

All Hands Herald

Massachusetts Department of Fire Services

January 2015

New Fire Safety Code Transition, Training and More



E-Cigarettes Cause Fires

25th Annual Firefighter of the
Year Awards

Responding to Bomb
Threats in Schools

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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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Photos by Julie Weinstein and other DFS staff
Cover photo by Julie Weinstein

From the Fire Marshal

A new year means new beginnings and DFS is no exception. DFS welcomes Governor Charlie Baker, Lt. Governor Karyn Polito, and the new Secretary of Public Safety and looks forward to working with the Administration on issues of fire safety and firefighter training. Staff changes inside DFS include: Massachusetts State Police Captain Jeanne Stewart and Lieutenant Kevin McMahon have retired. Lieutenant Paul Zipper has returned to take command of the Fire and Explosion Investigation Section and Lt. Brian O'Riordon joined the unit. Timothee Rodrique, former director of the Division of Fire Safety has left for the private sector. Paul Vigneau joins us from the City of Worcester's Department of Inspectional Services as the new director of the Division of Fire Safety, and George Kramlinger, retired from the U.S. Air Force, joins us from the Dover, NH Fire Department as the new director of the Mass. Firefighting Academy. We wish Jeanne Stewart, Kevin McMahon and Tim Rodrique well. We welcome Paul Vigneau and Brian O'Riordon to DFS and Paul Zipper back.

New Massachusetts Fire Code

One big change for the Massachusetts fire service in 2015 is the newly revised Fire Safety Code. Based on NFPA 1, the new code took effect on January 1, 2015. This adoption brings a code that is adaptable to new technologies and emerging trends, with easy maintenance going forward. It taps into the depth and the expertise of the National Fire Protection Association's voluntary code development process. One example is the stronger, more comprehensive chemical process safety provisions in NFPA 1 than were adopted by the Board of Fire Prevention Regulations in the wake of incidents including the 2006 Danvers chemical plant explosion. The adoption of the model code with Massachusetts amendments preserves key provisions of the current code that reflect the experiences and needs of the Commonwealth. One example is the testing required for appropriate levels of odorant in propane that arrives in the state by rail.

For citizens of Massachusetts, hold open clips that will start to appear at self-service gas stations will be the most noticeable change resulting from the new code. Gas station attendants are still required to halt unattended fueling, so while the clips are a convenience, it does not mean that the fueling process can be left unattended. This is not a significant code change, simply a publicly visible one.

DFS has conducted training for both fire code enforcement officials and the regulated community in the new code this fall. DFS has also updated the fire prevention forms and the ticketing book with new citations referencing

the new code. Fire officials should rely heavily on the code compliance staff in the Division of Fire Safety as they learn to navigate and enforce the new code.

School Bomb Threat Response

In the fall of 2014, Massachusetts experienced an unusually high number of school bomb threats. The volume was typical of exam or good weather days at the end of the school year. The State Police Bomb Squad responded to many of the incidents and noticed a wide range of local training and preparedness for bomb threat assessment. DFS convened a working group of school, fire, and state, local and federal law enforcement personnel who used national guidelines to develop a pamphlet for local school, fire, and police, *Bomb Threat Response Guidelines*. The goal of the pamphlet is to help communities to develop a more uniform approach to bomb threats while maintaining the flexibility necessary to address each unique incident.

9th Edition of the Building Code Underway

Fire officials should be aware that the state Board of Building Regulations and Standards is developing the 9th edition of the Massachusetts State Building Code. Please pay close attention to proposals of changes in required fire protection.

Springfield Campus

The construction of the Department of Fire Services Springfield Campus is coming along rapidly. Check our Facebook page to see photos of the work in progress (no account necessary to see it). The walls are up and we are on track to open the facility next summer.

High Level Infectious Diseases Guidance

In response to Ebola concerns, DFS, in collaboration with the Mass. Emergency Management Agency (MEMA), the Mass. Department of Public Health (MDPH), the Boston Fire Department and others, developed a presentation that provides public safety agencies direction on donning and



Continued on page 3

New Comprehensive Fire Safety Code

Transition, Training and Advisories

The new Massachusetts Comprehensive Fire Safety Code (527 CMR 1.00), based on NFPA 1, took effect on January 1, 2015. The adoption of this model code sets the stage for a code that is adaptable to new technologies and emerging trends, while also being easily maintained going forward. It taps into the depth and expertise of the National Fire Protection Association's voluntary code development process. Massachusetts joins nearly 20 other states that use this model code as the backbone of their fire code.

The Board of Fire Prevention Regulations is a 16-member board responsible for promulgating a comprehensive fire safety code (527 CMR) for the Commonwealth. The board was created to write the first statewide, uniform fire code in the wake of the Nov. 28, 1942 Cocoanut Grove nightclub fire in Boston that killed 492 people. Since the 1940's, this Governor-appointed board has written, revised, and administered the state's fire code.

Transition to the New Code

Training is key to a successful transition to the new code for both code enforcement officials and the regulated community. DFS held many initial training seminars with the National Fire Protection Association throughout the state for code enforcement officials. More initial training seminars will be offered this year. In December, we also held training for industry and the regulated community. These initial trainings taught how to use the new code. In the future DFS will offer training on specific aspects of the new code.

DFS has also posted documents on the website to help fire officials make the transition to the new code. New forms with the new citations have been posted (Fire Prev. Forms) and the ticketing book has been updated for those communities that use the non-criminal ticketing process. Our legal office is preparing advisories for fire officials on key changes to be aware of. The advisories are sent out through the monthly DFS Briefs and are posted on the DFS website under DFS Advisories. Other DFS resources that include code citations are also in the process of being updated.

Advisory Dec. 31, 2014

Copy of NFPA-1 for Code Officials (pdf)

Many fire departments may already have the NFPA full subscription service that provides access to the universe of NFPA codes and standards. However, the NFPA is also offering the Massachusetts fire service the *National Fire Codes 2013 Archive PDF* CD which includes the 2012 edition of NFPA-1 and corresponding NFPA referenced standards at a reduced cost. If your department is interested, fill out the form attached to the online version of this advisory.

Advisory Dec. 1, 2014

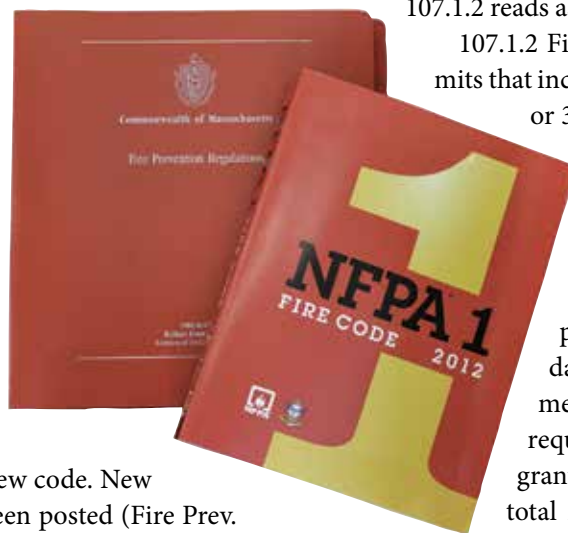
Fire Protection Permits as of January 1, 2015

The new Fire Safety Code has raised questions about permitting the installation of fire protection systems.

The revised fire code will have limited permitting requirements with respect to the installation of fire protection systems. These former permitting requirements were not carried forward since the Massachusetts State Building Code (MSBC) currently requires fire department review and approval under 780 CMR 107.1.2. The text of 780 CMR 107.1.2 reads as follows:

107.1.2 Fire Department Review. For permits that include work under Chapters 4 or 9, or 34, construction documents shall be filed simultaneously with the head of the local fire department and building official for review and approval. The fire department shall complete its review within 10-working days after receiving the documents. Upon the fire department's request, the building official may grant one or more extensions up to a total review period maximum of 30-days. If the fire department review is not received within the allowed time

frame the building official may upon review deem the documents in compliance with Chapters 4 or 9, or 34. If the head of the local fire department disapproves such construction documents, he or she shall notify the building official (refer to M.G.L. c. 148, s. 28A) in writing citing



Continued on next page

Working with the Media, a Success Story

This fall the Falmouth Fire Department worked with local media to educate residents of the upper Cape about the importance of smoke alarms after a cooking columnist wrote an article in the *Falmouth Enterprise* that suggested cooks, “turn off the smoke alarm” multiple times. While many people may have understood that the statements were in jest, not everyone would have understood that.

The Falmouth Fire Department contacted the newspaper editor and shared the reasons why instructing cooks to disable smoke alarms is no laughing matter. The Department shared information about the importance of smoke alarms, the fact that cooking is the number 1 cause of home

fires, and that Thanksgiving is the number 1 day for fires in Massachusetts (Thanksgiving was a few weeks away).

The result of the outreach was a terrific editorial in the *Falmouth Enterprise* advocating for working smoke alarms. The editorial educated the public about the importance of working smoke alarms. (See the editorial on page 4 at <http://bloximages.chicago2.vip.townnews.com/cape-news.net/content/tncms/assets/v3/editorial/4/40/44078a14-7187-11e4-8eae-5777e1d174a8/546f477599ea1.pdf.pdf>).

Congratulations to the Falmouth Fire Department for a job well done.

From the Fire Marshal *continued from page 1*

doffing personal protective equipment (PPE) for high level infectious diseases. The presentation was developed in response to requests for guidance and is not intended to be a mandate. The presentation will be updated based on further recommendations from the U.S. Centers for Disease Control (CDC) or the MDPH. It includes the CDC recommended N-95 respiratory protection level and the optional full face respirator for protection. Visit www.mass.gov/dfs and click on *Hazardous Materials Division*.

S.A.F.E. and Senior SAFE Grants Awarded

I am very proud of the Student Awareness of Fire Education (S.A.F.E.) and the Senior SAFE program initiatives. Statistics show that S.A.F.E. has reduced child fire deaths dramatically in Massachusetts. We have raised two generations of fire safe children since the program began twenty years ago. We hope to have the same impact on senior fire deaths, as older adults now account for 43% of the fire deaths in Massachusetts. I applaud the 221 fire departments

that have connected with schools and elder service agencies and applied for and received the S.A.F.E. and/or Senior SAFE grants in FY '15.

Media Campaigns for Education

DFS is supporting local fire education efforts with a statewide media campaign of television and radio public service announcements (PSAs). A cooking safety PSA with celebrity chef Ming Tsai started to air December 1 and continued through the holiday cooking season. In January and February we will air a *Keep Warm, Keep Safe* PSA that was produced last year. During late December and early January both spots will run. We will also air Spanish language versions of the radio spots. In addition, bi-lingual (Spanish and English) transit ads for the *Keep Warm, Keep Safe* campaign are posted throughout the state. DFS is grateful to the many transit companies that have donated the space to support public safety.

New Comprehensive Fire Safety Code *continued from previous page*

relevant sections of noncompliance with this code or the section of the referenced standards of Chapter 35.

The revised fire code will still require permitting for the impairment and/or shutdown of any fire protection or carbon monoxide equipment and for fire protection systems required under 527 CMR 1.00, which codifies M.G.L. c. 148, s. 27A.

The elimination of the permit was based on the assumption that the fire official has reviewed and approved the project through the MSBC. If a Certificate of Occupancy was issued and the building did not comply with the provisions outlined in the MSBC, the possibility exists that there could be 527 CMR 1.00 fire code violations as of the

day after the Certificate of Occupancy was granted. Therefore, please continue efforts to ensure review and approval under the MSBC.

The fire department review and approval (under 780 CMR 107.1.2) is for any work involving 780 CMR Chapter: 4 (Special Detailed Requirements Based on Use and Occupancy), Chapter 9 (Fire Protection Systems) and/or Chapter 34 (Existing Structures) of the MSBC. There is no work in a new building that will not require this fire department review and approval. Even the construction of small buildings that do not require a fire alarm or sprinkler system still need fire department review and approval under 780 CMR.

E-Cigarettes *Can Cause Fires*

by Jim DeSimone, Department of Fire Services, FSC Cigarette Program Coordinator

E-cigarettes are battery-powered devices that simulate tobacco smoking by vaporizing a liquid solution, which resembles smoke. Available for sale in the U.S. since 2007, e-cigarette use has been growing rapidly. It is estimated that there are more than 2.5 million e-cigarette smokers in America. There are currently nearly 500 e-cigarette brands with over 7,000 unique flavor choices. All indications point to continued growth in this industry.¹

A recent investigation conducted by the Massachusetts State Fire Marshal's office found that a fire at Logan Airport was caused by an electronic cigarette (e-cigarette). On August 9, 2014, Massport Fire and Rescue and the Massachusetts State Police responded to a fire in a piece of luggage that had been loaded onto, and then subsequently removed from, an airplane departing for New York. Examination by fire investigators revealed a burn pattern on the luggage indicating the point of origin of the fire was inside an exterior pocket. It was determined that the e-cigarette found in the exterior pocket contained a battery operated atomizer which if triggered, heats up to a minimum of 212 degrees Fahrenheit and therefore caused the fire.

Concerned that these heat-generating devices could be turned on inadvertently during normal luggage handling, State Fire Marshal Coan sent a letter (in October,

2014) to the U.S. Department of Transportation's Federal Aviation Administration (FAA). The Marshal asked the FAA to conduct further investigation into the safety issues raised by the presence of e-cigarettes on passenger planes. He reminded them that if this fire had started in the cargo luggage area and was left undetected while the plane was in flight, a major tragedy with dire and deadly consequences could have occurred. In November 2014, the Hazardous Material Safety Division of the FAA responded to the State Fire Marshal stating that they share the same safety concerns about e-cigarettes on commercial aircraft and therefore, an official investigation has been initiated to examine the options in preventing such incidents in the future. Additionally, the FAA, in coordination with the Pipeline and Hazardous Materials Safety Administration (PHMSA), has agreed to work to disseminate appropriate information to U.S. air carriers and the traveling public regarding the dangers of these devices.

It is against FAA regulations to transport certain battery-powered devices with the batteries installed, inside checked luggage for this reason. It is possible that the owner of the e-cigarette may face action by the FAA.

This is not the first report of a fire caused by an e-cigarette. Twenty-five fires involving e-cigarettes have been reported in the U.S. media since 2009.¹ The majority of the fires occurred while the battery was charging. The fires were reported as similar to explosions, in that the battery of the device was ejected under pressure, which ignited nearby objects such as bedding and couches. In most cases, users were not using the power sources provided by the e-cigarette manufacturer. As a result, the batteries were being subjected to higher unsafe voltage and currents which led to the explosions/fires.

The U.S. Food and Drug Administration (FDA) recently proposed regulations for e-cigarettes, however they are only addressing the health effects of the vapors and not the batteries or electronics of the devices. Unfortunately, the U.S. Consumer Product Safety Commission has advised that e-cigarettes do not fall under their jurisdiction. As a result, there are no regulations, codes, or laws applying to the electronics or batteries in e-cigarettes at this time.

¹ http://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf



Responding to School Bomb Threats

In the fall of 2014, Massachusetts experienced an unusually high number of school bomb threats. The volume was typical of exam or good weather days usually seen at the end of the school year. The State Police Bomb Squad responded to many of the incidents and noticed a wide range of local training and preparedness for bomb threat assessment. DFS convened a working group of school, fire, and state, local and federal law enforcement personnel who used national guidelines to develop a pamphlet for local school, fire and police on *Bomb Threat Response Guidelines*. The goal of the pamphlet is to help communities to develop a more uniform approach to bomb threats while maintaining the flexibility necessary to address each unique incident.

DFS coordinated a series of bomb threat assessment seminars throughout the state to help communities learn more about threat assessment, which is a critical first step in determining an appropriate response to any threat. Members of the State Police Bomb Squad delivered these trainings with help from the North Eastern Massachusetts Law Enforcement Council's (NEMLEC) School Threat Assessment and Response Team (STARS). The *Bomb Threat Response Guidelines* document will not be posted on the web for obvious reasons. For your copy of the document, contact the Fire Data and Public Education Unit at (978) 567-3380 or David.DeMarco@state.ma.us or the Public Information Office at (978) 567-3189.

All Hazard Plans

Every school is required to have an All Hazards Plan that is reviewed jointly by police, fire and school officials at the beginning of each school year. A bomb threat response plan should be part of the All Hazards Plan. The Department of Elementary and Secondary Education has received a grant to provide training to school officials across the Commonwealth in developing and strengthening All Hazards Plans. The training emphasizes the incident command system (ICS) that will help all three professions to work cohesively during school emergencies.

December 2, 2014

Hoax Bomb Clock Advisory

On November 4, 2014, the Danvers Police and Fire Departments, the Massachusetts State Police Bomb Squad and the FBI Bomb Squad responded to a bomb threat call at a Comfort Inn in Danvers, Massachusetts.

The Comfort Inn manager sounded the fire alarm to evacuate hotel guests after housekeeping discovered an explosive device consisting of six to eight sticks of dynamite taped together with a digital clock attached. The State Police and FBI Bomb Squads were preparing to enter the room and defuse the threat when the room's occupant was located. He informed officials that the device was a hoax, known as a "defusable clock" that he bought on the internet.

The Office of the State Fire Marshal drafted and the Governor signed into law, Chapter 266, s. 102A½, the hoax device law effective January 12, 2001. The law criminalizes the possession, use, transport or placement of any hoax device, with the intent to cause anxiety, unrest, fear or personal discomfort to any person or group. The punishment for violations is 2½ to 5 years imprisonment and/or a fine of up to \$5,000 or both. Unfortunately, these devices are not illegal per se, rather, it is the intent of how they are placed to incite fear that is punishable by law.

At this time, it does not appear that the individual who owned this clock intended to cause fear or unrest. However, be aware that these hoax device alarm clocks are widely available and can be configured in numerous ways. You can see photos of configured hoax devices at: <http://www.nootropicdesign.com/defusableclock/index.html>.

Treat all devices as potentially lethal. If you come across such a device, contact the Massachusetts State Police Bomb Squad immediately at (978) 567-3310 or at (508) 820-2121 (24-hour emergency number). For other questions about this memorandum, contact Lt. Paul Zipper, Massachusetts State Police, Fire & Explosion Investigation Section, at (978) 567-3310.

Massachusetts Bomb Threat Response Guidance

For local police, fire and school officials.

- Although no bomb has ever been found in a Massachusetts school after a communicated threat, take each threat seriously.
- Every school should have a **Bomb Threat Response Plan** as part of an All Hazard Plan.
- Use these guidelines to review and revise the bomb threat response section of your All Hazard Plan.
- Every bomb threat is unique and should be handled in accordance with the needs of the facility.



This information has been approved by:
Fire Chiefs' Association of Massachusetts
Massachusetts Police Chief's Association
Massachusetts Major City Chiefs
Mass. Association of School Superintendents

MASS. STATE POLICE BOMB SQUAD
DEPARTMENT OF FIRE SERVICES
Stephen D. Coan • State Fire Marshal

Hoax Bomb Clock



Training Collaboration

Prepares New Canine Team



On November 25, the Connecticut State Police certified new A-K9 teams under the New England State Police Administrator Conference (NESPAC) standards, among them Boston Fire Lt. Thomas Murray and canine Keegan. They will be the Boston Fire Department's only accelerant detection team after training under

the direction of the Department of Fire Services' Fire & Explosion Investigation Unit (FE&IU) and the Connecticut State Police.

The Boston Fire Department's Fire Investigation Unit (FIU) and the DFS FE&IU have a close and productive collaborative relationship. The DFS FE&IU has been responding to Boston fires providing A-K9 services for many years. Earlier in 2014, Boston Fire approached DFS to help them acquire their own accelerant detection canine. The Connecticut State Police donated Keegan, a Golden Labrador who was initially trained for Guiding Eyes for the Blind, to the Boston Fire Department. After three weeks of initial training in Connecticut Keegan came to Massachusetts.

Under the direction of State Police Sgt. Paul Horgan and Sgt. Stephen Cunningham, both of the Department of Fire Services' Fire and Explosion Investigation Unit, Boston Fire Lt. Murray and Keegan trained for accelerant detection certification. Over the course of eight weeks, Keegan and Lt. Murray traveled across the state to work with Sgts. Horgan and Cunningham. Sgt. Horgan is the K-9 Coordinator for DFS and was, himself, trained by the Connecticut State Police. Sgt. Horgan said, "Training a dog for accelerant detection involves teaching them to recognize more than 20 accelerant odors, to seek the scent, and to alert their handler by sitting down." Horgan added, "Dogs are trained in all kinds of searches including those of buildings, vehicles, people and clothing in both burned and unburned environments."

Accelerant detection canines work and train constantly. They eat only as a reward for seeking and alerting and so maintain their specialized training through constant repetition. These canines work from about age 1 until

they are 9 or 10 years old, depending on their health. They typically live their entire working and retirement lives with their handler and the handler's family.

Sgts. Horgan and Cunningham of the DFS FE&IU trained Keegan and Lt. Murray during regular work hours and combined with the donation of the dog from the Connecticut State Police, the Boston Fire Department has obtained this certified dog for the cost of maintaining the dog. Keegan and Lt. Murray expect to share a long and productive working life. The Connecticut State Police and the Department of Fire Services' Fire & Explosion Investigation Unit have been crucial in providing this trained team to the Boston Fire Department.

The state Fire and Explosion Investigation Unit has six nationally certified accelerant detection canine teams (handlers and dogs) and seven nationally certified explosive detection canine teams (handlers and dogs). The unit has had accelerant detection canines since 1987.

Boston Fire FIU and the DFS FE&IU have a close and productive collaborative relationship. DFS has been providing A-K9 services to Boston for many years.



Sergeant Stephen Cunningham, Lieutenant Thomas Murray, Keegan, and Sergeant Paul Horgan.

25th Annual Firefighter of the Year Awards



Kennedy Presidential Library



Tewksbury Firefighters

On October 28, Governor Deval Patrick joined Public Safety Secretary Andrea Cabral and State Fire Marshal Stephen D. Coan to honor firefighters from ten Massachusetts communities for heroic acts of bravery during the 25th annual *Firefighter of the Year Award* ceremony at the John F. Kennedy Library and Museum in Boston.

"Today we honor amazing acts of courage and bravery by the Commonwealth's firefighters and take a moment to thank these heroes and their families," said Governor Patrick. "Firefighters show a greatness of spirit and community in choosing to protect others as a profession while putting themselves in danger." "Every year, we honor the bravery and sacrifice of the entire fire service through these awards," said Secretary Cabral. "This year's recipients are extraordinary examples of those qualities."

Governor Patrick and Secretary Cabral presented 22 awards: two Norman Knight Awards for Excellence in Community Service to the Amherst Regional Student Awareness of Fire Education (S.A.F.E.) Program and to a Lunenburg firefighter for his Senior SAFE Program; an Excellence in Leadership Award to a Boston Deputy Fire Chief for a career devoted to improving fire prevention; ten Individual Awards for Meritorious Conduct to firefighters from Abington, Chelsea, Everett, Lunenburg and New Bedford; two Group Awards for Meritorious Conduct to teams of firefighters from Boston and Tewksbury; five Medals of Valor to individual firefighters from Billerica, Lynn and New Bedford; and two Medals of Honor presented posthumously to the families of Boston Fire Lt. Edward J. Walsh Jr. and Boston Firefighter Michael R. Kennedy.

Past Medal of Honor recipients and their survivors received special recognition from Fire Marshal Coan during this milestone ceremony for their service and sacrifice. It is 25 years since the very first *Firefighter of the Year Award* ceremony began honoring some of Massachusetts' heroic public servants.

"It has been an honor and a privilege for me to be part of this event for the past 24 years. It is an opportunity to remind our firefighters and their families of the special nature of the calling to protect others, and that a hero is someone who does the right thing at the right time in the right place," said State Fire Marshal Coan. He also thanked Governor Patrick who was presiding over his eighth and final *Firefighter of the Year Award* ceremony for his unwavering support of the Massachusetts fire service during floods, tornados, significant fires and firefighter funerals.



Walsh Family Accepts Medal of Honor



Everett Firefighters



Amherst Regional S.A.F.E. Team

Public Awareness Campaigns

Cooking Safety and Keep Warm Keep Safe

The Department of Fire Services has developed two public awareness campaigns: *Cooking Fire Safety* and *Keep Warm Keep Safe* (KWKS) addressing several major causes of fires and fire deaths in Massachusetts. The campaigns include toolkits (available on our website) with resources for local fire departments to use in promoting accurate and consistent safety messages. The toolkits include information in multiple languages, logos, handouts, lesson plans and customizable press releases. They also include radio and television public service announcements. Encourage local media to run the PSAs or put them on your own website.

DFS Supports Local Education with Media Campaigns

DFS is supporting local fire education efforts with a state-wide media campaign of television and radio public service announcements (PSAs). A cooking safety PSA with celebrity chef Ming Tsai started to air December 1 and continued through the holiday cooking season. In January and February the *Keep Warm, Keep Safe* PSA produced last year will air. During late December and early January both spots will run. Spanish language versions of the radio spots will also air. In addition, bi-lingual (Spanish and English) transit ads for the *Keep Warm, Keep Safe* campaign are posted throughout the state. DFS is grateful to the many transit companies that have donated the space to support public safety.

Cooking Campaign

Cooking is the leading cause of residential fires, home fire injuries, and in 2013 it was the leading cause of residential fire deaths. Please join us in teaching citizens to, "Stand By Your Pan," to prevent cooking fires and to, "Put A Lid On It," if a fire occurs. Go to www.mass.gov/dfs and search on *Cooking Safety* for more information and resources.

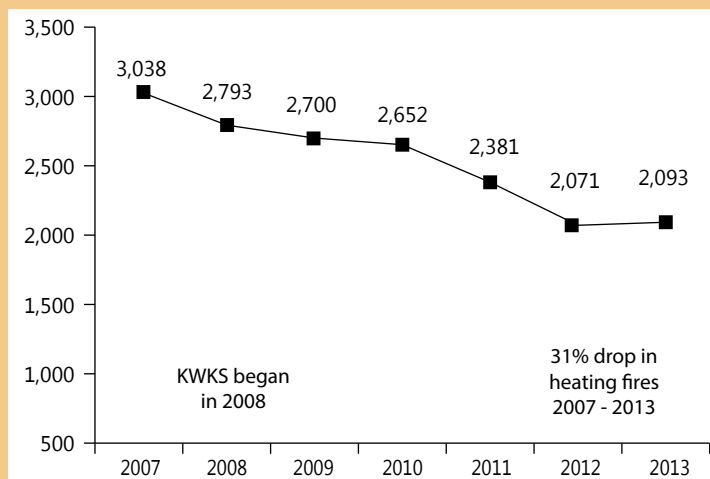
Keep Warm Keep Safe is Effective

The KWKS campaign began in 2008. Between 2007 and 2013, home heating equipment fires have dropped 31%, from 3,038 in 2007 to 2,093 in 2013. When the fire service speaks with a unified voice to local newspapers, television reporters, school children, civic clubs and senior citizens, we can have a major impact on safety. Although Massachusetts did not have many space heater fires before

Keep Warm Keep Safe, one space heater fire in seven caused a death. There has not been one fatal space heater fire since 2008, however they are still quite dangerous. One in every four space heater fires causes a civilian injury. Improper disposal of wood stove and fire place ashes still cause many fires. Public education about winter heating season fire safety can further improve safety in Massachusetts. You can find resources and information at www.mass.gov/keepwarmkeepsafe.



Home Heating Fires, 2007 - 2013



Sprinklers Critical to Fire Safety

in New Mixed-Use Residential Buildings

Fire sprinklers are required in new mixed-use buildings containing residential occupancies.

The importance of residential sprinklers cannot be understated. In mixed-use residential buildings, automatic fire sprinkler protection is crucial because business and retail areas of the building are typically unoccupied during sleeping hours for residents. A fire could grow undetected in the non-residential portion of a mixed-use building before smoke alarms are activated. The use of automatic sprinklers in these buildings gives residents time to escape while the sprinklers control the spread of the fire.

Recently, the Division of Fire Safety worked with several fire departments when local fire and building authorities discovered that the plans for a new mixed-use building containing a residential occupancy did not include the required sprinkler system, yet the construction was underway.

The Massachusetts State Building Code, 780 CMR, is based on the Massachusetts-amended 2009 edition of the International Building Code (IBC). The occupancies required to have sprinkler protection can be found in 780 CMR Section 903.2 and 780 CMR Table 903.2. Any new Use Group R occupancy is required to be sprinklered. Additionally, the title of the columns denoting the Building Aggregate Area, Building Occupant Load, and Occupancy Located indicates that a sprinkler system must be installed throughout any building where there is a Residential Occupancy. (Editor's note: One- and two-family homes are regulated by the separate Massachusetts Residential Code, not the base Building Code. They are not included in this technical definition of residential occupancy and are not required to be constructed with sprinklers unless the structure exceeds 14,400 square feet.) 780 CMR Table 903.2 Note a. requires that any mixed-use buildings containing R-uses shall be provided with a sprinkler system designed and installed throughout the structure in accordance with NFPA 13. 780 CMR references the 2013 edition of NFPA 13.

When plans for mixed-use residential buildings are submitted during the permit application process as required by 780 CMR 901.2.1, the building official must cause the plans to be submitted to the fire official for his or her review. 780 CMR Section 107.1.2 allows ten working days after receipt of the plans for the fire department to conduct their review (the review period can be extended to 30 days if requested in writing and approved by the building official). Although the full permit submission should be reviewed in detail, the most important documents to review are as follows:



1. **Fire Protection Narrative.** The fire protection narrative should include the design methodology for the protection of the building. This should include the occupancy of the building per 780 CMR and the hazard classification per NFPA 13 for each portion of the building (i.e. residential, light hazard, ordinary hazard, etc.). The sequence of operation of the fire alarm and fire sprinkler systems should be described. Also, the testing criteria for the systems should be noted.
2. **Fire Department Equipment and Access.** The location of the fire department connection, building and site access for the fire department vehicles and personnel, location of hydrants, and the location of the sprinkler system water supply should all be clearly shown on the plans. It is important to verify that the fire department connection specified on the plans will work with your department's equipment.
3. **Fire Protection Equipment Room Locations.** The location of the main fire alarm control panel, annunciator panel(s), and fire sprinkler room must be verified. If post indicating valves (PIV) are needed for sprinkler room valve control, the location of those PIVs should be identified.
4. **Fire Protection Systems.** A review of the types and locations of initiating devices (smoke detectors, water flow switches, etc.), notification devices

Continued on page 13

Winter Fire Safety

Safety Tips for Open Burning Season

Permits are required

Get a permit from the local fire warden or fire chief. Fire wardens determine when it is safe to conduct open burning on a daily basis. Weather conditions change rapidly, especially in the spring. Permits can be rescinded if conditions change suddenly, making it unsafe to burn.

According to Department of Environmental Protection regulation (310 CMR DEP 7.07), open burning must be a minimum of 75 feet from all buildings; be conducted between 10 a.m. and 4 p.m. from January 15 to May 1, and take place on the land closest to the source of material to be burned. You must also be sure air quality conditions are acceptable for burning by calling the Massachusetts DEP Air Quality Hotline at (617) 556-1021 or by visiting the MassAir Online website at <http://public.dep.state.ma.us/MassAir>.

Burning is allowed for the following materials, with a permit:

- Brush, cane, driftwood, and forestry debris from other than commercial or industrial land clearing



Hot Liquids Burn Like Fire

Scalds caused 83% of all burns to children under five.

Hot Beverages

- Put coffee down when you hold a baby. A wiggling baby can jiggle your arm and spill the drink all over himself.
- Put drinks and soups toward the center of the table away from curious fingers. Babies like to grab things.
- Consider replacing tablecloths with place mats to prevent children from pulling everything on the table onto themselves.
- Hot beverages caused almost one-quarter of the burns to children under age five.
- Eighty-five percent (83%) of people burned by hot beverages were under five.



Tap Water

- It takes only one second for water at 155°F to cause a third degree burn.
- Set your hot water heater to temperatures of 125°F or less. (Massachusetts law states that the temperature must be between 110°F and 130°F.)
- Always supervise young children in the bath and face them away from faucets. Babies and toddlers like playing with knobs and levers. They may turn on the hot water when you turn your back.



Cooking

- Turn pot handles inward.
- Establish and enforce a NO zone around the stove. Do not let children play near a stove or barbecue. This protects children from cooking liquids, grease and hot metal.
- Children under age five are 5 times more likely to be burned by cooking activities than others.
- Thirty-five percent (27%) of all cooking-related burns were suffered by children under five years old.



Statistics obtained from the 2013 Annual Report of the Massachusetts Burn Injury Reporting System.



FireFactors

Office of the State Fire Marshal • www.mass.gov/dfs • (978) 567-3380

Ice and Cold Water Safety



DEPARTMENT OF FIRE SERVICES
Stephen D. Coan • State Fire Marshal

Great resources are available for public education in your community.

Cómo Protegerse del Agua Fría y el Hielo



DEPARTMENT OF FIRE SERVICES
Stephen D. Coan • State Fire Marshal

National Burn Awareness Week
February 1 - 7, 2015

BURN SAFETY



The Department of Fire Services has many resources for winter fire safety education.

Keep Warm Keep Safe

The *Keep Warm Keep Safe* campaign includes information on space heater safety, chimney and wood stove safety, carbon monoxide safety, smoke alarms and home escape plans, and general heating safety. More information and resources can be found at www.mass.gov/keepwarmkeepsafe.

Ice Safety

In New England, ice and cold water safety is important. Each winter, too many residents are injured from cold water exposure and last year, fire departments rescued a large number of unleashed dogs who fell through ice. Many owners were also rescued after they tried to help their pets. DFS has a pamphlet (available in both English and Spanish) to help fire educators with this important winter topic. (<http://www.mass.gov/eopss/agencies/dfs/dfs2/osfm/pubed/fs-topics/fs-topics-a/ice-and-cold-water-safety.html>)

Burn Awareness Week

National Burn Awareness Week is February 1-7, 2015. The leading burn problem both nationally and in Massachusetts is hot liquid scalds to children under age 5. Many burn safety resources are available.

- The American Burn Association's Burn Prevention Committee has put together prevention resources (<http://www.ameriburn.org/preventionBurnAwareness.php>) on cooking safety for older adults, pediatric scalds and general scald prevention information.
- The U.S. Fire Administration has a customizable Focus On Fire Safety Burn Safety handout for download at (http://www.usfa.fema.gov/downloads/pdf/focus/feb_2013_burns.pdf).
- The Department of Fire Services has Massachusetts-specific educational handouts on the Burn Safety webpage (www.mass.gov/DFS, type "burn safety" in the search box or look on Quick Links.) The page also links to Massachusetts Burn Injury Reporting System (M-BIRS) annual reports for more data on burns in the Commonwealth.

Open Burning

Open burning season runs from January 15 through May 1 in communities where it is allowed. Fire educators can encourage residents to burn at the start of the season when conditions may be wetter, snowier and less likely to cause brush fires than conditions in late April. DFS has a *FireFactor* on Open Burning and safety tips on the website at www.mass.gov/dfs. Type *open burning* in the search box. The poet T.S. Eliot wrote, "April is the cruelest month," and DFS agrees because April is the month when Massachusetts has the most brush fires.

DFS Employees Recognized

for Performance and Service

Each year, a committee of DFS staff selects full-time employees from among nominees for recognition with Pride in Performance Awards. This year, the committee recognized several individual contributors and several teams of employees for distinguished dedication and commitment to the mission of the Department of Fire Services. Governor Patrick recognized the full-time employee award recipients at the State House on July 18, 2014. The Department of Fire Services recognized all recipients on October 15, 2014 at our Stow Campus.

The Stow event also recognized more than 70 full-time and contract employees who reached milestone years of service with the agency as of June 30, 2014. Each employee was awarded a certificate and pin for their continued commitment to the agency. Most notably, contract employee, John O'Donoghue was honored for 35 years of service.

Pride in Performance Recipients

Casey Jensen, program coordinator, was recognized for her work orchestrating staff and contractors in the Hazardous Materials Response Division of the DFS. This complex and highly technical organization must be ready to respond at any time to emergencies ranging from small household mishaps to incidents with national security implications. Casey quietly and consistently manages all the details necessary to maintain this readiness. The importance of the work cannot be overstated because members of the six hazmat teams risk their lives, depending on the equipment that is purchased and maintained under Casey's direction. The Commonwealth also relies on Casey's record keeping to assure that each hazmat employee meets all of the training and medical requirements that qualify them to respond to incidents.

The Comprehensive Fire Code Committee (Richard Fredette, Timothee Rodrique, Steven Rourke and Peter Senopolous) was recognized for coordinating a complete revision of the Commonwealth's Fire Code that took effect on January 1, 2015. Over several months the committee provided technical and administrative support to the Board of Fire Prevention Regulations and six sub-committees responsible for review, amendment, and clarification of a code and associated reference documents resulting in a completely new document based on a model code. The committee demonstrated true personal and professional commitment to public service.



Contract employee, John O'Donoghue (center) marked 35 years of service with Deputy State Fire Marshal Peter Ostroskey (left) and State Fire Marshal Stephen Coan (right).

Employees were recognized for distinguished dedication and commitment to the DFS mission.

The Career Recruit Program at the Massachusetts Firefighting Academy has always had a very long wait list. The Recruit Firefighter Training Team (Richard Farrar, Bruce Gauvin, Michele Hebert, Christine Juda, James Hagerty, Brian Whitney, Rick Goddard, Jack Gelinas, Bob Foley and Ray Spellman) was recognized for redesigning the program format to allow more students through without any negative effects on program quality. The Career Recruit Program went from a 12-week program with 72 students, to a 9-week program with 24 students, running three classes simultaneously. The change required adjustments to lectures, format, equipment, and staffing all without harming the integrity or quality of training the students receive. The training team accomplished the change with impressive professionalism.

David Curran is a contract employee with the Hazardous Materials Response Division. He was recognized for his tireless efforts to secure funding for the replacement of the aging Hazmat fleet. For the last several years, David created an RFR and detailed specifications, but funding for new vehicles did not materialize. Finally, last year, funding was secured. Dave's level of excellence in performing this task repeatedly until the funding was secure ensures that the division will have new, safer, and more efficient vehicles for emergency response needs.

20th Annual Public Fire & Life Safety Education Conference

Public fire education in Massachusetts reached a major milestone when the 20th annual Massachusetts Public Fire and Life Safety Education Conference was held in September. This year's theme *Destination SAFE: Fire & Life Safety for All Ages* recognized the importance of teaching both children and seniors how to be safe from fire. Over 200 firefighter-educators, classroom teachers, elder service workers and injury prevention professionals gathered for workshops on teaching fire and life safety and injury prevention to all ages, from pre-schoolers to senior citizens.

Elder Affairs Secretary Ann Hartstein addressed the conference, discussing the partnership between fire departments and councils on aging through the new Senior SAFE Program. Leslie Gaydos, news anchor and reporter with New England Cable News (NECN), delivered the keynote

address. She spoke about her work on the documentary *The Forgotten Fire* and the impact that the work had on both the community, and on her personally. Jim Crawford, project manager for Vision 20/20 (strategicfire.org), presented on a recent report that analyzed the status of working smoke alarms in U.S. homes. The report documented that two-thirds of fire deaths occur where smoke alarms are not present or not working. He addressed strategies fire educators can use to address this problem.



Fire & Life Safety Educator of the Year Award winner, Worcester Inspector Jeff Spring (right) with Worcester Fire Chief Gerard A. Dio (left).



Fire & Life Safety Educator of the Year Award nominees (left to right): FF/EMT-P Jason Dorval, FF Laurie Rocco, Insp. Jeff Spring, Lt. David Evans and Lt. Christopher Dano.

2014 Fire & Life Safety Educator of the Year Award

The 2014 *Fire & Life Safety Educator of the Year Award* was presented to Worcester Inspector Jeff Spring. The other nominees recognized for their efforts were Lt. Christopher Dano, Southborough Fire Department; FF/EMT-P Jason Dorval, Whately Fire Department; Lt. David Evans, Assistant Principal, Pentucket Regional High School and West Newbury Fire Department; and FF Laurie Rocco, Palmer Fire Department. Congratulations to the winners and nominees and to all those who work so hard to educate Massachusetts citizens in fire and life safety.

Changes in Homeowner Liability for Unintentional Hazardous Releases

Recently enacted legislation on Hazardous Materials Response (Chapter 391 of the Acts of 2014) amends the existing hazardous materials law (M.G.L. c. 21K) to create an exception from liability for the average person who has an unintentional release of hazardous materials in their home, such as a broken mercury thermometer or mix-up of pool chemicals.

This *good faith* or *innocent homeowner* exception to the law removes the deterrent for a homeowner to contact the local fire department in the event of a hazardous materials release. Prior to this, the Department of Fire Services was mandated to bill responsible parties for a hazmat team response.

Fire Investigation News

Swampscott Young Hero Saves Family

On December 2, 2014, the unthinkable happened to a Swampscott firefighter — a fire occurred in his own home. “The Swampscott family’s experience teaches how important working smoke alarms and a practiced home escape plan are,” said State Fire Marshal Coan. Swampscott Fire Chief Kevin Breen said, “Everyone should be prepared for fire. This was the home of one of our firefighters and he told me they escaped with seconds to spare before fire would have made it impossible to get out either door.”

The Swampscott parents credit their 6-year old daughter with reacting to the earliest signs of danger and knowing they needed to use their home escape plan. She had received instruction in school as part of the Swampscott Fire Department’s S.A.F.E. Program. Her parents had reinforced those lessons by making sure there were working smoke alarms in the house, and by developing a home escape plan and teaching it to the whole family. The 6-year old will be honored with a Young Hero Award from the Student Awareness of Fire Education (S.A.F.E.) Program in January.

The early morning fire on Humphrey Street was jointly investigated by the Swampscott Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal. Due to the destruction in the area of origin, the attached garage, the fire cause is undetermined but is considered accidental.

Man Arrested for Amherst Arson

Mark Anthony Andre, age 54, was arrested in early December for setting fire to 222 Belchertown Road in Amherst on November 29, 2014. He was charged with one count of burning a dwelling. Mr. Andre was a resident of 222 Belchertown Road, which provides shelter

to homeless people with active substance abuse issues. The fire was jointly investigated by the Amherst Fire Department, Amherst Police Department and State Police assigned to the Office of the State Fire Marshal. Police searched for Mr. Andre for an entire week when he was finally located in Greenfield. The West Fire Investigation Team credits the Amherst Police Department for their persistent efforts to locate Mr. Andre.

Elderly Woman Dies in Winchester Assisted Living Facility

On December 3, 2014, a 65-year old woman died from a small fire at a Winchester assisted living facility. Hallway smoke alarms alerted building officials to the fire in the woman’s apartment. Her clothing had ignited causing serious burns, but little fire in the apartment itself. She may have been using the stove when her clothing ignited. The smoke alarm in the woman’s apartment had been disabled, possibly by the woman herself. The Winchester Fire Department will be working with facility management to ensure that smoke alarms in every apartment are functioning properly, and to train staff to observe and report disabled smoke alarms in the future.

Smoking Caused Fatal Waltham Fire

On December 9, 2014, a fatal fire at 48 Albemarle Road in Waltham was started by the improper disposal of smoking materials. The fire took the life of a 53-year old man who was the sole occupant of the single family home. The fire started near, or on, the living room couch. The victim was known to be a heavy smoker. The fire was jointly investigated by the Waltham Fire Department, Waltham Police Department, State Police assigned to the Office of the State Fire Marshal and State Police assigned to the Office of the Middlesex District Attorney.

Sprinklers Critical to Fire Safety, *continued from page 9*

(horn/strobes, exterior water motor gong/beacon, etc.), and sprinkler system (sprinkler heads, zone control assemblies, standpipes and fire department connections, etc.) should be conducted. If the project is required to be under construction control (i.e. the building is 35,000 cubic feet or more), the plans must be stamped and signed by a registered design professional in accordance with 780 CMR 107.6.1. Although the registered design professional has

signed and stamped the plans, a thorough review by the fire department is essential.

For more information, contact the fire protection specialists in the Division of Fire Safety. For jurisdictions south of, or containing the Massachusetts Turnpike, contact Jake Nunnemacher at 978-567-3377 or jacob.nunnemacher@state.ma.us. For jurisdictions north of the Turnpike, contact Jen Hoyt at 978-567-3376 or jennifer.hoyt@state.ma.us.

Fire Marshal Advisories

State Fire Marshal Stephen D. Coan has sent recent advisories to local fire chiefs in order to spread awareness of code changes and interpretations and issues affecting code enforcement. Advisories are posted on the DFS website (www.mass.gov/dfs) under *DFS Advisories* and as part of the monthly *DFS Briefs*. For questions or assistance, contact the Code Compliance and Enforcement Unit at (978) 567-3375, or in western Massachusetts at (413) 587-3181.

December 1, 2014

Legislation Concerning Blasting

Recently, the Massachusetts Legislature enacted a natural gas pipeline safety law, Chapter 149 of the Acts of 2014, "An Act Relative to Natural Gas Leak."

One of the many sections the Act impacts is quarry blasting, specifically section 7 of this Act, which contains provisions relative to quarry blasting within 500 feet of a natural gas pipeline or facility. Such blasting now requires permission from the Department of Public Utilities.

"SECTION 7. Notwithstanding any general or special law to the contrary, explosive material, as defined in 527 CMR 13.03, shall not be used to fire a blast in any blasting operation at a site primarily used as a source of mined products from the earth if such site is within 500 feet of a natural gas pipeline or metering and regulation station without written approval by the department of public utilities." (This is similar to the Dig Safe requirements.)

Although the Act does not create new requirements for you as the permit granting authority, I wanted to make sure that you were aware of the change, so that you may ask to see this approval or require it as a condition of the permit (527 CMR 13.04(11)(d)).

October 20, 2014

UPDATED INFORMATION: New and Renewed Liquor License Inspections And Ongoing Review of M.G.L. c. 148, s. 26G½

Liquor License Inspections

Recently, my office has been asked to clarify the issue of when a 780 CMR 1.06 inspection, conducted by the local building inspector and signed by the Head of the Fire Department, is necessary prior to the issuance or renewal of a liquor license.

The Fire Safety Act of 2004 amended Massachusetts General Law Chapter 10, s. 74 to require all applicants for an alcohol beverage license (issued under the authority of the ABCC) to submit an annual valid certificate of inspection as a **precondition** to the issuance or renewal of this license. The license referred to in that section is a Chapter

138, s. 12 pourers license for alcohol intended to be consumed on the premises.

Because the ABCC does not have jurisdiction over temporary one (1) day licenses issued under Chapter 138, s. 14, the inspectional requirement is not a precondition imposed on the issuing city and town liquor licensing authorities. However, the Department of Fire Services highly recommends you work with your local licensing authority to have them require such an inspection prior to the issuance of these one (1) day licenses, where alcohol will be consumed on the premises.

Ongoing Review of M.G.L. c. 148, s. 26G½

On a related but different issue, I remind all chiefs to pay careful attention to facilities in their communities that may have changed their day to day operations due to economic conditions or have been operating on a temporary basis as an entertainment venue, but now may be subject to the provisions of M.G.L. c. 148, s. 26G½, operating as a nightclub, dance hall, discothèque or bar, in excess of 100 capacity.

If you need a reminder on the application of this law, please see the following link to a January 10, 2005 memorandum issued by the Fire Safety Commission's Automatic Sprinkler Appeals Board, which details the factors to be considered in making that determination. <http://www.mass.gov/eopss/docs/dfs/osfm/boards/asab-guidance.pdf>

October 1, 2014

Recall Notice

The Consumer Product Safety Commission has issued a recall regarding ESL and Interlogix brand 400/500 series smoke detectors.

This recall involves thirty-three models of the 400 and 500 series Edwards (ESL)-branded and Interlogix smoke detectors hard-wired into a security system. The smoke detectors were made for professional installation and used primarily in commercial buildings, schools, hotels/motels, apartments, dormitories and homes as part of the fire alarm system. More information, including how to replace models, is in the recall notice at <http://www.cpsc.gov/en/Recalls/2014/ESL-Interlogix-Hard-Wired-Smoke-Alarms-Recalled/>



September 17, 2014

Restaurant Fires

We continue to experience a significant number of fires in commercial cooking equipment in Massachusetts restaurants. Compliance with the requirements of 527 CMR 11 (now 527 CMR 1 c. 50) and its adopted reference NFPA 96, 2008 edition, relative to hood cleaning has lessened the severity of a number of these fires.

The cleaning and maintenance of cooking appliances and hood equipment continues to be a problem. NFPA 96 (2008 edition) adopted by reference in 527 CMR 11 (now 527 CMR 1 c. 50), requires that cooking equipment (fryers, broilers, woks, grilles, salamanders) be inspected, maintained and cleaned on a regular basis. Restaurant operators should consult the equipment manufacturer's installation and maintenance manual for the required frequency. This section of NFPA requires, at a minimum, a yearly inspection and servicing of the cooking equipment.

11.7 Cooking Equipment Maintenance.

11.7.1 Inspection and servicing of the cooking equipment shall be made at least annually by properly trained and qualified persons.

11.7.2 Cooking equipment that collects grease below the surface, behind the equipment, or in cooking equipment flue gas exhaust, such as griddles or charbroilers, shall be inspected and, if found with grease accumulation, cleaned by a properly trained, qualified, and certified person acceptable to the authority having jurisdiction.

Table 11.4, *Schedule of Inspection for Grease Buildup*, is included in the code, as a basis for setting a minimum inspection schedule. There are instances when this schedule will be inadequate, such as 24-hour operations, high volumes. Based on this inspection, it may be necessary to increase the cleaning and inspection frequency. The appendix of NFPA 96 provides additional information on the purpose of the inspection section.

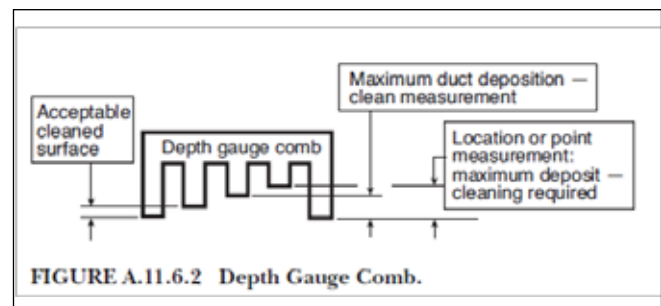
Table 11.4 Schedule of Inspection for Grease Buildup	
Type or Volume of Cooking	Inspection Frequency
Systems serving solid fuel cooking operations	Monthly
Systems serving high-volume cooking operations, such as 24-hour cooking, charbroiling, or wok cooking	Quarterly
Systems serving moderate-volume cooking operations	Semiannually
Systems serving low-volume cooking operations, such churches, day camps, seasonal businesses, or senior centers	Annually

A.11.4 The primary focus of an inspection for cleanliness is to establish whether the volume of grease buildup within the exhaust system warrants cleaning and to determine whether adequate access is available throughout the exhaust system to remove the grease buildup.

NFPA 96, section 11.6.2*, states: Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned to remove combustible contaminants prior to surfaces becoming heavily contaminated with grease or oily sludge.

The information contained in the appendix is: **A.11.6.2** Hoods, grease removal devices, fans, ducts, and other appurtenances should be cleaned to remove combustible contaminants to a minimum of 50 μm (0.002 in.). *When to clean:* A measurement system of deposition should be established to trigger a need to clean, in addition to a time reference based on equipment emissions.

The method of measurement is a depth gauge comb, shown in Figure A.11.6.2, which is scraped along the duct surface. For example, a measured depth of 2000 μm (0.078 in.) indicates the need to remove the deposition risk. The system would also include point measurement in critical areas. For example, 3175 μm (0.125 in.) in a fan housing requires cleaning.



This section is not enforceable at this time, but, as of January 1, 2015 this information has been adopted, as regulation with the NFPA 1, 2012 adoption and will be enforceable.

Fire service personnel conducting restaurant inspections should pay particular attention to surfaces beneath and behind cooking surfaces, as well as the flue gas exhaust for the buildup of grease.

September 1, 2014

RE: Food Trucks

In July 2014, a food truck explosion occurred in Philadelphia, Pennsylvania that resulted in two fatalities and multiple injuries. In the last several years, the popularity of food trucks has increased. As a result, I am identifying

Continued on next page

relevant statutes and regulations applicable to food trucks. It is recommended, in some cases, that you work with other regulatory partners, if inspecting such vehicles.

- Massachusetts General Law Chapter 101, Section 3 requires that transient vendors possess a license issued by the Division of Standards. Such license shall be subject to such local rules and regulations as may be made in a city by the mayor and city council and in a town by the selectmen. *Departments may consider asking their communities to adopt rules requiring fire department inspections.*
- 105 CMR 590 requires a food permit from and inspection by the local health department. *Departments should work cooperatively with their local health departments.*

Inspection Considerations

- Storage permits, in general, are **not** required for vehicle mounted LP gas cylinders. Cylinders located on the ground require a permit.
- 527 CMR 11 (now 527 CMR 1 c. 50), NFPA 96-2008 edition, section 4.1.9 makes the regulation applicable to “trucks, buses, trailers”.

- Section 4.1.1 – requires compliance with exhaust systems for processes which produce smoke or grease laden vapors.
- Section 10.1.2 – requires that equipment that produces grease laden vapors be equipped with fire extinguishing equipment.
- Section 11.4 – requires inspection of the exhaust system.
- 527 CMR 6.00 (now 527 CMR 1 c. 69), NFPA 58-2008 edition, section 6.23 governs LP gas installations on vehicles. (Does not apply downstream of the regulator which is governed by the State Gas Code).
- Section 5.2.2.2 – Prohibits the refilling of any cylinder with an expired re-qualification date (generally required once every 12 years). *Departments should remind LP refill stations in their communities of this requirement.*
- Section 5.2.2.1 – requires cylinders to be in service and transported in accordance with U.S. DOT regulations. (DOT prohibits the transportation of cylinder with an expired requalification date.)

2015 License Examination Schedule

The Department of Fire Services’ Division of Fire Safety issues licenses, permits and certificates of competency (“licenses”) to people and companies engaged in fireworks, blasting, explosives, special effects, cannon and mortar firing, commercial cooking exhaust system cleaning and inspection, special hazard systems, portable fire extinguishers, marine fueling facilities and above ground tanks.

To see the licensing status of an individual or company, visit the DFS License Look Up at http://elicense.chs.state.ma.us/DFS_Verification/Search.aspx or www.mass.gov/dfs and click on *Licensing* and *DFS License Look-Up*.

For information about licensing issues, contact the Licensing Desk by phone at 978-567-3700 or by email at dfs.licensing@dfs.state.ma.us.

License Exam Schedule

- Applicants must be pre-registered to sit for exams. Completed applications must be received by 5:00 p.m. on the deadline date listed below. Application forms are available at www.mass.gov/dfs then click on *Licensing*. If your application is received after the deadline, you will not be allowed to take the exam.
- All exams start promptly at 10:00 a.m., unless otherwise noted.
- License exams are given at DFS in Stow at 1 State Road, Stow, MA and at the Northampton office, 1 Prince Street, Northampton, MA. In Stow, please park in the remote lot at the top of the hill. In Northampton, park only in visitor spaces. Directions: www.mass.gov/dfs.

Examinations	Examination Dates All exams start at 10:00 a.m. unless noted	Deadlines for Applications
Fire Suppression, 10:00 a.m., Commercial Hood Cleaning, 1:00 p.m.	January 28, 2015 (Wednesday) April 22, 2015 (Wednesday) July 29, 2015 (Wednesday) October 28, 2015 (Wednesday)	January 9, 2015 (Friday) April 3, 2015 (Friday) July 10, 2015 (Friday) October 9, 2015 (Friday)
Cannon/Mortar, Fireworks, Special Effects, Blasting, Blasting R & D	February 25, 2015 (Wednesday) May 20, 2015 (Wednesday) August 26, 2015 (Wednesday) November 18, 2015 (Wednesday)	February 6, 2015 (Friday) May 1, 2015 (Friday) August 7, 2015 (Friday) October 30, 2015 (Friday)

High-Voltage Electrical Awareness

You respond to a vehicle accident with wires down. An injured victim is trapped in the auto. After you perform an initial scene assessment, then what? What problems could you encounter? What hazards do you face? What is your next step? Will your next step cause you to become part of the problem?

Fire departments often respond to incidents before the utility company arrives. How do we handle high-voltage emergencies in the field? What is “Step Potential”? How do we deal with emergencies involving electrical transformers? What are all of the wires on a typical telephone pole? What is the difference between transmission and distribution lines? Does Mother Nature play a part in the hazards we face?

The Massachusetts Firefighting Academy (MFA) has developed the High-Voltage Electrical Awareness prop and training program to prepare firefighting personnel to deal with these situations. The program covers the problems emergency workers face in a high-voltage emergency including both hazards and safe procedures. The 4-hour training includes classroom time and a display/awareness presentation using the MFA’s electrical prop. The program familiarizes first responders with electrical transformers, insulating caps, fuses, lightning arrestors, capacitor banks, various electrical meters, and primary and secondary power lines.

Request the Program

To request the High-Voltage Electrical Awareness prop and training program, complete the standard MFA Course Request Form, which can be found on the MFA



Fire departments often respond to incidents before the utility company arrives. How do we handle high-voltage emergencies in the field?

Applications Forms and Policies webpage. For more information, contact Program Coordinator Robert Haskell at Robert.Haskell@state.ma.us



Graduations

from the Massachusetts Firefighting Academy



Chief Fire Officer Class

On Thursday, December 11, 2014, 33 fire officers from 33 communities graduated from the 21st offering of the Massachusetts Firefighting Academy's (MFA) 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.

Fire officers from the following fire departments graduated in the evening ceremony: Amherst, Arlington, Auburn, Ayer, Barnstable, Billerica, Bourne, Brockton, Brookline, Cohasset, Duxbury, Easton, Everett, Falmouth, Holden, Lexington, Littleton, Longmeadow, Marblehead, Massport, Natick, Plainville, Randolph, Shrewsbury, Stow, Wakefield, Wayland, West Springfield, Westborough, Westford, Weymouth, Wrentham, and Yarmouth.



Fire Investigation Programs

The Massachusetts Firefighting Academy offers tuition-free Fire Investigation programs. The basic and advanced programs provide fire, and state and local police officers with the technical skills to accurately determine the origin and cause of fires in their jurisdictions and together, build solid, prosecutable cases.

State Fire Marshal Coan said, "The team concept of fire investigation has been used successfully in Massachusetts for over 25 years and it starts with joint training." He added, "When police and fire are trained in the same techniques and procedures together, the consistency leads to solid origin and cause determinations, and when arson is the cause, solid criminal cases."



Basic Fire Investigation Course

On September 26, 2014, 97 members of the MFA's Basic Fire Investigation course graduated. The 97 graduates, including 72 firefighters, 20 local police officers and five Mass. State Police officers, represent the following 76 agencies: Agawam Fire, Amesbury Fire and Police, Amherst Fire, Andover Fire, Aquinnah Police, Ashburnham Fire, Attleboro Fire and Police, Bellingham Fire, Billerica Fire, Boston Fire, Brockton Fire, Brookline Fire, Cambridge Fire, Centerville-Osterville-Marstons Mills Fire, Charlton Fire, Chelmsford Fire, Chelsea Fire, Concord Fire, Cotuit Fire, Dartmouth District 3 Fire, Dracut Fire and Police, Essex Fire and Police, Everett Fire, Fitchburg Fire,



Foxborough Fire and Rescue and Police, Framingham Fire and Police, Granby Fire and Police, Great Barrington Fire, Haverhill Police, Hingham Fire, Lawrence Fire, Lexington Fire, Ludlow Fire, Lynn Fire, Malden Fire, Marblehead Fire, Massachusetts State Police, Maynard Police, Milford Fire and Police, Northampton Police, Phillipston Fire, Quincy Fire, Randolph Fire, Salem Fire, Saugus Fire, Sherborn Fire, Springfield Fire, Sterling Fire and Police, Sudbury Fire, Swampscott Fire, Swansea Fire, Tewksbury Fire, Upton Fire and Police, Uxbridge Fire and Police, Waltham Fire, Wayland Fire and Police, Webster Fire, West Springfield Fire, Winthrop Fire, Worcester Fire, Yarmouth Fire and Police.

The six-day basic fire investigation course covers the concepts of witness interviewing, fire behavior, scene examination, fire scene documentation, and evidence collection. Students must pass a written exam. The program covers unintentional fires, intentionally set fires, automobile fires, fatal fires and wildland fires.

Advanced Fire Investigation Course

On October 23, 2014, 31 members of the MFA's six-day Advanced Fire Investigation course graduated. The 31 graduates, including three local police officers, four Massachusetts State Police officers and 24 firefighters, represent the following agencies: Amherst Fire, Attleboro Police, Beverly Fire, Boston Fire, Brockton Fire, Cambridge Fire, Dunstable Fire, Framingham Fire, Lawrence Fire, Lynn Fire, Massachusetts State Police, Milton Fire, Newton Fire, Oxford Fire, Somerville Fire, Southborough Fire, Southbridge Fire, Stoneham Police, Taunton Fire, Uxbridge Fire, Webster Police, Weymouth Fire, and Worcester Fire.

The advanced fire investigation course covers the concepts of fire behavior, scene examination, fire scene documentation, evidence collection, witness interviewing, and management of major fire investigations in more depth than the basic fire investigation class. It also addresses the legal issues of managing fire scenes, evidence collection, and concludes with practical exercises of participating in the courtroom process. Students give mock depositions and participate in both a mock grand jury and a mock trial.

Career Recruit Firefighter Training

Class #216

On August 29, 2014, members of Class #216 of the Career Recruit Firefighter Training program graduated after nine weeks of training. The 22 graduates, all men, represent the 14 fire departments of Attleboro, Everett, Fitchburg, Lynn, Lynnfield, Marlborough, Middleton, Milton, North



Reading, Seekonk, Wakefield, West Springfield, Westfield and Woburn. Dracut Fire Chief David Brouillette was the guest speaker.

Class #217

On September 19, 2014, members of Class #217 of the Career Recruit Firefighter Training program graduated. The 19 graduates, all men, represent the 12 fire departments of Bellingham, Concord, Falmouth, Gardner, Hanover, Leominster, Needham, Newton, North Andover, Norwell, Waltham, and Yarmouth.

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Class #218

On October 10, 2014, members of Class #218 of the Career Recruit Firefighter Training program graduated. The 24 graduates, two women and 22 men, represent the eight fire departments of Cambridge, Marblehead, Melrose, North Andover, Salem, Tewksbury, Wilmington, and Winchester. Ken Willette, manager of the National Fire Protection Association's (NFPA) Public Fire Protection Division, was the guest speaker.

Class #219

On October 31, 2014 members of Class #219 of the Career Recruit Firefighter Training program graduated. The 23 graduates, one woman and 22 men, represent the 13 fire departments of Agawam, Barnstable, Boxborough, Burlington, Cambridge, Dennis, Dighton, Hopedale, Lexington, Milford, Saugus, Southborough, and Waltham. Dighton Fire Chief Antone P. Roderick Jr. was the guest speaker.

Class #220

On November 21, 2014 members of Class #220 of the Career Recruit Firefighter Training program graduated. The 23 graduates, all men, represent the 11 fire departments of Abington, Acushnet, Beverly, Bourne, Braintree, Greenfield, Leominster, Middleton, Stoughton, Waltham and Westborough. Bourne Fire Chief Martin Greene was the guest speaker.

Today's firefighters do far more than fight fires. They are first responders to chemical and environmental emergencies, from suspicion of carbon monoxide to a gas leak. They perform rescues from ice and water, locked rooms, stalled elevators and vehicle crashes. They test and maintain equipment including breathing apparatus (SCBA), hydrants, hoses, power tools, and apparatus. At the Massachusetts Firefighting Academy, they learn all these skills and more.



Class #221

On December 19, 2014 members of Class #221 of the Career Recruit Firefighter Training program graduated. The 24 graduates, all men, represent the eight fire departments of East Longmeadow, Framingham, Holden, Holyoke, Lowell, Newburyport, Peabody, and Tewksbury. Framingham Fire Chief Gary T. Daugherty was the guest speaker.

Call/Volunteer Recruit Firefighter Training

Class #50

On December 17, 2014 in Easthampton, Massachusetts, members of Class #50 of the Call/Volunteer Recruit Firefighter Training program graduated having completed 320 hours of training on nights and weekends. The 22 graduates, 19 men and 3 women, represent the 11 fire departments of: Belchertown, East Longmeadow, Easthampton, Hadley, Hampden, Rowe, South Hadley, Southampton, Wales, Ware, and Westhampton.

Class #51

On December 30, 2014 in Stow, Massachusetts, members of Class #51 of the Call/Volunteer Recruit Firefighter Training program graduated. The 29 graduates, 27 men and two women, represent the 20 fire departments of: Ayer, Bolton, Douglas, Dudley, Dunstable, Grafton, Groton, Harvard, Leicester, Littleton, Lunenburg, Millbury, Newbury, Pepperell, Princeton, Rutland, Spencer, Townsend, Wareham, and Webster.

MFIRS Coding Tips

for E-Cigarette and Home Oxygen Fires

E-Cigarette Fires

The United States Fire Administration (USFA) has developed coding for fires involving electronic cigarettes or e-cigarettes. The e-cigarette, also called a personal vaporizer or electronic nicotine delivery system, is a battery-powered device that simulates tobacco smoking by producing a heated vapor, which resembles smoke. Descriptions and photographs of e-cigarette failures are consistent with known failures of lithium-ion polymer batteries, and reports of lithium-ion battery failures in mobile phones, laptops and other electronic devices are readily found. For a more detailed explanation and description go to: http://www.usfa.fema.gov/data/nfirs/support/nfirgram_electronic_cigarettes.html

Basic Module:

Incident Type: Between 100 – 199 (fire series).

Depends on what kind of fire the e-cigarette started.

Narrative: Please state in the narrative that the fire was caused by an electronic cigarette.

Fire Module:

Heat Source: 12 – Radiated or conducted heat from operating equipment.

Factors Contributing to Ignition: Whichever applies.

Fails during charging: 50 – Operational deficiency, other.

Fails any other time: 40 – Design, manufacturing installation deficiency, other.

Item 1st Ignited: Depends on situation.

Equipment Involved in Ignition: 229 – Battery (for any battery type).

Equipment Power Source: 12 – Batteries & low voltage (>50 volts).

Equipment Portability: 1 – Portable.

Equipment Brand: Brand name of the e-cigarette.

Equipment Model: Model of the e-cigarette.

Equipment Serial Number: Serial number of the e-cigarette.

Smoking and Home Oxygen Fires

Since the tracking of fires and burns involving home use of medical oxygen began in 1997, there have been 34 deaths, 79 civilian injuries and seven firefighter injuries reported to either the Massachusetts Burn Injury Reporting System (M-BIRS) or the Massachusetts Fire Incident Reporting System (MFIRS). While oxygen itself does not burn, fire needs oxygen to start and continue burning. When home oxygen is in use, objects and belongings become saturated with it. This allows fires to start more easily at lower temperatures and to burn hotter and faster than usual.



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Since the tracking of fires and burns involving home use of medical oxygen began in 1997, there have been 34 deaths, 79 civilian injuries and seven firefighter injuries reported to M-BIRS or MFIRS.

A higher concentration of oxygen in the air means that hair, plastic, skin oils, clothing, and furniture can also catch fire at lower temperatures.

Basic Module:

Incident Type: 111 – Building fire.

Property Use: Between 400 - 462 (Residential series).

Depends on actual type of residence.

Fire Module:

Heat Source: Depends on actual heat source. Smoking is the most common one. Look at Codes 61 - 65 (Smoking materials).

Item 1st Ignited: Depends on situation.

Equipment Involved In Ignition: 416 – Oxygen administration equipment.

Equipment Portability: Depends on situation.

Equipment Power Source: Depends on situation.



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Spring 2015 Senior Fire Officer Forums

Senior Fire Officer Forums (SFOF) give Massachusetts chief officers the opportunity to learn directly from national fire service experts without the time and expense of traveling to national conferences. Any Massachusetts fire officer can attend the programs. Forums include an opportunity to interact with the presenter during lunch. All programs are eligible for continuing education hours toward Fire Chief Credentialing.

Highly Reliable Organization

Speaker: Gordon Graham

Course Number: 200-014-686

Date & Time: March 17, 2015, 09:00-17:00

Location: Devens Community Center, 31 Andrews Parkway, Devens, MA

Nationally recognized speaker Gordon Graham will present a seven-hour program on the concept of creating a highly reliable organization. The program will cover how to identify the true cause of tragedies that plague our profession by focusing on the concept that a predictable event is a preventable event. Mr. Graham will teach attendees several ways to reduce accidents and injuries with an effective program of organizational risk management.

Green Buildings, The Fire Service Challenge

Speaker: Ken Willette, Manager of Public Fire Protection Division, N.F.P.A. and Staff

Course Number: 200-014-687

Date & Time: May 19, 2015, 10:00-15:00

Location: Massachusetts Firefighting Academy, 1 State Road, Stow MA

As new regulations and consumers push homebuilding and commercial construction to use green practices, the concept of "green building standards" has become increasingly popular. Green buildings are now presenting new and unique challenges to code enforcement and firefighting. This seminar will explore those challenges and will use a case study of a commercial building fire in which green construction features created unique challenges for firefighters.

Registration

To register, complete the DFS/MFA standard application at: <http://www.mass.gov/eopss/agencies/dfs/dfs2/mfa-trng/mfa-applications-forms-and-policies.html> and include a check or money order for \$20.00 made out to MFA Trust Fund with your application. Mail to: Registration - SFOF, P.O. Box 1025, State Road, Stow, MA 01775. Applications must include payment. Walk-ins are not allowed. Lunch is included.

Future Senior Fire Officer Programs

DFS is proud to present Senior Fire Officer Forums to the Commonwealth's fire service leadership. We continually search for new and exciting topics to enhance the knowledge of chief fire officers. Please contact Robert Loomer at Robert.Loomer@state.ma.us with your ideas and suggestions for future programs.

Register Now!