

All Hands Herald

Massachusetts Department of Fire Services

May 2017

Coming Soon
New Learning Management System

DFS Fills Key Senior Positions

**Growing Pains for
Marijuana Grow Facilities**

**New HazMat and Flammable
Gas Training Props**



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The *All Hands Herald* is published three times a year by the Department of Fire Services. Our title incorporates the traditional fire service meaning of all hands working to extinguish a fire. In this publication, all hands is DFS staff providing information, training and assistance with fire service issues which affect all levels of the fire service.

Let us know how you like the *All Hands Herald* and what we can do to make it even more useful to you – our dedicated fire service members and customers.

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Back Cover: New Boiler and Pressure Vessel Program

From the Fire Marshal

In early February, DFS filled two vacancies in our senior leadership team: deputy state fire marshal and hazardous materials division director. Maribel Fournier returned to DFS as the deputy state fire marshal after working at the Department of State Police for five years. Those of us who previously worked with Maribel both inside and outside the agency have the utmost respect for her work ethic and leadership style. I look forward to working closely with her as we address the agency's goals to support the fire service and protect the public.

David DiGregorio was appointed division director of the Hazardous Materials Emergency Response division. He had been the deputy director of the division for over two years and worked closely with former Division Director David Ladd. David comes to his new position with a unique skill set which includes strategic planning, team management, and experience with chemical, biological, radiological, nuclear and explosive (CBRNE) hazards.

Collins Report

Right after I was appointed State Fire Marshal, I requested an organizational review of the Department of Fire Services. DFS has been through a period of intense growth and was also under the leadership of one amazing man for twenty years. Former Marshal Coan had also led the Massachusetts Firefighting Academy for 20 years before he was appointed marshal. It felt like this was the right time to look at the organizational structure of the agency and to see if changes need to be made as we look to provide the best services over the next 20 years.

The Collins Center at the University of Massachusetts and five fire chiefs, each of whom works with a different area of DFS formed a group to conduct the review. The report was complete in early March and was presented to senior staff and supervisors, to a joint meeting of the Fire Service Commission and the Mass. Fire Training Council, and to all DFS employees.

Recommendations from the review will help us recruit a new director of the Firefighting Academy, take steps to improve communication between and among divisions, and to strengthen our internal and external customer service. One of the recommendations was to better train our staff on the required bureaucracy of state government. The review found that the procedures that ensure taxpayer money is spent wisely and transparently and that the hiring process is fair and open, often seem to be needless,

frustrating hurdles for those new to state government. Training can help to alleviate these frustrations.

Article 87

Governor Baker proposed some reorganization of state agencies in what is called an Article 87 bill and the Legislature allowed it to become law. As a result, the Boiler and Pressure Vessel Program at the former Department of Public Safety (DPS) has become part of DFS. Other DPS staff have moved to the Department of Professional Licensure under the Executive Office of Housing and Community Development. We welcome the new staff members and the new responsibility. This staff does not oversee residential boilers, only commercial units, but their expertise was appreciated in the recent investigation into a fatal boiler explosion in Revere. In addition, the oil burner technician certificate of competency program and the Board of Boiler Rules has also moved to DFS.

Board of Building Regulations and Standards

The Board of Building Regulations and Standards (BBRS) is in the process of adopting the 9th edition of the Building Code. The residential portion is based on the International Residential Code. This model code has made changes and adjustments to allow certain design and construction techniques, but only in combination with residential sprinklers. As a member of the BBRS, I have worked hard to educate my fellow board members on the value of adopting the core tenets of the model code as the basis for the state building code. Buildings should be seen as systems. We can balance the fire dangers of truss roofs, lightweight lumber, and open floor plans, by installing fire sprinklers. Removal by Massachusetts amendment of the sprinkler protections weakens the code overall.

Despite residential sprinklers being part of the national consensus code for a decade, the BBRS proposes to allow new construction techniques and designs that present hazards, but has removed the requirement for protection with residential sprinklers from the code. In public testimony, the fire service has objected to removal of sprinkler protection in 1-and 2-family homes from the model code and hopes this sprinkler provision will be restored before



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New Training Props at DFS

for Hazardous Materials and Flammable Gas

Through funds from the 2015 Federal Assistance to Firefighters Grant (AFG), DFS received several new props for hazardous materials and flammable gas training at the Massachusetts Firefighting Academy.

Flammable Gas Training Props

Two new flammable liquid training trays will be used in the new flammable liquids class. Propane can be applied to the trays to simulate a burning flammable liquid.

A two-pressure gas cylinder prop has life sized oxygen and acetylene cylinders that can be configured to leak air to simulate real leaks. The one-ton life-sized chlorine cylinder prop can also be configured to leak air or water. Students learn to use leak kits to stop the leaks in both these props as part of hazardous materials training. Both of these props are mobile and can be used in off-site training.

HazMat Training Railcar Prop

The most significant acquisition through the AFG grant was a new rail car training prop. The process required a great deal of collaboration between DFS divisions from writing the successful grant application, finding a qualified vendor, designing the prop to fit our needs, inspecting construction along the way, and installing the prop on campus.

The railcar prop incorporates three different types of domes into one railcar to save space. The prop was designed based on the most common railcar emergencies that a HazMat team responds to including crude oil, acid, and chlorine or ammonia. This impressive prop is over 14 feet tall, 8 feet wide and 22 feet long. It is designed to simulate leaks of liquid and vapor. Instructors can also engulf the prop in smoke.

The railcar prop will be available for use in May. Curriculum for the 305 hour HazMat Technician course and the HazMat Technician re-qualification course are being adjusted to use the prop. It will also be available to all six district HazMat response teams to use during their monthly trainings.

Thanks to all who helped to bring this prop to DFS. The railcar prop strengthens our already stellar HazMat training program. It took great teamwork to find a vendor to produce the prop exactly to our specifications, to beat the delivery time line and to save \$75,000 from a previously quoted price.

If you want more information about the prop or to schedule it for training, contact the HazMat Training division at Michael.J.Barry3@state.ma.us or (978) 567-3250.

New Learning Management System

Coming Soon

DFS is bringing a critical new technology to our customers. Our new Learning Management System (LMS) software is a Technomedia product. The cloud-based system will allow all users to login at any time from a computer, tablet or smart phone.

The LMS will improve the user experience in nearly every aspect of training from searching for courses to obtaining training records. Key capabilities include:

- Students will be able to search the course catalog by category, course delivery method or with a keyword.
- The course catalog will be available to all, including those without a system account.
- Students will be able to register online for any active course.
- Students will be able to take online courses and receive credit immediately upon completion of a course.
- Users will be able to view upcoming courses.
- Students will be able to evaluate courses online.
- Students will receive electronic certificates for completed courses.
- Users will be able to view and print their training records (1999 to present).
- Students will be able to pay for a course or certification exam online.

The LMS implementation team has been working for nearly 18 months to make the new system a reality. Their work has included the clean-up of 18 years worth of data. The team has determined what data should migrate to the new system, how to migrate that data, validated the data, performed user testing, and trained MFA staff on the system. The team had to migrate records of more than 47,000 students, 800 courses and 31,000 training sessions



LMS testing in the DFS computer lab.

from the old Academy Course Management system to the new LMS, all while working their full-time jobs.

Everyone that registered for a course since 1999 will automatically have an account in the new system. Each user will have to activate their account. New users need a valid email address to create and maintain their system profile. When the new system is ready for use, the LMS implementation team will notify all fire departments and all users that have a valid email address in the current system.

We are grateful to have so many helpful partners in bringing this critical update to the training course management system. We expect the LMS to be ready for use in the summer of 2017.



Screenshot of the new system.

From the Fire Marshal, *continued from page 1*

the final vote. (Note: The outcome of the vote is not known at this writing but should be by the time this is published.) I will continue to work tirelessly to convince the BBRS that sprinklers are necessary in all new homes, especially where these newer building techniques are used.

Federal Grants

Through funds from the 2015 Federal Assistance to Firefighters Grant (AFG), DFS acquired two flammable liquid training trays, a two-pressure gas cylinder prop, a one-ton chlorine cylinder prop and a railroad tank car training simulator. The props will enhance flammable gas and

hazmat training at the MFA. The grant also funded the purchase of updated vehicle extrication equipment for training.

The agency has applied for a 2016 Federal Assistance to Firefighters Grant to purchase an additional maze trailer, another flashover trailer and a tractor trailer to tow these vehicles to training sites around the state. State fire training academies have only been eligible to apply for AFG funds for the past three years (FFY13), and DFS has been successful each of those years, securing a total of \$1.1 million for the fire academy. I want thank our staff for all their hard work.

Growing Pains

Marijuana Grow Facilities



In May of 2013, Massachusetts made medical marijuana legal. Since then DFS has seen companies and entrepreneurs clamoring to obtain building permits for marijuana grow facilities. In 2016, voters made the sale and use of recreational marijuana legal. Retail marijuana dispensaries are scheduled to begin opening in July of 2018. The marijuana industry is expected to grow significantly over the next few years.

Marijuana grow facilities are highly scientific manufacturing-use buildings. The grow portion of the building is separated from the offices and retail areas by airlocks and gown rooms. This separation is an attempt to limit the spread of contaminants and pollen from the outdoors to the controlled marijuana growing areas. Temperature and humidity are closely monitored in growing. Individual grow rooms are compartmentalized to limit the potential spread of mold or disease between plants. Growers are constantly experimenting with lighting arrangements and plant DNA to produce new strains of marijuana and to increase effectiveness of the extracted cannabinoids (the oils extracted from the plants). These facilities are quite different from traditional agricultural greenhouses. Marijuana facilities are filled with scientific equipment and every step of the growing and extraction process is controlled and monitored.

The National Fire Protection Association (NFPA) is currently developing the 2018 edition of NFPA 1: Fire Code. In January, the draft of a new chapter, Chapter 38: Marijuana Growing, Processing, or Extraction Facilities was approved for inclusion. This new chapter references currently accepted provisions regarding the installation of electrical equipment and building construction elements, but also includes provisions specific to marijuana grow facilities:

- The proposed code change limits extraction processes to buildings not containing assembly, educational day care, hospital, nursing home, residential, or detention occupancies.
- Non-hazardous extraction processes (utilizing carbon dioxide, CO₂) must be located within a non-combustible room dedicated to the extraction process, not used for any other purpose. Also CO₂ detection must be provided within the extraction room.
- Liquefied petroleum gas (LPG) extraction processes (propane/butane) must be exhausted in accordance with NFPA 91: Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Particulate Solids. Processes must be conducted within a chemical fume hood or within an enclosure, and electrical equipment within the extraction room must be interconnected with the exhaust system to allow operation of electrical equipment only

when the exhaust system is active. Gas detection is proposed for LPG extraction rooms. Storage of the

LPG containers is not allowed within the extraction room.

- Flammable and combustible liquid extraction and post oil processing (utilizing ethanol/alcohol) must be performed under a chemical hood or a room provided with a compliant exhaust system. Reference is made to the flammable and combustible liquids provisions within Chapter 66 of NFPA 1 (which references NFPA 30: Flammable and Combustible Liquids Code).

The marijuana industry is expected to grow significantly over the next few years.

The current proposed update to 527 CMR 1.00, Massachusetts Comprehensive Fire Safety Code, includes the 2015 edition of NFPA 1 but will not incorporate the proposed language of Chapter 38 for the 2018 edition. In the interim, fire officials should work with building officials and marijuana grow facility design teams to create safe structures. Many of the provisions proposed in the 2018 edition of NFPA 1 regarding LPG handling and flammable and combustible liquids can be found within the current edition of 527 CMR 1.00 in Chapters 69 and 66, respectively. These 2018 NFPA 1 requirements are not enforceable; however, DFS recommends voluntary compliance or suggests the planning board in a jurisdiction adopt these requirements through special permitting/zoning. In addition to the 2018 NFPA 1 provisions, special permitting/zoning requirements within a jurisdiction have been altered to include a requirement for CO₂ monitoring throughout any building where CO₂ is pumped into the atmosphere (to aid plant development). The easiest path to a compliant, safe building is through continued cooperation and coordination with the local building official and the design team from the beginning of the project. The full text of proposed changes to the 2018 edition of NFPA 1 can be viewed at www.nfpa.org/1.

If a marijuana grow facility is proposed in your jurisdiction, please contact the fire protection engineer in your region for assistance. Chris Melite can be reached at 978-567-3376 or Christopher.Melite@state.ma.us for communities located north of the MA Turnpike. Jake Nunnemacher can be reached at 978-567-3377 or Jacob.Nunnemacher@state.ma.us for communities located on or south of the MA Turnpike. Stay safe.

DFS Fills Key Senior Positions

Deputy State Fire Marshal and Director of Hazardous Material Emergency Response Division

State Fire Marshal Peter J. Ostroskey filled two key senior staff vacancies at the Department of Fire Services. Maribel Fournier has been named deputy state fire marshal and David DiGregorio has been appointed director of the Hazardous Materials Emergency Response Division.

Maribel Fournier, Deputy State Fire Marshal

In early February, Maribel Fournier was appointed deputy state fire marshal. She is primarily responsible for assisting the Marshal with the day-to-day management and administration of the Department of Fire Services and for developing policy and implementing major policy objectives.

Maribel is no stranger to the Department of Fire Services. She began her work with DFS in 2007 as the director of human resources and left in 2012 as director of administrative services. She has worked for the Department of State Police since 2012. Her previous accomplishments at DFS include overseeing the renovation and expansion of the Stow campus and the acquisition of the Springfield campus.

Maribel has an extensive history of service in public safety. She has worked at the Department of Corrections, the Department of Fire Services and most recently the Department of State Police. She holds a Master of Business Administration from Fitchburg State University. In her latest position as chief administrative officer for the Department of State Police she oversaw a multi-million dollar operating budget, the capital budget, hundreds of sworn and civilian employees, and represented the agency to the executive, legislative and judicial branches.



David DiGregorio, Hazardous Materials Emergency Response Division Director

David DiGregorio was promoted from deputy director to division director of the Hazardous Materials Emergency Response division in February. For over two years before this, he worked closely with former Division Director David Ladd. As deputy director of the HazMat division, he developed and managed six hazardous materials response teams across the state. He also managed the specialized Joint Hazardous Incident Response Team that cross-trains hazardous materials and bomb technicians and the Maritime Incident Response Team that responds to incidents on the water and offshore. In addition, David oversaw the implementation of a new software system that assists in deployment of resources, report writing, and inventory management that improves management at the team and state levels.

Before coming to DFS, David DiGregorio spent 32 years with the U.S. Army and the Massachusetts Army National Guard as a physician assistant, medical team leader with the 1st Civil Support Team that deals with weapons of mass destruction, and as deputy state surgeon overseeing deployment of all medical assets.

David has a Master of Science degree in Emergency Management from the Massachusetts Maritime Academy, a Master of Science in Physician Assistant Studies with a specialization in Administrative Medicine from the University of Nebraska Medical Center, and a Bachelor of Science from the University of Nebraska Medical Center.



Spray Foam Insulation

Spray Polyurethane Foam (SPF), commonly known as spray foam insulation, is being used in more and more commercial and residential applications. Energy efficiency requirements and the green building movement are driving this change. But spray foam insulation has unique hazards that may affect safety during firefighting operations and impact the performance of the sprinkler system or other fire protection design features.

What is SPF?

Spray Polyurethane Foam (SPF) is formed by the reaction between two chemical mixtures, methylene diphenyl diisocyanate (MDI) and a blend of polyols, catalysts, blowing agent, flame retardant, and surfactant. The two liquid chemicals are applied as a spray. The chemical reaction is rapid and exothermic (produces heat). The end result is a hardened foam product interspersed with air bubbles (closed or open cell). The liquid spray application aids in sealing air gaps and provides significant coverage of the area to be insulated (when compared to traditional insulation methods).

Uses of SPF

In commercial buildings, SPF is commonly applied to the underside of the roof, and/or the connection between the roof and walls. The SPF adds rigidity to the roof structure and increases the thickness of the roof assembly. These properties are benefits in envelope construction and energy efficiency but can create issues for the fire service.

The structural rigidity of SPF on the underside of a roof can create a false sense of structural stability for fire fighters working on the roof. In some cases, the structural integrity of roof members is compromised but the rigidity of the roof with SPF applied masks the effects of structural failure.

Roof assemblies are thicker when SPF has been applied. Because it is sprayed directly on the underside of some roofs, multiple stepped cuts may be necessary to fully penetrate when ventilating a fire.

Increased roof rigidity and thickness also occurs in residential structures that use SPF and poses the same obstacles to firefighting operations.

Issues in Buildings with SPF

SPF is considered a thermoset or thermoplastic material. It is not designed to burn, rather the surface chars to create a pseudo-barrier; however, the material can soften and deform when exposed to heat. 780 CMR, Massachusetts State Building Code, Chapter 26 contains requirements for foam plastic insulation which applies to SPF installations



in commercial buildings. In most applications, a thermal barrier is required to separate the SPF from occupiable areas in the building.

Thermal Barrier Requirements

Thermal barriers are categorized as ½"-thick gypsum wall-board or an equivalent thermal barrier material. One commonly used equivalent thermal barrier material is intumescent paint. Criteria for an acceptable thermal barrier include limiting the temperature of the unexposed surface area to 250°F after 15 minutes of exposure, and the barrier must remain in place for at least 15 minutes. If a prescriptive thermal barrier cannot be provided, the entire wall or floor assembly, including the SPF, can be tested. The thermal barrier requirements are exempted for certain applications listed in 780 CMR Chapter 26 including cooler and freezer walls, garage doors, and some attic and crawl spaces (see 780 CMR for additional requirements).

SPF insulation in residential applications must be provided with a similar thermal barrier (780 CMR R316). While conducting smoke/carbon monoxide alarm inspections, several fire departments have discovered basement walls with exposed SPF. In accordance with M.G.L. s. 148 s. 28A, the fire departments notified their building inspector, and the proper thermal barriers were installed.

Combustible Concealed Spaces

SPF is commonly applied in areas that are difficult to reach including concealed spaces, because it is applied as a liquid spray. Intumescent paint is commonly applied as the thermal barrier in such spaces and serves to prevent the spaces from becoming combustible concealed spaces.

In sprinklered buildings, most combustible concealed spaces must be protected by sprinklers. If the building design did not account for the sprinkler system in

Continued on next page



Safety Still an Issue in Bars and Nightclubs

Occupancy Laws Violated 14 Years After the Station Nightclub Fire

Do you remember these top songs from 2003?

- In Da Club.
- When I'm Gone.
- Bring Me to Life.
- Get Low.
- Calling All Angels.
- Here Without You.
- What Was I Thinkin'?

Then you're old enough to remember the tragic fire at The Station nightclub in Rhode Island. One hundred people died when a band's theatrical pyrotechnics lit illegal soundproofing materials on fire in an overcrowded club without sprinklers. We want to think that club patrons, owners, and managers would remember the lessons learned from that fire.

The Station nightclub fire happened on February 20, 2003. This year, on the anniversary weekend of that fire, code compliance officers with the Department of Fire Services' Fire Safety division, along with local fire officials inspected a series of bars and nightclubs in Berkshire and Hampden Counties. One Berkshire County establishment had an occupancy of 84, yet the inspectors found nearly

double that number of patrons inside, more than 170 people. The inspectors immediately ordered the lights on, music off, and everyone out of the building. The owner was given the opportunity to re-occupy the building up to the occupancy limit but chose instead to shut down for the night given the late hour. The owner was issued a non-criminal citation and local building officials are determining whether the violation of M.G.L. c. 148, s. 26G½ will result in an order to install fire sprinklers.

In 2004, the Comprehensive Fire Safety Act was passed requiring many bars and clubs to install sprinklers. While those with an occupancy of less than 100 were not required to retrofit with sprinklers 2004, the law does require sprinklers in smaller establishments found to exceed their occupancy limit.

The February inspections in Berkshire and Hampden Counties were made possible through a federal Assistance to Firefighters Grant Program - Fire Prevention and Safety Grant to improve nightclub safety. The inspections show that much more education about nightclub safety has to happen across the state. The grant included safety training for club managers and owners, although few took part.

Spray Foam Insulation, *continued from previous page*

combustible concealed spaces, or if the sprinkler installation is not phased in after SPF is applied, obstructed sprinklers and insufficient coverage can occur.

It is also not uncommon to observe chipped SPF where trades people needed access to horizontal supports or space to install other equipment. If intumescent paint was applied as a thermal barrier, it is important to ensure that the paint was not removed or damaged during construction.

Where SPF is applied after a sprinkler system is installed, the fire prevention officer must pay special attention to ensure that SPF spray/overspray did not get into any open sprinkler piping, bury installed sprinkler heads, and/or come into contact with sprinkler heads.

Massachusetts and other locations across the U.S. have had several fires during, or immediately after, SPF application. Although the percentage of SPF applications that result in fire are minimal, it is important to understand the risks associated with the installation of this material. Installers must always obtain a building permit to install SPF and the fire service must be notified of applications within their jurisdiction.

The Division of Fire Safety continues to gather information concerning issues with spray polyurethane foam. If you have a fire during the application, or immediately after the application of SPF in your jurisdiction, contact Jake Nunnemacher at (978) 567-3377 or by e-mail at Jacob.Nunnemacher@state.ma.us

New K9 Assigned to West Team

The Massachusetts State Police Fire and Explosion Investigation Unit (F&EIU) is pleased to announce its newest canine (K9). Bijou comes to us as a result of the generosity of the Massachusetts Property Insurance Underwriters Association (MPIUA) also known as the Massachusetts FAIR Plan (Fair Access to Insurance Requirements). The FAIR Plan has supported the F&EIU K9 program since its inception in 1989.

Bijou is a 1½ year old female black lab who was selected after a tryout by K9 trainers Sergeant Paul Horgan and Trooper Mike Fagan. Bijou is from the Guiding Eyes Foundation and is partnered with Trooper Patrick Clayton of the West Team. Bijou will be in training for the next several months. First, the K9 has familiarization training, next comes her initial imprintation training. Finally Bijou and Trooper Clayton will attend a rigorous certification program.

Bijou and Trooper Clayton will replace the current West K9 team of Trooper Joe Gura and K9 Nell. Nell is ten years old and will be retiring at the end of the year. Nell has been partnered with Trooper Gura for five years. Prior to that, Nell partnered with another trooper on the Central Team.

Trooper Clayton and Bijou in training at DFS with direction from Trooper Fagan.



Massachusetts Firefighter Service Awards

Recognizing Length of Service

Massachusetts Firefighter Service Awards are presented to firefighters who have served for 20 years or more. The length of service award is available to call, career, and volunteer members of fire departments who meet the requirements. The awards are one way for the department, the Massachusetts Fire Service Commission and the Department of Fire Services to show their appreciation and gratitude to all firefighters who serve and protect their communities throughout the Commonwealth.

Fire chiefs may nominate their members in one of three categories: Massachusetts Career Firefighter Service

Award, Massachusetts Call Firefighter Service Award, and Massachusetts Volunteer Firefighter Service Award. Each award recipient receives a certificate signed by the State Fire Marshal, Chairman of the Massachusetts Fire Service Commission, and head of their fire department. In addition, an award pin was designed by the Fire Service Commission for each of the three categories. The pins can be purchased and distributed by fire departments to award recipients. For information about making nominations or ordering pins, visit www.mass.gov/dfs and search for "Fire Service Awards."

Mobile Live Fire Training Unit Incident

Investigation Concludes

The Mobile Live Fire Training Unit (MTU) has been used successfully more than 3,700 times by the Massachusetts Firefighting Academy over 11 years to provide live fire training opportunities for firefighters in a controlled environment.

After a fall training incident injured two student firefighters and one instructor from the Massachusetts Firefighting Academy (MFA), State Fire Marshal Peter J. Ostroskey launched a comprehensive investigation into the cause. “While firefighting is an inherently dangerous job, there is no higher priority than the safety of our students,” said Ostroskey.

The incident occurred on October 4, 2016 at South Hadley Fire District #2 during fire suppression training inside the MTU. The MTU uses propane gas to fuel three different props (stove, bed and rollover) inside the trailer that firefighters practice extinguishing. The firefighters and the inside safety officer were in the MTU conducting a fire suppression training evolution when an unexpected ignition of propane gas caused a flash fire and explosion. The firefighters immediately evacuated the MTU and were treated for minor injuries.

Investigation

State Police assigned to the Fire & Explosion Investigation Unit were asked to determine the cause of the explosion. The Department of Fire Services (DFS) conducted a review of the DFS/MFA operational procedures in general, and on that day. The manufacturer of the MTU, Pro-Safe Fire Training Systems, assisted investigators in re-creating the circumstances that led to the explosion, and determining steps to take to prevent a recurrence. Mobile training units manufactured by Pro-Safe are used by other fire departments and fire training academies across the country.

Cause

Investigators determined that the cause of the training accident was an unintentional extinguishment of a pilot light during training operations. This allowed an unknown quantity of gas vapor to build up inside the MTU. When the stove prop was lit, the accumulated gas ignited and caused an explosion.

Conclusions and Next Steps

The final incident report had several recommendations for changes and updates to be made by both the manufacturer



and in DFS/MFA operational procedures to minimize the risk of a similar occurrences. These include:

1. The product manufacturer will make the following changes to the prop:
 - Installation of a deflector plate in front of the roll-over prop to prevent unintended extinguishing of the pilot flame by errant straight streams from firefighter hand lines.
 - Software update to monitor for a decrease of temperature of the pilot flame thermocouple and immediate shut down of a fireplace if a temperature decrease is detected.
 - Elimination of the prop's automatic mode to prevent potential confusion if the operator is unintentionally operating in automatic mode. When in automatic mode, a fire prop can re-ignite if the prop sensor determines that insufficient water was used on the prop during extinguishment.
2. Have ProSafe provide an operator training course. This will help ensure that all MTU operators are properly trained by the manufacturer in the safe operation of the MTU.
3. Develop a detailed set of Standard Operating Procedures (SOPs) to make it easier for infrequent operators to maintain proper operational procedures. Develop a quick reference guide to be housed in the MTU control room.
4. Implement a more stringent record and report keeping requirement on all live fire training evolutions in accordance with the requirements of NFPA 1403.

All of the recommendations have been implemented and the MTU will return to service in May.



Technical Rescue Update

Over the past two years, the Technical Rescue Training Program has delivered high quality, realistic, hands-on training programs for Massachusetts firefighters. The program delivered 31 classes this year, up from 28 the prior year. Classes include: rope rescue: operational level and technician level, trench rescue, confined space rescue, surface-swift water rescue operational, surface ice rescue, and incident command for structural collapse incidents.

Technical rescue programs continue to fill with firefighters from across the state. Members of county technical rescue teams who participated in the initial trainings

between 2009 and 2014 have returned along with new team members, to hone their skills. New firefighters are taking technical rescue training after graduating from both career and call/volunteer recruit firefighter training programs. Technical rescue instructors also conduct municipal contract training. Programs have been delivered to District 7 and 8 Technical Rescue Teams, Newton Fire, and the Smithfield (RI) Fire Department.

The Technical Rescue Training Program is delivering an average of one class per week. All courses happen in the “live” environment, which keeps the material current and realistic. This challenges both our students and instructors to ensure a dynamic training environment, while safety remains the number one priority.

The team of technical rescue instructors has grown to 35, with expertise in a range of fields. The instructors serve on a variety of local, regional, state, and federal technical rescue teams. Being a member of one of these teams requires countless hours of training to maintain proficiency in technical rescue disciplines. All of our instructors have used their technical rescue knowledge and skills in the field with their team and/or fire departments.

The Technical Rescue Training Program is excited to announce a new surface water rescue: technician level class will launch in spring 2017, with a pilot program at Turners Falls. Using the previous surface water rescue program as a foundation, the 4-day program will exceed all levels of NPFA 1006. Students will be trained in water rescue, rescue swimming, operating and maintaining a motorized boat, swift water operations and more.



Continued on next page

The Regulatory Crack has Closed

FDA Now Regulating E-cigarettes

By Marty Ahrens, NFPA

E-cigarettes have become increasingly common. In Richard Campbell's April 2016 NFPA report, *Electronic Cigarette Explosions and Fires: The 2015 Experience*, he referenced a statistic from the Centers for Disease Control and Prevention: "12.6% of adults reported ever trying an e-cigarette in 2014." That's a tremendous number of users for a product that did not exist 10 years ago.

While many have been concerned about health issues and the possibility that e-cigarettes could be a gateway to other tobacco usage, reports about fires, explosions and burns caused by the batteries in these devices have raised alarms in the safety and burn communities. At the time Campbell wrote his report, no government agency had regulatory authority over e-cigarettes, although the Food and Drug Administration (FDA) had something in the works.

On August 8, 2016, the FDA's new tobacco rule took effect. The FDA now regulates e-cigarettes and their components. Anyone who has a product safety concern with e-cigarettes or other products regulated by the FDA can file a report at the FDA Safety Reporting Portal.

E-cigarettes are one of many products that have had problems with lithium ion batteries. The Consumer Product Safety Commission (CPSC) has issued numerous recalls of consumer electronics, including computers, cell phones and hover boards. NFPA recently published a tip sheet on lithium ion battery safety for consumers.



Safety issues with consumer products can be reported at the CPSC's saferproducts.gov. To report vehicle safety problems, go to safercar.gov. Both sites also provide information on recalls and complaints already filed.

This article was reprinted with permission from Marty Ahrens and the National Fire Protection Association. Visit her blog post of December 16, 2016 for the original at https://community.nfpa.org/community/nfpa-today/blog/2016/12/16/the-regulatory-crack-has-closed-fda-is-now-regulating-e-cigarettes?order_src=C248

Technical Rescue Update, *continued from previous page*

The Pro Board has granted certification for rope, confined space, and trench rescue programs and certification for surface water rescue is pending. Students who successfully completed a qualified program since July 2012 are eligible to take the written certification exam. Student skills are evaluated and documented during each class. Contact the certification office for monthly test dates and locations.

The technical rescue program coordinators are grateful to students and chiefs for the feedback we have

received on our programs. Every evaluation is reviewed and considered when making decisions for equipment purchases, program development and instructor development. Without this honest and critical feedback, we would not be able to provide these top-notch programs.

To learn more about technical rescue training or to host a class, please contact the Technical Rescue program at Mark.McCabe@state.ma.us or (978) 567-3214.

Fire Investigation News

This winter there were an unusually large number of fatal fires in Massachusetts. Causes included smoking, smoking on home oxygen, combustibles too close to wood stoves, and space heaters plugged into extension cords and power strips. The absence of working smoke alarms prevented early warning of danger in many cases. How people react to fires can impact their ability to survive. Sadly, reactions and lack of planning contributed to the death toll in these fires. Tragic reactions included feeding the fire by opening doors and windows, re-entering a burning building, trying to fight fire without protective gear, and trying to figure out an escape plan while breathing in toxic smoke. Fire investigators work to determine the circumstances that cause fires and related deaths and injuries so that similar tragedies can be prevented through education, enforcement of existing laws and regulations, and engineering safer environments. However, if fire sprinklers were required in new buildings, many fires would not result in fatalities.

Fatal Electrical Fire in Holyoke

The first fatal fire of the year was on New Year's Day at 106 North East Street in Holyoke. The electrical fire took the lives of three people who were on the fourth and fifth floors. Investigators traced the origin of the fire back to a wall outlet in the living room of a third floor apartment.

The communications connection between the fire alarm system in the building and the alarm monitoring company was broken at 11:47 p.m. on December 30, 2016. Less than 48 hours later, before the connection was restored, the fire that took three lives broke out. Alarms sounded within the building, alerting occupants to the danger, but because the monitoring connection was broken, the fire department was notified of the fire by 9-1-1 calls that came after the fire had been burning for some minutes.

Records indicate that the fire alarm monitoring company called the emergency contact number at the property management company several times over the holiday weekend to alert them to the lost communications connection. The fire alarm monitoring company was only required to contact their customer.

The fire was jointly investigated by the Holyoke Fire and Police Departments, and State Police assigned to the Office of the State Fire Marshal and the Hampden District Attorney's Office.

Stove Fire Caused Beverly Fatality Excessive Clutter Prevented Escape

The cause of the February 25, 2017 fatal fire at 274 Hale Street in Beverly was a stove burner left on for an extended

period of time igniting nearby combustibles. The fire took the life of an elderly woman, the sole occupant of the home. The fire began in the kitchen, the only room in the house with an exit that was not blocked by possessions. The victim was found in the living room and would have had to pass through the fire to escape.

The home had no smoke or carbon monoxide alarms. It is impossible to determine if the two antique heat detectors functioned, but without clear pathways to more than one exit, it is unlikely that the victim could have escaped. Excessive clutter trapped the victim in the house and made it difficult for firefighters to gain entry to attempt a rescue and to fight the fire.

State Fire Marshal Ostroskey said, "No one thinks a fire will happen to them, but when one does, these conditions put residents and responding firefighters in harm's way."

The fire was jointly investigated by the Beverly Fire and Police Departments, and State Police assigned to the Office of the State Fire Marshal and to the Office of the Essex District Attorney.

Boiler Explosion Kills Revere Homeowner

An early morning boiler explosion on February 15, 2017 at 785 Revere Beach Parkway in Revere was caused by over pressurization. The explosion killed the homeowner who was in the basement boiler room. Nine other people escaped unharmed. They were displaced from the 3-unit apartment building.

The explosion was jointly investigated by Revere Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal and to the Office of the Suffolk District Attorney. Experts at the former state Department of Public Safety's Engineering Division provided assistance. This program is now part of DFS.

Smoking Causes Malden Fatal Fire No Working Smoke Alarms

The February 14, 2017 fatal fire at 30 Perkins Avenue in Malden was caused by improper disposal of smoking materials. The fire claimed the life of an elderly couple who lived there. The husband perished in the fire and the wife died at a Boston hospital. There were no working smoke or carbon monoxide alarms in the home.

The fire began in the living room near the couch. The fire was jointly investigated by the Malden Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal and to the Office of the Middlesex District Attorney. The Code Compliance Unit of the Department of Fire Services provided assistance.

Woodstove Caused Fatal Warwick Fire

Several winter fires started when combustibles including stacked wood and kindling placed too close to the woodstove or improperly disposed ashes ignited. The most deadly occurred in Warwick on March 4, 2017.

The March 4, 2017 fatal fire at 405 Richmond Road in Warwick started as a woodstove fire that extended to the structure itself. Five members of the family, the mother and four children ages 7, 9, 12, and 15, perished. The husband and one child managed to escape. The fire started in the first floor kitchen where the woodstove ignited nearby combustibles. Warwick Fire Chief Gates said, "This is a small community of neighbors helping neighbors and our hearts are heavy with the loss the Seago family has suffered."

The single family home was fully engulfed when firefighters arrived. The home was on a dirt road too narrow to allow fire trucks to pass each other. Firefighters shuttled water in pumpers from a pond 1/3 of mile away to the home and then continued in a one-way loop through New Hampshire to return to the pond in a circuit that took 45 minutes. Sub-zero temperatures also impeded firefighting efforts.

The fire was jointly investigated by the Warwick Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal and to the Office of the Northwestern District Attorney. The Code Compliance and Enforcement Unit in the Department of Fire Services and the State Police Crime Scene Services Unit provided assistance.

Fall River Fatal Space Heater Fire in Fall River

A February 10, 2017 fatal fire at 356 Globe Street in Fall River was caused by a space heater overloading an extension cord and power strip. Smoke alarms sounded and two family members escaped. One family member tried to fight the fire with an extinguisher and was overcome by heat and smoke. Despite being rescued and revived by the fire department, the woman later died at hospital.

The fire began on the third floor where a space heater was plugged into both an extension cord and then into a power strip, neither of which was rated to carry the electrical load of the heater.

The fire was jointly investigated by the Fall River Fire and Police Departments, and State Police assigned to the Office of the State Fire Marshal and to the Office of the Bristol District Attorney.

Fatal Space Heater Fire in Milton

The March 6, 2017 fatal fire at One Elias Lane in Milton began when a space heater overloaded an extension cord and caused an electrical fire. The fire took the lives of two elderly men who were sleeping in second floor bedrooms.

Norfolk District Attorney Michael W. Morrissey's office identified the men as Kenneth Guscott, 91, and Leroy Whitmore, 87. Both gentlemen had mobility issues that may have impeded their escape from bedrooms on the second floor. Smoke alarms were present and two other residents escaped.

The fire began in a second floor bedroom where two oil-filled space heaters were operating. One was plugged into a power strip and the other into an extension cord, neither of which were designed to carry the electrical load of a space heater. The fire began at the connection of the extension cord and the space heater.

Ken Guscott was a well known leader in Boston's African American community and a real estate developer.

Smoking Causes Fatal Haverhill Fire Home Medical Oxygen Fueled Fire

A February 4, 2017 fatal fire at 10 Ford Street in Haverhill was caused by the improper use of smoking materials. It is likely the victim fell asleep smoking. He was the 68-year old resident of the first floor of the two-family home. Second floor residents escaped with minor injuries. The fire was fueled by the use of home medical oxygen. Oxygen use increases the amount of oxygen in air, furniture, bedding, clothing and hair, making it easier for a fire to start and spread and to burn hotter and faster.

The fire was jointly investigated by the Haverhill Fire and Police Departments, and State Police assigned to the Office of the State Fire Marshal and the Office of the Essex District Attorney. The Code Compliance Unit of the Department of Fire Services and State Police Crime Scene Services provided assistance.

Quincy Fatal Fire Fueled by Home Oxygen

A February 12, 2017 fire at 13 Bell Street in Quincy was accidental. The fire took the lives of a 67-year old woman and her 19-year old grandson. A third occupant survived the fire by jumping from his second floor bedroom window.

The fire started in the first floor living room where one of the victims had caused past fires by falling asleep while smoking. The victim used home medical oxygen and several cylinders in the room failed during the fire. The release of oxygen fueled the fire that raced up a stairway trapping second floor occupants.

Oxygen use increases the amount of oxygen in air, furniture, bedding, clothing and hair, making it easier for a fire to start and spread and to burn hotter and faster.

The fire was jointly investigated by the Quincy Fire and Police Departments, and State Police assigned to the Office of the State Fire Marshal and the Office of the

Continued on next page

Norfolk District Attorney. The Code Compliance Unit of the Department of Fire Services and State Police Crime Scene Services provided assistance.

Spontaneous Combustion of Oily Rags Cause Fire at State Police Museum in Grafton

A February 26, 2017 fire at the Massachusetts State Police Museum and Learning Center at 44 Worcester Street in Grafton was caused by the spontaneous combustion of oily rags. Workers were at the museum earlier in the day refinishing wooden molding in the second floor conference room where the fire started. Sawdust and rags soiled with stain were left in a plastic trash bag in the room at the end of the work day. The building was not sprinklered.

The fire was jointly investigated by the Grafton Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal. Grafton building and electrical inspectors provided assistance.

"Firefighters did a superb job containing the flames to an area on the second floor. The MSP is grateful beyond words for their efforts in preserving the numerous artifacts and photographs from the department's 151-year history," said State Police Colonel Richard D. McKeon.

Arson Investigations

The fire investigators assigned to the Office of the State Fire Marshal are specially trained state police officers. When they determine a fire is the result of a deliberate act, they are able to launch a criminal investigation to bring the person or people responsible to justice.

Springfield Arsonist Arrested

On March 18, 2017, 30-year old Mardell Davis was charged with setting five arson fires that occurred around midnight on March 12 in Springfield. Dozens were forced from their homes on a frigid night by the fires. State Police fire investigators worked with Springfield Fire and Police to investigate six fires that happened close together in both time and geography that night. One fire was accidental, from the improper disposal of smoking materials. The other five fires were arson. Davis was held by Springfield Police until arraignment on outstanding warrants from Maryland for attempted murder, rape and sexual assault. He was sent to Bridgewater State Hospital for evaluation.

Three Juveniles Sentenced for Arson at MCDI Building

On February 13, 2017, State Fire Marshal Peter J. Ostroskey, Springfield Fire Commissioner Joseph Conant

Home Oxygen Safety

After two recent fatal fires most likely caused by home oxygen use, State Fire Marshal Ostroskey said, "There simply is no safe way to smoke around home oxygen. Turning off the oxygen is not enough because your clothes, hair, bedding and the tubing are oxygen-enriched."

Home oxygen users need to know that oxygen increases the speed at which things burn. Home oxygen therapy increases the amount of oxygen in the environment. It saturates clothing, fabric, hair, beards and everything in the area. Even flame-retardant clothing can burn when saturated with oxygen.

- Never smoke or light a match while using oxygen.
- Keep oxygen, tubing, and containers 10 feet away from flame and heat sources including: candles, matches, lighters, heaters, wood stoves, electric razors, hair dryers, cooking stoves, and smoking materials.
- Do not use petroleum-based products such as oil-based lip balms or lotions. They catch fire easily.

- Do not allow smoking inside a home where oxygen is used. Even if the oxygen is not being used at the time, the home is still saturated with oxygen, and fire can get out of hand quickly.
- If you are going to smoke, disconnect the oxygen, wait ten minutes and go outside to smoke. This allows oxygen time to come off your hair and clothes, and lowers the danger of fire.

The Department of Fire Services has an educational campaign for patients, families, physicians, care givers, firefighters and housing authorities called *Breathe Easy: Using Home Oxygen Safely*. Materials in English, Spanish and Portuguese are available on the DFS website at www.mass.gov/dfs. You can also order materials free of charge from the Department of Public Health's Health Promotion Clearinghouse.



and Hampden District Attorney Anthony D. Gulluni announced that three juveniles were sentenced for setting fire on June 27, 2016 to the vacant Massachusetts Career Development Institute (MCDI) building at 140 Wilbraham Avenue in Springfield. The fire consumed the building and fire suppression efforts continued for over 24 hours. The estimated loss is more than \$500,000. Five firefighters were injured.

Two of the juveniles previously pled guilty and are in juvenile detention. The third individual pled guilty and was sentenced as an adult to 2-1/2 years in the house of correction on January 26, 2017. The three were charged with breaking and entering into the MCDI building and a nearby business in addition to arson.

The fire was set in a pile of carpet squares and other debris on the second floor of the building. The fire smoldered for a long time before erupting into flames.

"It's important for the public to know that we relentlessly pursue those who commit the crime of arson with our local fire and police partners to bring strong cases to prosecutors so they can win justice for the community," said State Fire Marshal Ostroskey. "Arson fires are never victimless crimes. Tax revenue, business opportunity, and the sense of community are all damaged. Vacant building fires are one of the most dangerous types of fires for firefighters." One firefighter is injured at every seven vacant building fires, compared with one injury at every 44 structure fires, according to the Massachusetts Fire Incident Reporting System (MFIRS).

The fire was jointly investigated by members of the Springfield Fire Department and State Police assigned to the Office of the State Fire Marshal. The case was successfully prosecuted by Hampden District Attorney Anthony D. Gulluni's office.

Teenager Convicted of 'Swatting' Threats

Reprinted from MSPnews.org <http://www.mspnews.org/2016/12/teenager-charged-with-convicted-of-swatting-threats/>

An investigation by the Massachusetts State Police Computer Crimes Unit, other MSP units, the Essex District Attorney's Office, and other agencies resulted in a guilty plea in November by a 17-year-old Andover male in connection with several "swatting" incidents. "Swatting" is the term for using the Internet to anonymously make hoax threats, including bomb threats.

The investigation that led to the suspect began in early April following "swatting" phone calls that were received in Massachusetts, Rhode Island, New York, and Florida. Massachusetts State Troopers assigned to the Computer

Crimes Unit, Bomb Squad, Crime Scene Services Section, and Joint Terrorism Task Force, as well as troopers from the Rhode Island State Police, FBI, Homeland Security agents and Andover Police officers executed a search warrant in the investigation.

The suspect's home was searched for digital media

with the help of the Mass. State Police Computer Crimes Unit's K-9 "Winnie," a dog specially trained in detecting hidden electronic devices (pictured). Investigators located an anonabox router – a device that allows a user to anonymously connect to the Internet — in the suspect's bedroom. Numerous digital devices were seized for forensic examination, which revealed evidence of online messaging between a group of online hackers talking about bomb threats they had conducted.

The investigation determined that the teenager was the leader of a group of online hackers who used anonymous Internet service providers to conduct bomb threats and swatting calls across the United States. Investigators interviewed the teenager, who admitted to destroying evidence just prior to police conducting the search warrant.

Investigators learned that the teenager had made swatting calls on April 15 to Jordan's IMAX Theaters in Natick and Reading, and had also previously made swatting 911 calls to Florida, New York and Rhode Island. The juvenile also made calls to residents in Wilmington and Woburn. The juvenile was familiar with more than a dozen locations in Massachusetts that received swatting threats, and was also aware of bomb threats made to locations in Little Falls, N.Y., and Spring Valley, N.Y.

The suspect was indicted by the office of Essex District Attorney Jonathan Blodgett. Faced with the evidence collected during the investigation, the suspect pleaded guilty to conspiracy and bomb threat charges. Prosecutors requested a 3- to 5-year state prison sentence. A judge, however, sentenced the teenager to Department of Youth Services custody until his 21st birthday.



K-9 Winnie of the Computer Crimes Unit.

Uxbridge Fire Inspector's Discovery

Led to Recall of Smoke/CO Alarm

Last November, the U.S. Consumer Product Safety Commission (CPSC) and Kidde announced a voluntary recall of 5.1 million NightHawk talking combination smoke/carbon monoxide (CO) alarms manufactured between June 1, 2004 and December 31, 2010.

The hard-wired alarms can fail to continue to chirp when they reach their 7-year end of life if the batteries are replaced. This leads consumers to incorrectly believe the alarms are still working, and poses the risk that people will not be alerted to a fire or CO incident.

The problem with these alarms was first noticed when Uxbridge Deputy Chief and Fire Inspector Steven Tancrell found that the same make and model alarm had failed at several inspections of homes in the same development. The alarms chirped and the owners were replacing the batteries, testing them once and putting them back up on the ceiling without a second test. Deputy Tancrell duplicated these steps and found the alarm testing for smoke on the first test after putting in new batteries, and then not making any alarm on subsequent tests. He also put the alarms into a smoke and carbon monoxide environment where they did not alarm in either condition.

At first, Kidde told the fire department that the alarms were properly indicating the end of life of the carbon monoxide part of the alarm, which caused a chirp every 30 seconds. However, the alarm was not continuing to give the end of life signal after people changed the batteries.

Deputy Chief Tancrell had discovered eight homes with failing alarms when he reported the discovery to the State Fire Marshal's Office, Kidde and the CPSC. He provided them with alarms he recovered. He ultimately found 13 homes with these defective detectors in his town. The Uxbridge Fire Department received notice that the deputy's research led to the recall. The lead CPSC investigator thanked the Uxbridge Fire Department and DFS for their roles in discovering the dysfunctional smoke alarms and their recall.

Recalled

Kidde NightHawk Talking Combo Smoke/Carbon Monoxide (CO) Alarms

Manufactured between
June 1, 2004 and
December 31, 2010

Model number KN-COSM-IB

Contact Kidde at
855-239-0490 or online at
www.kidde.com for more
information.



Model Number

MODEL # KN-COSM-IB
BATTERY BACKUP



Manufacture Date

• 2008 Mar. 31 •

Consumers should immediately stop using the recalled alarms and contact Kidde directly for a free replacement alarm or a discount on a new alarm, based on date of manufacture. Call Kidde toll-free at 855-239-0490 from 8 a.m. to 5 p.m. ET Monday through Friday or online at www.kidde.com. Click on "Product Safety Notice" for more information. You can find the recall information on the U.S. Consumer Product Safety Commission's website at www.cpsc.gov (recall number 17-031).

The model number is KN-COSM-IB. The alarms are hard-wired into a home's electric power. The unit has a compartment on the back for the installation of a replaceable 9V backup battery. The alarm is white, round and measures about 5 to 6 inches in diameter. "Kidde" is engraved on the front of the alarm. "Kidde," the model number and manufacture dates are printed on a label on the back on the alarm.

The hard-wired alarms can fail to continue to chirp when they reach their 7-year end of life if the batteries are replaced. This leads consumers to incorrectly believe the alarms are still working.

Rolling Nominations Being Accepted

for 28th Annual Firefighter of the Year Awards

The Department of Fire Services (DFS) is accepting nominations for the 28th annual Firefighter of the Year Awards. Since its inception in 1990, the annual Firefighter of the Year Awards has grown from a simple ceremony to honor firefighters that performed heroically to the premier event in the fire service to recognize firefighters and the outstanding work they do both on and off-duty.

Fire chiefs are asked to review incidents in their own department in the last year and nominate candidates who have gone beyond the call of duty to serve their community. The acts of bravery must have occurred between July 1, 2016, and June 30, 2017, and follow the guidelines that were included in the February DFS Briefs. The guidelines can also be found online at www.mass.gov/dfs and search for "Firefighter of the Year Awards".

For the first time, DFS is accepting nominations on a rolling basis for this award. Many chiefs suggested that it would be easier to make nominations while incidents were fresh in their minds. Nominations must be postmarked by July 14, 2017, and sent to the Department of Fire Services c/o Kerry Weihl.

The Heroic Awards Committee will meet to review the nominations and forward their decisions to the Governor in early September. We plan to hold the annual awards ceremony this fall. Fire chiefs who have submitted nominations will be invited to meet with the committee to further discuss their nomination(s) and to answer any questions that the Committee may have.

New Arson Prop

Gives Students Real Life Experience

Students in this spring's Advanced Fire Investigation course were the first to use the new Arson prop built on the DFS Stow campus. The small 4-room house will be used by fire investigators learning to examine forensic evidence at an incident scene and compare it with witness statements in real life scenarios. The arson prop has fire resistant walls so that it can be reused with minimal reconstruction by DFS Engineering staff between classes. It also has fire sprinklers so investigators can learn how sprinklers impact the fire scene. The new prop is a great improvement over the previous one-room arson prop, which lasted for 20 years. The new building will also be used for accelerant and explosive canine training. State Police chemists have also used it for a blood spatter class for use at crime scenes.



You Tube Burn Awareness Video Contest

Winners Announced

The 9th annual statewide YouTube™ Burn Awareness Video Contest award ceremony was held March 16, 2017 at the Shriners Hospital for Children® — Boston. State Fire Marshal Peter J. Ostroskey was joined by contest co-sponsors Ron Meehan from the Massachusetts Property Insurance Underwriting Association (MPIUA) and Captain Rick Tustin, president of the Massachusetts Association of Safety and Fire Educators (MaSAFE).

Winning Videos

Twenty-eight teams from eight high schools in Ayer-Shirley, Braintree, Masconomet Regional, Melrose, Maynard, Methuen, Millis, and Worcester submitted entries. While all of the videos were creative and interesting, the winning team was from Millis High School for *The Extinguisher Superhero*, which included a song written and performed exclusively for the video. Second place went to a team from Masconomet Regional High School for *The Chirp*. The third place winners were from Millis High School for *The Fire Safety Squad Rap*. Three teams from Melrose and Millis High Schools received honorable mentions for their entries. All six videos can be seen on the Department of Fire Services YouTube™ channel at www.youtube.com/DFSOSFM.

Judges

Judges for the contest included Chief David Mottor, vice-president of the Fire Chiefs' Association of Massachusetts; Ron Meehan for the Massachusetts Property Insurance Underwriting Association; Lt. Steve Lavoie, president of the Fire Prevention Association of Massachusetts; Captain Rick Tustin, president of MaSAFE; Jeanne McCue, public relations and marketing specialist for Shriners Hospital for Children® — Boston; April Hart, from the National Fire Protection Association; Barry Ouellette,

videographer with Ouellette Productions; Captain David DeMarco, assistant coordinator of the Student Awareness of Fire Education (S.A.F.E.) Program, and Jennifer Mieth, public information officer for the Department of Fire Services.

State Fire Marshal Ostroskey said, "In January, a Concord, N.H. third grader was severely burned trying to imitate a stunt he saw on YouTube™. This underscores the continued need for this contest as a way to teach young people about fire safety and media literacy."

Kevin Keating, interim administrator, Shriners Hospitals for Children® — Boston, lauded the students for their work on creating burn awareness and prevention messages, "Burns are among the most devastating injuries a person can incur and education is the key to prevention. The YouTube™ video contest complements our mission at the Boston Shriners Hospital by getting the word out about ways to minimize burn injuries at home, school and in the community. We are honored to sponsor the awards ceremony each year and celebrate the creativity of Massachusetts high school students."

MA-RI FAIR Plan Grand Prize Sponsor

Ron Meehan, of the Massachusetts Property Insurance Underwriting Association (FAIR Plan) said, "Supporting this contest fits with our mission of reducing fires in the Commonwealth and the damage they do to life, property and communities." The FAIR Plan presented the grand prize of a digital video camera to the winning team's school.

MaSAFE Contest Sponsor

"The goal of the contest is to counteract inaccurate and dangerous information in many YouTube™ videos. The contest allows teens to use video to explore what they need to know about fire and burns without getting hurt," said Captain Rick Tustin, president of MaSAFE. Winning teams

received gift certificates to Best Buy™ from MaSAFE. The first place team shared \$200 in gift cards; the second place team shared \$100 in gift cards, and the third place team shared \$50 in gift cards.



Millis High School contest winners at the awards ceremony with fire officials and contest sponsors.

Inspection Requirements for CO Alarms

When Selling or Transferring 1-and 2-Family Homes

During the cold weather months, incidents of carbon monoxide (CO) exposure increase, often resulting in tragic deaths. In many cases, CO alarms were not functioning or were missing from the building.

Over 10 years ago, Massachusetts enacted "Nicole's Law" (M.G.L. c. 148A, s. 26F½), which requires the mandatory installation of carbon monoxide alarms in every residential structure. The Board of Fire Prevention Regulations (BFPR), developed a comprehensive set of regulations about technical requirements of the law (527 CMR 1.00, 13.7).

A crucial aspect of the law is the CO compliance inspection by fire departments triggered by either the sale or transfer of residential buildings. Yet departments have found missing or malfunctioning CO alarms during response calls in buildings that were sold or transferred after Nicole's law went into effect.

DFS legal staff notes that according to Nicole's Law, the use of the words sale or transfer applies to any legally recognized change of ownership of a building or structure, in whole or in part, by means of a written document. In most instances, this involves the transfer of the property for any consideration (sale or payment of



some sort) with a written deed being recorded at the Registry of Deeds. However, ownership changes can also occur without any consideration at all and without being properly recorded. Examples include a transfer of property by a gifted deed, or a transfer into a realty trust which has not been recorded at the Registry.

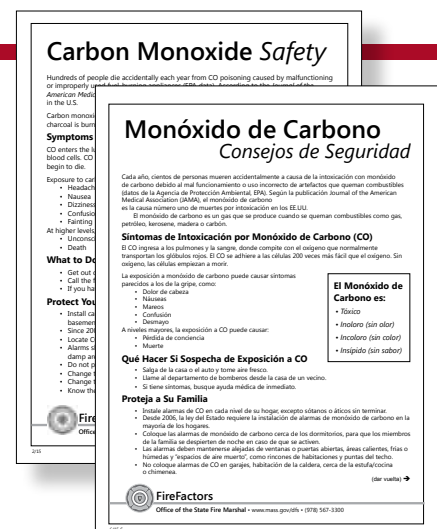
Guidance about the application of Nicole's Law was sent to interested groups and associations including the Massachusetts Commissioner of Banks, the Massachusetts Association of Realtors, and the Massachusetts Real Estate Bar.

For questions about the correct application of this law, contact the legal department at the Department of Fire Services (978) 567-3181.

Carbon Monoxide Safety Education

Hundreds of people die accidentally each year from carbon monoxide (CO) poisoning caused by malfunctioning or improperly used fuel-burning appliances (EPA data). According to the Journal of the American Medical Association (JAMA), CO is the number one cause of poisoning deaths in the U.S.

The Department of Fire Services has public education materials about the dangers of CO. Tragically, many people hear a CO alarm in their home and look for signs of danger, forgetting that CO is not detectable. When they do not find evidence of danger, they believe that the alarm has sounded accidentally, putting themselves at risk of CO poisoning. Fire service personnel must be vigilant in educating the public about the dangers of CO. You can find public education materials at www.mass.gov/dfs. Search for *CO Safety*. We have materials in Spanish and English and pamphlets that focus on Winter CO safety and General CO safety.



Massachusetts Firefighting Academy *Graduations*

Chief Fire Officer Program



Chief Fire Officer Program

On Thursday, February 2, 2017, 31 fire officers graduated from the 23rd offering of the Massachusetts Firefighting Academy's Chief Fire Officer Management Training Program. The 13-week program was developed in accordance with National Fire Protection Association Standards for chief fire officers, and is delivered jointly by the Edward J. Collins, Jr. Center for Public Management at the University of Massachusetts and the Massachusetts Firefighting Academy. It is a comprehensive course providing training in the non-fire suppression aspects of managing fire departments. The fire service leaders who complete this program are committed to continually developing their management and leadership skills in order to provide the highest level of service for their communities.

The graduates serve the following fire departments: Andover, Barnstable, Burlington, Cambridge, Concord, Dartmouth District #1, Foxborough, Gloucester, Halifax, Harwich, Hingham, Leicester, Lynn, Marshfield, North Andover, Northbridge, Orleans, Oxford, Plainville, Revere, Sandwich, Tewksbury, Waltham, Westborough, Westfield, Weston and Worcester.

Class #250



Career Recruit Firefighter Training

The Career Recruit Firefighter Training program is 50 days long. Upon successful completion of the Recruit Program all students have met the standards of National Fire Protection Association 1001 and are certified to the level of Firefighter I and II, and Hazardous Materials First Responder Operational Level by the Massachusetts Fire Training Council, which is accredited by the National Board on Fire Service Professional Qualifications. The training is held at both the Stow headquarters of DFS and at the new DFS Springfield campus.

Class #251



Class #250

On December 23, 2016, members of Class #250 of the Career Recruit Firefighter Training program graduated. The 37 graduates, 35 men and two women, represent the 20 fire departments of: Boxford, Devens, East Bridgewater, Everett, Falmouth, Hanson, Harwich, Holden, Hopkinton, Lakeville, Medford, Methuen, Newton, Norwood, Salem, Seekonk, Westwood, Weymouth, Winthrop and Woburn.

Class #252



Class #251

On February 7, 2017, members of Class #251 of the Career Recruit Firefighter Training program graduated. The 35 graduates, all men, represent the 16 fire departments of: Canton, Dracut, Gardner, Gloucester, Harwich, Lakeville, Methuen, Natick, Peabody, Randolph, Seekonk, Stoneham, West Barnstable, Westminster, Woburn, and Yarmouth.

Class #252

On March 15, 2017, members of Class #252 of the Career Recruit Firefighter Training program graduated. The 33 graduates, 32 men and one woman, represent the 14 fire departments of: Acton, Attleboro, Charlton, East Bridgewater, Gardner, Gloucester, Lakeville, Needham, North Reading, Salem, Taunton, Waltham, Walpole, and Weston.

Call/Volunteer Recruit Firefighter Training

The Call/Volunteer Firefighter Recruit Training program is unique in that it delivers a standard recruit training curriculum, meeting national standards, on nights and weekends to accommodate the schedule of firefighters in suburban and rural areas. Graduates complete 320 hours of training. Bringing the training closer to the firefighters often means more firefighters can participate. The program uses an online format that has students doing more work outside of class and taking quizzes online. This allows students more time to practice training skills with instructors and to better control their own workloads and time commitments. Upon successful completion of this program, all students have met the standards of National Fire Protection Association 1001.

Class #62

On March 1, 2017, in Stow, Massachusetts, members of Class #62 of the Call/Volunteer Recruit Firefighter Training program graduated, having completed 240 hours of training on nights and weekends. The 28 graduates, 25 men and three women, represent the 21 fire departments of: Ashby, Auburn, Berlin, Boylston, Charlton, Douglas, Dudley, Harvard, Holden, Mendon, Millbury, Monson, New Braintree, Paxton, Princeton, Spencer, Sturbridge, Sutton, Templeton, Uxbridge, and West Boylston.

Class #63

On March 6, 2017, in Groveland, Massachusetts, members of Class #63 of the Call/Volunteer Recruit Firefighter Training program graduated, having completed 240 hours of training on nights and weekends. The 38 graduates, 30 men and eight women, represent the 15 fire departments of: Boxford, Georgetown, Groveland, Ipswich, Lynnfield, Manchester, Merrimac, Middleton, Nahant, Newbury, Newburyport, Rowley, Tyngsborough, Wenham, and West Newbury.

Today's Firefighters Do Far More than Fight Fires

Today's firefighters do far more than fight fires. They are the first ones called to respond to chemical and environmental emergencies, ranging from the suspected presence of carbon monoxide to a gas leak. They may be called to rescue a child who has fallen through the ice or who has locked himself in a bathroom. They



Class #63



rescue people from stalled elevators and those who are trapped in vehicle crashes. They test and maintain their equipment including self-contained breathing apparatus (SCBA), hydrants, hoses, power tools, and apparatus.

At the Massachusetts Firefighting Academy they learn all these skills and more from certified fire instructors who are also experienced firefighters. Students learn all the basic skills they need to respond to fires and to contain and control them.

Students receive classroom training in all basic firefighting skills.

They practice first under non-fire conditions and then during controlled fire conditions. To graduate, students must demonstrate proficiency in life safety, search and rescue, ladder operations, water supply, pump operation, and fire attack.



Department of Fire Services
Commonwealth of Massachusetts
978-567-3100

www.mass.gov/dfs



New Boiler and Pressure Vessel Program

As part of Governor Baker's reorganization of state government, the former Department of Public Safety Boiler and Pressure Vessel Program has moved to the Department of Fire Services (DFS). The program will operate out of the Division of Fire Safety and we welcome these former Department of Public Safety employees. The program is headed by Chief Inspector Ed Kawa, and includes two program coordinators, one inspections supervisor and eight district inspectors. The district inspectors are housed in regional offices around the state, but the remaining staff is now housed at the Department of Fire Services Stow campus.

The Boiler and Pressure Vessel Program oversees the inspection of commercial boilers and pressure vessels, licenses boiler (firemen and engineers) and power plant operators, pressure vessel inspectors and oil burner technicians. The Board of Boilers Rules has also transferred to DFS.

Boiler and Pressure Vessel Program Staff

Ed Kawa	Chief Inspector	(978) 567-3781
Holly Bartlett	Program Coordinator	(978) 567-3780
Maria Pereira	Program Coordinator	(978) 567-3780

For questions on licenses for oil burner technicians, boiler operators (firemen and engineers), power plant operators, and pressure vessel inspectors, call (978) 567-3880.