisite could also be from a group’s independent study done to show that implementation will benefit all groups involved and improve service.

Study Requirements

The study will include:

- A clear set of goals that identifies how the participating fire departments/cities/townships will more efficiently plan for future service improvements in the areas of (but not limited to) training, department administration, personnel, equipment or department consolidation.
- An analysis of the efficiency and effectiveness of emergency response and benefit to the population served.

The study should also take into account:

- Geographic area, population density and other factors that encourage communities’ and fire service providers’ voluntary participation.
- Funding sources for the project if implemented.
- Cooperative training among departments and equipment procurement among departments.
- Employment issues associated with combining existing agencies and entities into a regional or multi-jurisdictional entity for consolidation projects.
- An analysis of best practices in the creation and functioning of public-safety-related service planning delivery models.
- A preliminary set of operating procedures for cooperative shared fire and rescue service systems.

More information on the Service Planning Grant Program can be found on the SFMD website under the “Service Planning Grant Program” section at www.sfm.dps.mn.gov.

Minnesota Board of Firefighter Training and Education (MBFTE)

Thanks to a \$1.3 million base-budget increase for the MBFTE, the fire service has just over \$4 million in fiscal year 2018 for various training reimbursement opportunities. This increase will allow fire departments to receive a more consistent amount of reimbursements each year, which will in turn allow them to better manage their training budgets.

The MBFTE, along with the three Fire Service Specialists, have been busy assisting fire departments by educating them about the reimbursement and other training opportunities that exist for fiscal year 2018. The MBFTE also attends various conferences and regional and county fire meetings in a continuing effort to communicate with the fire service about the resources available to them through the MBFTE and the entire SFMD.

Lastly, at the MBFTE Board meeting on Nov. 14, the board requested that the Executive Director bring forth a proposed plan to update the MBFTE's Qualified Instructor program, and to also bring forward a preliminary request for proposal to offer an online learning management system. Both of these issues were noted in the Firefighter Training Study report that came out in late June.

Sectional Fire Schools

Here is the 2018 Minnesota State sectional fire schools schedule to date:

- Alexandria Feb. 24-25, 2018
- North Mankato March 3-4, 2018
- Detroit Lakes March 10-11, 2018
- Rochester April 7-8, 2018

School Inspection Team

It's about halfway through the school inspection season, and our inspectors are focused on completing their assigned inspections for the year. This is no small task, because on average, each inspector is assigned nearly 120 school buildings per year, with many buildings containing more than one school. In addition to inspecting schools, the team provides site-visit consultations to school districts; inspects school-based licensed child care programs; and provides training opportunities to school maintenance staff, private safety consultants and local code officials.

Residential Team Update

The Residential Care and Lodging Team would like to thank all of the local jurisdictions that contract to conduct inspections of hotels for us, jurisdictions that conduct inspections of Department of Human Services-licensed facilities for us, and of course those jurisdictions that do both. Without this help from local jurisdictions, the RC&L Team would not be able to provide timely customer service while staying on schedule with the mandatory hotel inspections. In addition to conducting the hotel and DHS-licensed facility inspections, the RC&L Team assists many jurisdictions with fire code violations and complaints each month. Requests are generally assigned to a deputy by the RC L Team supervisor.

Minnesota State Fire Department Association Conference

It is never too early to plan to attend the 2018 MSFDA conference. This year the conference will be held April 26-28, 2018, in Alexandria. The Alexandria Fire Department has been planning the conference for two years, and they have many exciting training sessions planned and events for the whole family to attend. All the MSFDA Board members have been encouraging their regional members to support and attend the 2018 MSFDA conference.

Minnesota Office of Pipeline Safety's 2018 Priorities

- Pipeline Safety Inspections
 - MNOPS will conduct annual inspections of pipeline operators throughout Minnesota. MNOPS conducts annual inspections of all intrastate pipeline companies. Inspections focus on review of company maintenance, operations, procedures, emergency response and training for compliance with regulations. Enforcement is utilized as necessary to address regulatory non-compliances.

- MNOPS will conduct investigations of pipeline incidents to determine cause and prevent recurrence of similar incidents.
- Underground Damage Prevention
 - MNOPS will carry out education, investigation and enforcement to ensure contractors, utility operators and the public are safe when working with and working around underground utilities.
- Federal Grant Submissions and Program Evaluation
 - MNOPS will operate its pipeline safety program within applicable federal grant guidelines and participate in annual grant reporting and program evaluation. Federal pipeline safety grants fund MNOPS up to 80 percent.
- MNOPS Database Upgrades
 - MNOPS will continue to upgrade and enhance its Pipeline Safety Program Database. The system is vital for tracking inspection, investigation and educational activities. The system is used by all MNOPS staff to efficiently carry out the role of MNOPS throughout Minnesota.

MNCAER Pipeline Safety Awareness Training

Minnesota Pipeline Community Awareness Emergency Response (CAER) serves to collectively provide pipeline safety information to Minnesota emergency officials, including local fire, law enforcement and others through the enhanced awareness of pipeline emergencies, availability of member resources and emergency response capabilities. In addition, CAER pipeline and distribution operators and members jointly support efforts to increase awareness of pipeline damage prevention to excavators and public officials.

The 2018 MNCAER Coordinated Response Exercise training sessions have been scheduled for 26 different locations across the state. I encourage you to sign up for this excellent training and an opportunity to work with other first responders from your region. To view the training schedule and also sign up for this free training, please use the following link: http://mncaer.com/meeting_schedule.

2017 Fire Fatalities

This year has been very tragic for fire fatalities, with 53 in comparison to 39 for the same time period in 2016. Once again, it appears careless smoking will be the leading cause of fire-related deaths in Minnesota. Please continue to challenge your communities with your fire and life safety messages throughout the year.

With your help and persistence in presenting fire prevention education in your communities, we can make a difference in the number of fire fatalities each and every year. One fire fatality is too many in any community, and we ask that you please continue to keep fire prevention in the forefront with your citizens. Thank you for your continued support of the SFMD.