Homemade Explosives and Post-Blast Training for the First Responder

The primary purpose of the Home Made Explosives (HME) and Post-Blast Training class is to provide participants with the knowledge and recognition of energetic materials utilized in the manufacturing of homemade explosives and explosive devices. The course by design helps to reduce the human-caused threats by instructing the first responders on the identification and of precursor chemicals utilized to manufacture homemade explosives (HME). This course of instruction allows first responders to identify and interrupt the manufacture of HME needed to conduct potential terrorist attacks. First responders attending this HME recognition course are able to identify the threats and hazards that might occur in their geographical area by recognizing suspect behavior and common activities related to the manufacturing of HME by potential bombing suspects. This course enhances the ability to provide a safe, secure environment for law enforcement and related security and protection operations for people and communities located within the affected areas and also for response personnel engaged in life saving and life sustaining operations. This program enhances the first responder knowledge to search for secondary devices and the post-blast training allows the regional explosive detection canines the training to locate secondary devices in the post-blast area.

James Ljunggren from the Auburn Police Department will be the instructor.

This course consists of seven hours of instructor-led classroom training, followed by a 1 hour demonstration, and are all offered at our Stow campus. Funding for this course comes from a Homeland Security Urban Areas Security Initiative Federal Grant.

Activity Number: 197

Location: Massachusetts Firefighting Academy
One State Rd, Stow, MA

Time: 0800-1700

Session schedule:

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Target audience: Law Enforcement, Fire Service, Corrections, and EMS personnel.

Registration
Register at DFS Learning Management System
BACKGROUND
A suitably trained emergency response force is essential to a viable fuel cell infrastructure, not only because these personnel need to understand how to respond to a hydrogen incident, but also because firefighters and other emergency responders are influential in their communities and can be a positive force in the introduction of hydrogen and fuel cells into local markets. Having properly trained first responders will ensure a safe transition to fuel cell vehicles and hydrogen infrastructure, and pave the way for broader public acceptance.

Hydrogen fuel cell vehicles and support infrastructure is rolling out in Massachusetts, New York, Connecticut, Rhode Island, and New Jersey. A refueling station network is in development and vehicle announcements are coming soon. Stakeholders agree on the need to prepare first responders should an event occur.

ACTIVITIES
As a follow along to initial training and outreach in 2016 and 2017, Train the Trainer events are planned for March 2018. These are more detailed and utilize a live fire flame prop vehicle for demonstration of a hydrogen flame in vehicle incident scenarios. Additionally, virtual reality scenarios will be included in the classroom portion.

• Classroom portion (4 hours)
The in-class portion is in depth information on the properties of hydrogen, how fuel cells work, how the vehicles and stations operate, safety elements of vehicles and stations, response considerations, and virtual reality scenarios. The goal is for department training personnel to effectively take the information and conduct further training as needed within their departments.

• Fuel Cell Vehicle Display and Live Fire Demonstration (1 hour)
Walk-around of the Toyota Mirai Fuel Cell Vehicle. Demonstration of live hydrogen fire on the flame prop vehicle. Discussion of response techniques, demonstration of flame properties, visualization with Thermal Imaging Cameras (need a footnote that departments need to supply TICs)
NATIONAL FIRE ACADEMY PROGRAMS AT MASSACHUSETTS FIREFIGHTING ACADEMY

Emergency Response To Terrorism: Strategic & Tactical Considerations for Supervisors F0549
This two-day course is designed for the responder(s) who may be responsible for initial and expanded command of incidents involving terrorism. The course is intended to build upon the students' existing skills as Incident Commanders (ICs) and practitioners of the Incident Command System, with knowledge of the National Incident Management System, the National Response Framework, and terrorism. The class will assist the officers in preparing an effective response to the consequences of terrorism. ICs must be prepared to operate as part of a multiagency, multidiscipline and multijurisdictional response. The course uses lecture supported by case studies and practice scenarios to address the command and control challenges that will likely confront the IC. This will enable the students to apply their knowledge of pre-incident planning, managing emergency incidents, and operating as part of a Unified Command structure to ensure the safety of responders while bringing the incident to a successful conclusion.

Leadership in Supervision: Creating Environments for Professional Growth F0646
This two-day course presents the supervisor with the basic leadership skills and tools needed to perform effectively in the fire service environment. The course includes concepts related to a successful transition to supervisory and leadership roles, including concepts of adaptive leadership; change management; active followership; effective communication, including difficult conversations and advocacy-inquiry based dialogue; ethics; authority; power; decision-making; and active engagement through development of a personal plan.

Leadership in Supervision: Perspectives in Thinking F0647
This two-day course provides the supervisor with the conceptual foundation and framework for success in leadership roles by exploring creative, analytical, political and critical thinking perspectives. The course addresses skills needed for assessing situations from multiple perspectives, making critical decisions, fostering creativity and innovation, and using persuasion.

Leadership in Supervision: Frameworks to Success F0648
This two-day course provides the supervisor with the knowledge and skills to perform successfully in the fire and Emergency Medical Services environments. The course addresses professionalism, resilience, emotional intelligence, and situational awareness, as well as managing conflict, delegating, mentoring, coaching, empowering, and building collaboration and synergy for professional growth.

Fire Investigation: First Responders F0379
This two-day course is designed specifically to provide a clear definition of the role of first responders in fire investigation and provide essential knowledge to enable them to recognize the potential of intentionally set fires, preservation and protection of evidence, and proper reporting of information to appropriate officials. By strengthening the partnership between first responders and investigators, the chances for successfully solving arson-related crimes will increase. This course includes topics such as fire behavior, critical observations of the first responder, fire causes, scene security, evidence preservation, legal considerations, and documentation of findings.

Registration
Register at DFS Learning Management System
### Emergency Response To Terrorism: Strategic & Tactical Considerations for Supervisors F0549
- **Activity Number:** NF0
- **Date:** March 6 & 7, 2018
- **Time:** 0800-1700
- **Location:** Massachusetts Firefighting Academy
  One State Road, Stow, MA

### Leadership in Supervision: Creating Environments for Professional Growth F0646
- **Activity Number:** NFQ
- **Date:** April 3 & 4, 2018
- **Time:** 0800-1700
- **Location:** Massachusetts Firefighting Academy
  One State Road, Stow, MA

### Leadership in Supervision: Perspectives in Thinking F0647
- **Activity Number:** NFR
- **Date:** May 1 & 2, 2018
- **Time:** 0800-1700
- **Location:** Massachusetts Firefighting Academy
  One State Road, Stow, MA

### Leadership in Supervision: Frameworks to Success F0648
- **Activity Number:** NFS
- **Date:** June 5 & 6, 2018
- **Time:** 0800-1700
- **Location:** Massachusetts Firefighting Academy
  One State Road, Stow, MA

### Fire Investigation: First Responders F0379
- **Activity Number:** NFT
- **Date:** September 4 & 5, 2018
- **Time:** 0800-1700
- **Location:** Massachusetts Firefighting Academy
  One State Road, Stow, MA
POST BLAST INVESTIGATIONS

This course introduces the experienced fire investigators to Improvised Explosive Devices (IED) and Post Blast Scenarios. Students will receive initial instruction on post blasts and IED’s and then be required to work in a team concept to document a post blast scene through photography, scene diagramming and witness interviewing. Students are required to process, collect and submit evidence to the crime lab, as well as, brief cases, review articles and present them to the class. The class concludes with presenting the findings of the team scenario and courtroom testimony.

This course consists of sixteen (16) hours of instructor-led classroom training, eight (8) hours of practical time and ten (10) hours of self-guided online learning. Funding for this course comes from a Homeland Security Urban Areas Security Initiative Federal Grant.

Activity Number: 517-E1

Location: Massachusetts Firefighting Academy
One State Rd, Stow, MA

Time: 0800-1700

Prerequisite: Successful completion of the Massachusetts Firefighting Academy Advanced Fire Investigation course.

As part of the application process, applicants are required to complete eleven (11) preselected CFitrainer units to be considered for selection.

Specific units are listed on the course registration addendum.

This is a priority selection course.

Photo by: Mass. State Police, Fire & Explosion Investigation Unit
SENior Fire Officer Forum Series Spring 2018 - Save the Date

From the Firehouse to the Fire Floor - 45 years of Changes and Challenges in the Fire Service
Robert Pressler, Captain, Christina DE Fire Company

Fire service veteran Bob Pressler looks back at his 45-year career to reflect upon how our profession has evolved. In this presentation he uses the lessons learned over those years to help better prepare today's Company Officers as they prepare for the changing roles and challenges of modern fire service leadership.

From the Firehouse to the Fire Floor looks at the evolution of a new firehouse culture and the challenges of leading and managing a new generation of Firefighters. Chief Pressler shares his thoughts on how today's strategies and tactics have changed. He explores the risks with today's lightweight building construction. The UL/ NIST studies, transitional attack, low staffing tactics, and several other "current" Fire Service topics will all be discussed.

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<td>Location: Massachusetts Firefighting Academy</td>
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Think Like an Incident Commander
Thomas Dunne, Deputy Chief, New York City Fire Department (Ret)

What is an Incident Commander seeing, thinking, and feeling when he supervises a fire operation? Tactics may vary at various incidents, but the one constant is the Incident Commander’s thought process. How is his view of a fire different and how can his perspective make you a more effective Firefighter, Chief, or Company Officer?

This interactive course is geared to illustrate key points in preparation, size up, fire ground decision making, and communications. Videos, case studies, fire ground radio transmissions, and interactive fire simulations are used to present the challenges inherent in making rapid emergency decisions. Students are offered tools to help them perform a skillful size-up, communicate effectively, and project control over chaotic emergency incidents.

This course is relevant for Chiefs and Company Officers who serve as the initial Incident Commanders at a fire; however, the ability to “think like an IC” allows for safer tactics by Firefighters of all ranks.

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<td>Location: Massachusetts Firefighting Academy</td>
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Registration
Register at DFS Learning Management System
From the X-Box to a Box Alarm - Understanding and Leading Today’s New Generation of Firefighters

Presented By: Tiger Schmittendorf, Deputy Fire Coordinator,
Erie County Department of Homeland Security & Emergency Services (Ret)

This presentation utilizes ‘edutainment,’ deep questioning and engaging facilitated conversation supported by relevant text, videos and images that reinforce presentation objectives, specifically identifying the learning and communications habits of today’s Firefighters and prospective recruits.

“From the X-Box to the Box Alarm” addresses the challenges of today’s fire service leaders in attracting, retaining and connecting with today’s Firefighters who form the future of emergency services in their communities.

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A Fire Officer’s Guide to Today’s Buildings on Fire

Christopher Naum, Chief of Training, Command Institute (NY|DC)

Presenting insights on building construction for today’s fire service, the primary objective of this program is to increase awareness and understanding in the fundamentals of building construction, architecture, engineering and design that directly impact firefighting and command operations at structure fires based on emerging construction systems.


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Future Senior Fire Officer Programs – The agency is proud to present the Senior Fire Officer Forum to the Commonwealth’s Fire Service Leadership. We continually search for new and exciting topics which will enhance the responsibilities of Fire Officers who are climbing the fire service ladder or reached the Fire Chiefs level of management of their organization. Please contact Robert Loomer at Robert.Loomer@state.ma.us with your ideas and suggestions for those programs that you would participate in and like to see as part of the program.

Registration
Register at DFS Learning Management System
March 13, 2018

Activity Number: SOV

Location: Massachusetts Firefighting Academy
One State Rd, Stow, MA

Time: 0900-1300

This forum is eligible for credit toward Fire Chief Credential.

SENIOR FIRE OFFICER FORUM
FROM THE FIREHOUSE TO THE FIRE FLOOR –
45 YEARS OF CHANGES AND CHALLENGES IN THE FIRE SERVICE

Presented By: Robert Pressler, Captain, Christina DE Fire Company

Fire service veteran Bob Pressler looks back at his 45-year career to reflect upon how our profession has evolved. In this presentation he uses the lessons learned over those years to help better prepare today's Company Officers as they prepare for the changing roles and challenges of modern fire service leadership.

From the Firehouse to the Fire Floor looks at the evolution of a new firehouse culture and the challenges of leading and managing a new generation of Firefighters. Chief Pressler shares his thoughts on how today's strategies and tactics have changed. He explores the risks with today's lightweight building construction. The UL/ NIST studies, transitional attack, low staffing tactics, and several other "current" Fire Service topics will all be discussed.

ABOUT THE SPEAKER

Robert Pressler has been involved in the Fire Service for over 44 years and is retired from the Fire Department of New York, where he had attained the rank of Lieutenant. In addition to his service with FDNY, he had also served as a volunteer firefighter including previous service as the Chief of the Montgomery, NY Fire Department. He remains active in the fire service and is currently a Captain with the Christiana, DE Fire Company.

Captain Pressler holds a degree in Fire Protection Engineering from Oklahoma State University. He has previously presented at the FDIC, Firehouse Expo, Firehouse World, and Firehouse Las Vegas. Robert Pressler has previously served on the Advisory Boards of both Fire Engineering and Fire Chief magazines and currently serves on the Board of Directors of the Fire Department Training Network.

Bob has written numerous articles for several trade magazines and lectures around the country on a wide variety of Fire Service issues.
SENIOR FIRE OFFICER FORUM
THINK LIKE AN INCIDENT COMMANDER

Presented By: Thomas Dunne, Deputy Chief, New York City Fire Dept. (ret)

What is an incident commander seeing, thinking, and feeling when he supervises a fire operation? Tactics may vary at various incidents, but the one constant is the incident commander’s thought process. How is his view of a fire different and how can his perspective make you a more effective Firefighter, Chief, or Company Officer?

This interactive course is geared to illustrate key points in preparation, size up, fire ground decision making, and communications. Videos, case studies, fire ground radio transmissions, and interactive fire simulations are used to present the challenges inherent in making rapid emergency decisions. Students are offered tools to help them perform a skillful size-up, communicate effectively, and project control over chaotic emergency incidents.

This course is relevant for Chiefs and Company Officers who serve as the initial Incident Commanders at a fire; however, the ability to “think like an IC” allows for safer tactics by Firefighters of all ranks.

ABOUT THE SPEAKER

Thomas Dunne is a retired Deputy Chief and a 33-year veteran of the New York City Fire Department with extensive experience working in midtown Manhattan and the Bronx. He has been the Incident Commander at hundreds of fires and emergencies in residential, commercial, and high-rise buildings. He also served as the training and safety coordinator of Division 7 in the FDNY and functioned as a liaison with the media and community groups.

Chief Dunne has lectured on fire safety, emergency management, and human behavior in disasters at conferences and colleges across the country through his “Third Alarm Fire Training” seminars. His target audience has included business professionals, students, emergency response agency leaders, disaster relief agency volunteers, and fire and medical professionals. A Fordham University graduate, he has written numerous articles for fire service publications and serves as an adjunct instructor for the National Fire Academy.
**ADVANCED FIRE INVESTIGATION**

This course will cover state-of-the-art investigation practices for individuals new to fire investigation as well as provide new concepts for those experienced fire investigators. In a practical exercise, students will be assigned to one of four fire investigation teams. In turn, each team will investigate and evaluate a fire scene to determine the area of origin, the ignition source, the materials first ignited and the ignition sequence of the fire. Students will also be acquainted with the use of accelerant detection K-9s, learn to properly prepare diagrams, conduct interviews, record the fire scene with photographic documentation and establish field notes of the incident scene. Students will be able to identify, collect and preserve evidence using the proper physical and legal procedures. This course will provide information that will allow the student to make presentations in legal settings as well as aid in the preparation of reports that will be useful in their participation of a mock civil and criminal trial proceeding.

It is strongly recommended a firefighter and a police officer from the community should apply as a team. Past participation by a firefighter and/or police officer in your community will satisfy this recommendation.

This course consists of twenty-four (24) hours of instructor-led classroom training, twenty-four (24) hours of practical time and four (4) hours of self-guided online learning.

This intensive course requires students to have 100% mandatory attendance. In addition, students shall participate in case studies, and present an oral brief to the class. The final course exam is an open book fifty (50) question online test.

This course meets or exceeds the job performance requirements in the NFPA Standard 921 Guide for Fire and Explosion Investigations and the NFPA Standard 1033 for Fire Investigator.
The courses listed below are available at the time this calendar is created and are available through our new DFS Learning Management System

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- 16 Surface Ice Rescue: Tech, Abington
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- 20 Rapid Intervention Ref., Bourne FD HQ
- 21 Rapid Intervention Ref., Bourne FD HQ
- 22 Rapid Intervention Ref., Bourne FD HQ
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- 24 Surface Ice Rescue: Tech, Huntington
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4. Protective Breathing Search & Rescue, Leverett FD

9. Ethanol for 1st Responders, Framingham FD HQ

10. Protective Breathing Search & Rescue, Leverett FD

15. Firefighter Survival Skills Saving Ourselves, Canton FD HQ

20. Public Fire & Life Safety Educator (PFALSE), Middlesex Cty Sheriff's office

21. Rapid Intervention, Burlington FD

22. Flammable Gas FF Trng, Auburn FD

23. Protective Breathing Search & Rescue, New Marlborough FD

24. Protective Breathing Search & Rescue, Leverett FD
Carbon Monoxide
Winter Storm Warning!

Hundreds of people die accidentally each year from 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.

Winter snows can create drifts that block furnace and dryer exhaust vents, forcing carbon monoxide (CO) gas to back-up into homes. The heat from the exhaust may not melt the snow, especially after a power outage.

Use care when shoveling out a car. Make sure the tail pipe and undercarriage are free of snow before turning on the engine. Crack the windows to prevent CO build-up.

Carbon monoxide gas is produced whenever any fuel, such as gas, oil, kerosene, wood or charcoal is burned.

**Appliances and CO Safety**

If appliances that burn fuel are properly maintained and used, the amount of CO produced is usually not hazardous. Read and follow the manufacturer’s instructions that come with fuel-burning devices. During snowstorms, keep furnace and dryer vents clear.

However, if appliances are not working properly or are used incorrectly, dangerous levels of CO can result.

- Have a qualified service technician inspect your appliances yearly, before the heating season.
- Check vent pipes, flues and chimneys for leaks or blockages.
- Un-vented kerosene heaters are illegal in MA.
- Never use a charcoal grill indoors!
- Do not use a gas oven to heat your home.
- Don’t leave a vehicle running inside a garage, even if the door is open. Fumes will build up quickly inside the home.
- Snow can block car tailpipes outdoors.
- Never use gasoline-powered engines (generators, chain saws, blowers, weed trimmers, mowers or snow blowers) indoors or near doors or windows.

**Carbon Monoxide is:**

- **Odorless**
- **Colorless**
- **Tasteless**
- **Poisonous**
Generators and CO Safety
- Place generators outdoors facing away from doors, windows and vents.
- Never use a generator inside a house, basement or crawl space.
- Never use a generator inside a garage, even if the garage door is open.

Symptoms of Carbon Monoxide (CO) Poisoning
CO enters the lungs and blood where it competes with oxygen normally carried by red blood cells. CO attaches to the cells 200 times easier than oxygen. Without oxygen cells begin to die.

Exposure to carbon monoxide can produce flu-like symptoms such as:
- Headache
- Nausea
- Dizziness
- Confusion
- Fainting

At higher levels, CO exposure can cause:
- Unconsciousness
- Death

What to Do If You Suspect CO Exposure
- Get out of the house or car and get fresh air.
- Call the fire department from outside or a neighbor’s house.
- If you have symptoms, seek medical help immediately.

Protect Your Family
- Install carbon monoxide alarms on every level of your home, except unfinished basements or attics.
- Since 2006, state law has required carbon monoxide alarms in most homes.
- Locate CO alarms near bedrooms so family members will awaken at night.
- Alarms should be kept away from open windows or doors, excessively hot, cold or damp areas and “dead-air spaces” such as corners of rooms and peaks of ceilings.
- Do not place a CO alarm in a garage, furnace room, near the stove or fireplace.
- Change the batteries according to directions.
- Change the back-up batteries after a prolonged power outage.
- Know the difference between the alarm signal and the low battery alert.

Replace Aging CO Alarms
- Replace aging CO alarms every 5-7 years according to directions.
- Newer model CO alarms have a 10-year sealed lithium battery that does not need changing. At 10 years, the entire device is replaced.
Monóxido de Carbono
¡Advertencia Sobre Tormenta de Invierno!

Cada año, cientos de personas mueren accidentalmente a causa de la intoxicación con monóxido de carbono debido al mal funcionamiento o uso incorrecto de artefactos que queman combustibles (datos de la Agencia de Protección Ambiental, EPA). Según la publicación *Journal of the American Medical Association* (JAMA), el monóxido de carbono es la causa número uno de muertes por intoxicación en los EE.UU.

Las nevadas invernales generan acumulación de nieve que puede obstruir las ventilaciones de calderas y secadoras de ropa, provocando que el monóxido de carbono (CO) entre a los hogares. El calor del tubo de escape puede no derretir la nieve, especialmente después de un corte de energía.

Tenga cuidado cuando quite la nieve del auto. Asegúrese de que el tubo de escape y el chasis estén libres de nieve antes de encender el motor. Baje un poco las ventanillas para evitar que se acumule CO.

El monóxido de carbono es un gas que se produce cuando se queman combustibles como gas, petróleo, kerosene, madera o carbón.

**Artefactos Domésticos y Seguridad CO**

Si los artefactos que queman combustible se mantienen y utilizan correctamente, la cantidad de CO producida en general no es peligrosa. Lea y siga las instrucciones de fábrica, que vienen con el artefacto. Durante las tormentas de nieve, mantenga libres las ventilaciones de calderas y secadoras.

De todos modos, si estos artefactos no funcionan bien o son utilizados en forma incorrecta, pueden acumularse niveles peligrosos de CO.

- Pida a un técnico calificado que inspeccione sus artefactos una vez por año, antes de la temporada en que va a usar calefacción.
- Verifique que no haya pérdidas ni bloqueos en tubos de ventilación, conductos y chimeneas.
- Los calentadores a kerosene sin ventilación son ilegales en MA.
- ¡Nunca use una parrilla/grill a carbón en un ambiente interior!
- No utilice la cocina/horno a gas para calentar la casa.
- No deje el auto con el motor encendido dentro de un garaje, ni siquiera con la puerta del garaje abierta. Los gases se acumularán rápidamente dentro de la casa.
- La nieve puede bloquear los tubos de escape de autos en el exterior.
- Nunca use motores a gasolina (generadores, motosierras, sopladores, desmalezadores, cortadoras de césped o sopladores de nieve) en el interior ni cerca de puertas o ventanas.

El Monóxido de Carbono es:
- Tóxico
- Inoloro (sin olor)
- Incoloro (sin color)
- Insípido (sin sabor)
Generadores y Seguridad CO

- Coloque los generadores en el exterior, en sentido contrario a puertas, ventanas y conductos de ventilación.
- Nunca use un generador dentro de una casa, un sótano o entresuelo.
- Nunca use un generador dentro de un garaje, aunque deje la puerta del garaje abierta.

Síntomas de Intoxicación por Monóxido de Carbono (CO)

El CO ingresa a los pulmones y la sangre, donde compite con el oxígeno que normalmente transportan los glóbulos rojos. El CO se adhiere a las células 200 veces más fácil que el oxígeno. Sin oxígeno, las células empiezan a morir.

La exposición a monóxido de carbono puede causar síntomas parecidos a los de la gripe, como:
- Dolor de cabeza
- Náuseas
- Mareos
- Confusión
- Desmayo

A niveles mayores, la exposición a CO puede causar:
- Pérdida de conciencia
- Muerte

Qué Hacer Si Sospecha de Exposición a CO

- Salga de la casa o el auto y tome aire fresco.
- Llame al departamento de bomberos desde el exterior o desde la casa de un vecino.
- Si tiene síntomas, busque ayuda médica de inmediato.

Proteja a Su Familia

- Instale alarmas de CO en cada nivel de su hogar, excepto sótanos o áticos sin terminar.
- Desde 2006, la ley del Estado exige la instalación de alarmas de monóxido de carbono en la mayoría de los hogares.
- Coloque las alarmas de monóxido de carbono cerca de los dormitorios, para que los miembros de la familia se despierten de noche en caso de que se activen.
- Las alarmas deben mantenerte alejadas de ventanas o puertas abiertas, áreas calientes, frías o húmedas y “espacios de aire muerto”, como rincones de habitaciones y puntas del techo.
- No coloque alarmas de CO en garajes, habitación de la caldera, cerca de la estufa/cocina o chimenea.
- Cambie las baterías de acuerdo con las instrucciones.
- Cambie las baterías de repuesto (back up) después de un corte de electricidad prolongado.
- Conozca la diferencia entre la señal de alarma y el aviso de baja batería.

Reemplace Alarmas de CO Desactualizadas

- Reemplace las alarmas de CO cada 5 -7 años, según las instrucciones.
- Los nuevos modelos de alarmas de CO tienen una batería de litio sellada de 10 años que no hace falta reemplazar. A los 10 años, se reemplaza el dispositivo completo.

Fuentes de CO:
- Calderas y calentadores de agua
- Chimeneas y estufas a leña
- Calefactores a gas y/o aceite
- Ventilaciones bloqueadas de calderas y secadoras de ropa
- Caños de escape de autos bloqueados por nieve
- Generadores
- Vehículos con motor en marcha
- Parrillas/grills y hornillos de camping
- Cocinas/Hornos a gas usados para dar calor
- Herramientas a gas, como equipos para remover nieve y de jardinería
Hot Liquids
Burn Like Fire

Scalds caused 88% 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.
• Seventy-four percent (74%) 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 over 5 times more likely to be burned by cooking activities than others.
• Twenty-nine percent (29%) of all cooking-related burns were suffered by children under five years old.

Los líquidos calientes queman como fuego

Los líquidos calientes fueron la causa del 88 % del total de quemaduras en niños menores de 5 años.

**Bebidas calientes**

- Deje su café cuando cargue un bebé. Un bebé inquieto puede sacudir el brazo de la persona que lo sostiene y derramarse la bebida encima.
- Coloque las bebidas y las sopas en el centro de la mesa, lejos de dedos curiosos. A los bebés les gusta agarrar cosas.
- Considere reemplazar los manteles de mesa por manteles individuales y así evitar que los niños se tiren encima todo lo que está sobre la mesa.
- Las bebidas calientes son la causa de casi un cuarto de las quemaduras en niños menores de cinco años.
- El 74 % de las víctimas de quemaduras con bebidas calientes tenían menos de cinco años.

**Agua del grifo**

- Toma solo un segundo que el agua a 155 °F cause una quemadura de tercer grado.
- Coloque su calentador de agua a 125 °F o menos. (La ley de Massachusetts indica que la temperatura debe estar a entre 110 °F y 130 °F).
- Siempre supervise a los niños pequeños durante el baño y colóquelos de espaldas a los grifos. A los bebés y niños pequeños les encanta jugar con perillas y manijas. Pueden abrir el agua caliente cuando usted se da la vuelta.

**En la cocina**

- Gire hacia adentro los mangos de las ollas.
- Establezca y haga cumplir una zona de NO PASAR alrededor de la estufa. No deje que los niños jueguen cerca de la estufa o el asador. Esto los protege de los líquidos de cocción, la grasa y el metal caliente.
- Los niños menores de cinco años tienen 5 veces más probabilidades de resultar quemados durante actividades de cocina que otros.
- El 29 % de todas las quemaduras relacionadas con la cocina fueron sufridas por niños menores de cinco años.

Datos estadísticos obtenidos del Informe Anual 2015 del Massachusetts Burn Injury Reporting System (Sistema de Reporte de Lesiones por Quemaduras de Massachusetts).
PREVENT BURNS!


Stay away from burner or flame. Don’t wear loose clothing near fire.

Keep children away from stoves, outdoor grills, campfires, and fireplaces.

Always turn off an iron when it’s unattended.

Keep hot liquids out of reach of children.

Don’t let appliance cords dangle where children can reach them.

Turn down water heater to less than 130°. Higher temperatures can cause third degree burns (the worst) in two seconds!

Always turn off an iron when it’s unattended.

Turn pot handles toward the back of the stove.

Never use gasoline to start a fire. Use starter fluid with care.

Never smoke in bed.

Protect your skin from the sun. Use tanning products with a high SPF rating.

KINDS OF BURNS

FIRST DEGREE: Epidermis (top layer of skin) is damaged. Skin is red and may swell. Victim feels pressure and pain.

SECOND DEGREE: Epidermis and dermis (second layer of skin) damaged. Blistering may occur.

THIRD DEGREE: Epidermis, dermis, and nerve endings destroyed. Victim may or may not feel pain. Skin is discolored (white, brown, black or red) and leathery in texture. Muscle, fat, and bone may also be destroyed.
FIRST AID FOR BURNS

Stop, drop and roll!

Cool burn area with cool water. Continuously flush a chemical burn.

Never put grease, butter, or ointment on a burn.

Don’t remove clothing from the burn.

Remove victim from area of danger.

Cover burn with clean sheet or towel.

Call 911 immediately.