

Commonwealth of Massachusetts

DEPARTMENT OF HOUSING &  
COMMUNITY DEVELOPMENT

Mitt Romney, Governor ♦ Kerry Healey, Lt. Governor ♦ Jane Wallis Gumble, Director

**PUBLIC HOUSING NOTICE: 2006-6**

**COMPLIANCE WITH "NICOLE'S LAW" - CARBON  
MONOXIDE ALARMS REQUIRED**

To: All Local Housing Authorities  
From: Marc A. Slotnick, Associate Director for Public Housing and Rental Assistance  
Ray Frieden, Director, Bureau of Housing Development and Construction  
Date June 14, 2006  
cc: MassNAHRO, MAHAMS, HUD – Office of Public Housing

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As you may be aware, on Friday, November 4, 2005, Governor Romney signed Nicole's Law, Chapter 123 of the Acts of 2005, requiring carbon monoxide detectors in any residence that (1) contains fossil-fuel burning equipment (FFBE); or (2) incorporates enclosed parking within its structure. The law is named for 7-year-old Nicole Garofalo who died in January 2005 when a heating vent in her house was blocked by snow drifts, allowing carbon monoxide to accumulate in the home. The law required the Board of Fire Prevention Regulations (BFPR) to promulgate regulations to implement the law. Those regulations went into effect on February 10, 2006, and were amended March 20, 2006. Most residential properties had until March 31, 2006, to comply with the law but **Public housing has until midnight of December 31, 2006, to be in full compliance with the law.**

DHCD has monitored the drafting of the regulations by the BFPR so that we would be in a position to offer assistance to LHAs in complying with the requirements of the law in a timely fashion. We have developed a program to directly provide you with Alarm units together with a funding allowance for installation and to offer technical assistance with respect to where and how to install the alarms. The program will be administered by the Worcester and Somerville Housing Authorities. We estimate that compliance with the law will require approximately 50,000 alarm units and cost approximately \$1 million. We have developed this program so that all LHAs can be in compliance with the law by the start of the heating season (Sept. 15, 2006).

In this package of materials you will find the following:

- 1) **DHCD Carbon Monoxide Alarm Compliance Program for State-Supported Public Housing**  
A detailed description of the program including contact numbers and e-mail addresses of individuals in the various organizations who will serve as points of contact. Begins on page 3.
- 2) **Carbon Monoxide Alarm Program Instructions and Application Forms**  
Application forms for ordering the necessary number of Alarms based on your inventory of your portfolio, for certifying that they have been installed and for invoicing for their installation. Also, a separate order application form for obtaining specialized detection and notification equipment for each tenant requiring a reasonable accommodation. Begins on page 8.
- 3) **The Statute: Chapter 123 of the Acts of 2005**  
Begins on page 13.
- 4) **The Regulations: 527 CMR 31.00**  
A copy of the current, emergency regulations promulgated by the BFPR. Note that these regulations have not completed the formal adoption process required of such regulations and may yet be modified as part of the formal public hearing and adoption process. DHCD will continue to monitor and participate in the adoption process, will notify LHAs of the availability of the final regulations and provide commentary if there have been substantive changes from this version of the regulations. Begins on page 15
- 5) **Carbon Monoxide Fire Safety Flyer**  
A copy of a pamphlet published by the Fire Marshal's office answering questions about Carbon Monoxide and the threat it represents to your tenants. Pages 20 and 21
- 6) **Carbon Monoxide Consumers Guide**  
A copy of a pamphlet provided by the Fire Marshal's office giving its interpretation of the requirements of the regulations. This might be a useful document to refer to in determining where Alarms are required and to have available during an inspection by a local Fire Department. Pages 22 and 23.

If you have any questions about carbon monoxide, the alarms or the regulations, we urge you to go to the Department of Fire Services web site:

[www.mass.gov/dfs/osfm/pubed/firesafetytopics/carbon\\_monoxide\\_safety.htm](http://www.mass.gov/dfs/osfm/pubed/firesafetytopics/carbon_monoxide_safety.htm)

You may also contact Joe DiMare (see contact information below) or your DHCD Construction Advisor for help in determining where to locate alarm units or Bob Carreiro, Aaron Beineke or your Housing Management Specialist for help filling out the forms.

## **DHCD Carbon Monoxide Alarm Compliance Program for State-Supported Public Housing**

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### **GOAL:**

For the Local Housing Authorities (LHA) with state-supported public housing units that ask for assistance under this program: to achieve substantial compliance with the requirements of Chapter 123 of the Acts of 2005 by 12-31-2006.

### **STATUTE:**

Chapter 123 of the Acts of 2005 (Nicole's Law)

### **REGULATIONS:**

527 CMR 31.00 Carbon Monoxide Alarms

### **SUMMARY OF REQUIREMENTS:**

The Regulation requires that LHAs that own or operate residential buildings or structures that have fuel-burning equipment in them, equip them with working and Listed Carbon Monoxide Alarm Protection (CO Alarms) on each habitable floor and within 10 feet of every bedroom door. Listed CO Alarms include battery operated, plug-in, hard wired, wireless and combination types. The deadline for compliance for LHAs is midnight of 12/31/06. (Reference 527 CMR 31.00 for the exact requirements)

### **SUMMARY OF PROGRAM:**

DHCD has determined that compliance with the law can best be accomplished by installing stand-alone battery operated Alarms and will supply every LHA that files a request through this program with a qualifying CO Alarm for each location where one is required in its state supported public housing developments. DHCD will also provide each LHA with an installation allowance for each of these CO Alarms. The CO Alarms will be provided through a statewide bulk purchase program. The installation allowance for retained revenue ('surplus') Authorities will be provided by a budget exemption, and for those authorities that receive an operating subsidy, a cash payment will be made, in both cases only upon a certification by the authority that all Alarms have been properly installed and are working.

There is a provision in the regulation for installing hard-wired, monitored CO Alarms in and around every centralized Fossil Fuel Burning Equipment (CFFBE) in lieu of installing CO Alarms in every unit. DHCD believes that this option offers no more protection to tenants than the individual CO Alarms located in each apartment and that, in almost every case, it is more expensive and problematic. Hence, this program is to provide CO Alarms in every apartment. If an LHA believes, however, that this option is less expensive than individual CO Alarms in a particular situation, the Executive Director should contact Joseph DiMare (see below) to arrange

for a preliminary evaluation of the conditions at the particular development. In no case, however, will DHCD reimburse an LHA more than the program cost of Alarms in each apartment.

### **PROGRAM DETAILS:**

**1) Bulk Purchase:** DHCD has researched the price and availability of battery-operated CO Alarms purchased through the COMPASS system. NorthEast Electrical Supply had the lowest quote for such CO Alarms, including batteries and delivery, when purchased in bulk for the majority of LHAs. DHCD will make approved quantities of these units available to all LHAs who apply for such assistance. DHCD will also arrange for payment for such CO Alarms through lead LHAs in each region. This process should be largely transparent to individual LHAs.

NorthEast Electrical, the vendor for the Alarms, and Kidde, the manufacturer, have agreed to give individual LHAs this same price for Alarm units to be used in Federal (HUD) developments. You will need to make your own, separate ordering and payment arrangements directly with NorthEast for such Alarm units, however. Mr. Garber (see below) will be glad to help.

**2) Installation Allowance:** LHAs will be given an allowance to cover the cost of installation of CO Alarms at the rate of \$5.00 per Alarm location – either as a payment to deficit authorities or a budget exemption to retained revenue authorities.

**3) Location of CO Alarms:** Accompanying this letter is a copy of the regulation plus some instructions and diagrams produced by the Fire Marshal's Office to help you figure out where you will need to install CO Alarms in order to comply with the law. You should also consult with your local Fire Department. You or a member of your staff should survey your portfolio immediately to determine where you will need to locate CO Alarms and thus how many CO Alarms you will need. DHCD will provide technical assistance to the extent that it can, but each LHA will be expected to have surveyed 100% of its portfolio so that technical assistance can be complete and narrowly focused. Prior to actual installation, you and your staff should carefully review the manufacturer's instructions for installation as well.

**4) Procedures:** DHCD will be responsible for funding the program, the approval of purchase orders, and technical assistance to each LHA. The Somerville and Worcester Housing Authorities will serve as lead administrative agencies for this program. They will process payments to the state-wide vendor and will pay installation allowances to deficit LHAs.

In order to apply for assistance under this program, fill out the included application/order form, sign it and send it to Aaron Beineke at DHCD. Once the number of CO Alarms needed by your LHA to comply with the law has been approved, a copy of the approved form will be returned to you, a copy will be sent to NorthEast and a copy sent to your lead LHA. You will now be ready to call NorthEast (Howard Garber, see below) and make delivery arrangements. If on site storage is a problem, NorthEast Electrical has agreed to make a limited number of partial shipments as long as each partial delivery (except for the last one) consists of a multiple of 10 Alarms. Your signature on the delivery receipt is DHCD's assurance that you received that number of Alarms. That is the number that NorthEast will be paid for and that you can obtain installation allowances for. Be aware that availability may be a short-term problem and that you may not get the alarm

units the day after you order them. We are doing our best to work with the manufacturer and avoid this delay, however.

Once the alarms have been delivered, submit the vendor's invoice, a signed packing slip, and a copy of the approved CO Alarm application form, stapled together in that order, to the lead LHA.

Once you have installed the Alarms, submit a bill to the lead LHA (if you are a deficit Authority) or DHCD (if you are a retained revenue Authority) certifying the address, number of CO Alarms in each apartment, the date(s) on which the Alarms were installed and that they were in good working order in each apartment. You will be issued an allowance or budget exemption as appropriate for each CO Alarm installed and certified.

If a tenant with a disability requires a reasonable accommodation such as a strobe Alarm, see below. Instructions for determining a design, obtaining a Purchase Order for equipment from NorthEast and a special allowance for installation are given. The LHA can then proceed as above to obtain the equipment, do the installation and receive reimbursement for the installation cost.

**5) Reasonable Accommodations:** DHCD will provide alternative notification equipment (strobes) and reimbursement for its installation where the need for such a reasonable accommodation has been determined in accordance with established DHCD and LHA operating protocols and the design of the reasonable accommodation has been approved by DHCD. Generally, these Alarms consist of two parts – a sensor/actuator and a strobe light – and are powered by 110 volt AC current. Both will need to be installed into the building electrical system by a licensed electrician. A separate Application for a Reasonable Accommodation should be filled out for each reasonable accommodation address. For application forms, please see below for the section titled:

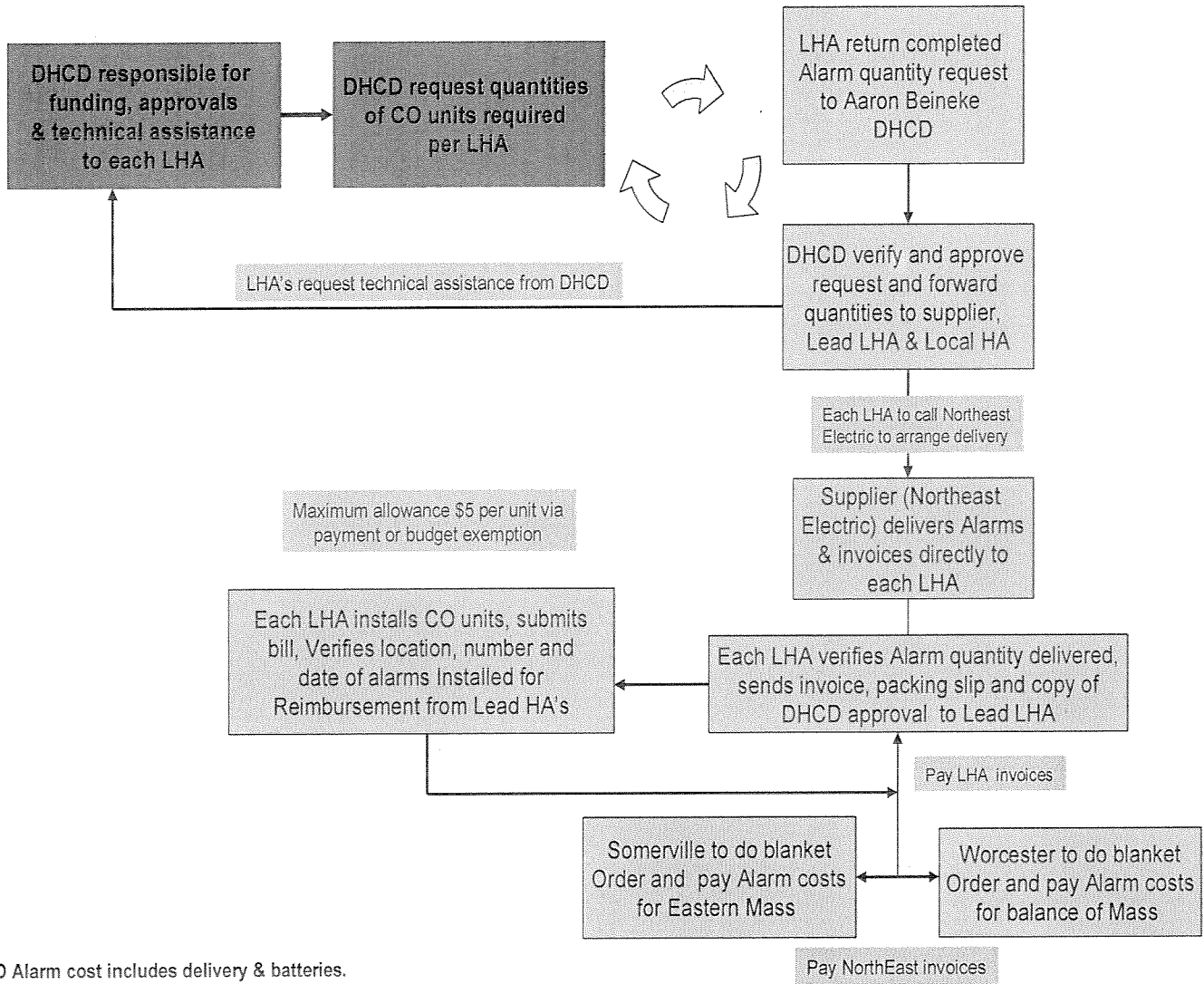
**Carbon Monoxide Alarm Program Instructions and Application Forms**

**6) Program Contacts:**

If you need help, there are lots of people ready to help you depending on what type of help you need -- see table below. For most questions, we would suggest that you use e-mail rather than the telephone. That makes it a little easier on your Lead Authority, provides you with a record of the response and gives us the opportunity to create a file of FAQs (Frequently Asked Questions) to share questions and answers among all of the LHAs participating in the program:

Purpose	Name	Title	Phone/FAX	E-Mail
Program Eligibility, General Questions	Robert Carreiro	DHCD Housing Management Specialist	617-573-1229 (v) 617-573-1340 (F)	Robert.Carreiro@state.ma.us
Regulatory Requirements, General Questions	Aaron Beineke	DHCD Project Manager	617-573-1175 (v) 617-573-1335 (F)	Aaron.Beineke@state.ma.us
Technical Questions, Special Circumstances	Joseph DiMare	Supervising Engineer	617-513-1157 (v) 617-573-1335 (F)	Joseph.DiMare@state.ma.us
Processing and Payments	Ted Distaso	Worcester Housing Authority Program Manager	508-635-3113 (V) 508-635-3187 (F)	distasot@worcester-housing.com
	Bob Covelle	Somerville Housing Authority Program Manager	617-625-1152 (V) 617-628-7057 (F)	bobc@sha-web.org
Alarm Orders or Deliveries	Howard Garber	NorthEast Electrical Supply Manager	781-401-8511	

**PUBLIC HOUSING NOTICE: 2006-6 DHCD CARBON MONOXIDE ALARM COMPLIANCE PROGRAM FOR STATE-AIDED PUBLIC HOUSING**



## Carbon Monoxide Alarm Program Instructions and Application Forms

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If you wish to take advantage of the **DHCD Carbon Monoxide Alarm Compliance Program for State-Supported Public Housing** you must complete a count of anticipated Carbon Monoxide (CO) Alarms needed for your state funded developments with buildings that contain fossil fuel burning equipment (FFBE) as soon as possible. If you are uncertain of how to calculate this number, please refer to the enclosed material. Below are three standard forms for your use in recording the number of alarms needed and submitting requests for alarms and for installation allowances. The first, entitled **Standard CO Alarm Devices** (page 10) is for requesting basic battery-operated stand alone alarms as required by the regulations and for certifying the installation of those alarms. The second, entitled **Reasonable Accommodation CO Sensors and Relays** (page 11) is for those special cases where a tenant is eligible for such a device. The third, entitled **INVOICE for Installation of required Carbon Monoxide Alarms** (page 12) is for use to invoice your lead Housing Authority (if you are a deficit authority and receive a subsidy) or DHCD (if you are a retained revenue authority) for your installation allowance or budget exemption. Your lead Housing Authority is either the Somerville or Worcester Housing Authority, depending on what county you are in.

If you are in **Essex, Middlesex, Norfolk or Suffolk counties**, your lead Housing Authority is the **Somerville Housing Authority** (SHA).

If you are in **Barnstable, Berkshire, Bristol, Dukes, Franklin, Hampden, Hampshire, Nantucket, Plymouth or Worcester counties**, your lead Housing Authority is the **Worcester Housing Authority** (WHA).

Please fill in the required quantities and submit the count(s) to DHCD for approval:

Aaron Beineke  
100 Cambridge Street, Suite 300  
Boston, MA 02114  
or by FAX to (617) 573-1335  
or as a PDF file e-mailed to [Aaron.Beineke@state.ma.us](mailto:Aaron.Beineke@state.ma.us)

Upon approval of the number by DHCD, authorization for the number of CO detection alarms will be sent to you, with a copy forwarded to the lead Housing Authority in your region (the Somerville Housing Authority or the Worcester Housing Authority) and to NorthEast Electrical Supply, the pre-approved vendor for the procurement. Upon approval of your requested number of CO detection alarms, you should contact NorthEast Electrical Supply to arrange for a convenient delivery schedule. The NorthEast contact is Howard Garber and his phone is (781) 401-8511.

When the CO alarms have been delivered, promptly submit the vendor's invoice, the signed packing slip, and a copy of the approved purchase application form, all stapled together in that order, to the lead Housing Authority so that NorthEast can be paid promptly.

After you have installed all of the devices, submit a bill to the lead Housing Authority indicating on a copy of the approved form the dates of installation. You must sign the form to certify that



as of the date the last device was installed, all of the devices for which an allowance is being requested were properly installed. If you are a "retained revenue" authority (do not receive a subsidy), submit this certification to DHCD for a budget exemption.

In the interests of efficiency, please do not submit requests for payments for fewer than 100 units or the total number of units in your state-supported portfolio, whichever is less.

Payments to the vendor and participating housing authorities will be made promptly after funds are made available to the lead Housing Authorities by DHCD.

If you have any questions, please contact Bob Covelle ([bobc@sha-web.org](mailto:bobc@sha-web.org) or 617-625-1152) at the Somerville Housing Authority or Ted Distaso ([distasot@worchester-housing.com](mailto:distasot@worchester-housing.com) or 508-635-3115) at the Worcester Housing Authority for questions related to payments or Aaron Beineke ([aaron.beineke@state.ma.us](mailto:aaron.beineke@state.ma.us) or 617-573-1175) or Robert Carreiro ([Robert.Carreiro@state.ma.us](mailto:Robert.Carreiro@state.ma.us) or 617-573-1229 ) at DHCD for questions related to the program.

**Standard CO Alarm Devices**

**APPLICATION/PURCHASE ORDER/CERTIFICATION**

<b><u>State Funded Developments:</u></b> <b><u>Development Name/</u></b> <b><u>Program number</u></b>	<b><u>Street Address</u></b>	<b><u>Number of Alarms :</u></b>		
		<b><u>Requested</u></b>	<b><u>Received</u></b>	<b><u>Date Installed</u></b>

\_\_\_\_\_ Housing Authority approved for \_\_\_\_\_ stand alone battery-operated CO Alarms.

\_\_\_\_\_, DHCD, \_\_\_\_\_ (date)

I, \_\_\_\_\_, certify that as of \_\_\_\_\_ (date) all of the above-listed Carbon Monoxide Alarm devices have been properly installed and are in good working order.

**Reasonable Accommodation CO Sensors and Relays**  
**APPLICATION/PURCHASE ORDER/CERTIFICATION**

<b>State Funded Developments:</b>		<b>Number of Alarms :</b>		
<b><u>Development Name/ Program number</u></b>	<b><u>Street Address</u></b>	<b><u>Requested</u></b>	<b><u>Received</u></b>	<b><u>Date Installed</u></b>

\_\_\_\_\_ Housing Authority approved for \_\_\_\_\_  
Reasonable Accommodation CO Sensors and Relays.

\_\_\_\_\_, DHCD, \_\_\_\_\_ (date)

I, \_\_\_\_\_, certify that as of \_\_\_\_\_ (date) all of the  
above-listed Carbon Monoxide Alarm devices have been properly installed and are in good  
working order.

Installation of required Carbon Monoxide Alarms

INVOICE

Date: \_\_\_\_\_

Total number of stand-alone, battery-powered alarms approved for this Housing Authority:

Multiplied by consideration due for each complete installation: \*       \$5.00

TOTAL Amount to be billed for installation: \$ \_\_\_\_\_

Less amount previously invoiced: - \$ \_\_\_\_\_

Amount this invoice (\$5.00 \* number installed this period): - \$ \_\_\_\_\_

Balance remaining: \$ \_\_\_\_\_

A copy of the approved

Standard CO Alarm Devices APPLICATION/PURCHASE ORDER/CERTIFICATION

with the addresses and dates of installation of the alarms being invoiced and your signature should be attached to this invoice.

If you are a **retained revenue authority**, send to the

Department of Housing and Community Development  
100 Cambridge Street, suite 300  
Boston, MA 02114

ATTN: Aaron Beineke

If you are a **deficit authority** in one of the following counties: **Essex, Middlesex, Norfolk or Suffolk**, send to the

Somerville Housing Authority  
30 Memorial Road  
Somerville, MA 02145

Attn: Bob Covelle

If you are a **deficit authority** in one of the following counties: **Barnstable, Berkshire, Bristol, Dukes, Franklin, Hampden, Hampshire, Nantucket, Plymouth or Worcester**, send to the

Worcester Housing Authority  
40 Belmont Street  
Worcester, MA 02145

Attn: Alarm Compliance Program

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**AN ACT RELATIVE TO THE INSTALLATION OF CARBON MONOXIDE ALARMS AND SMOKE DETECTORS IN RESIDENTIAL BUILDINGS.**

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

**SECTION 1.** The first paragraph of section 10A of chapter 148 of the General Laws, as appearing in the 2004 Official Edition, is hereby amended by striking out the last sentence and inserting in place thereof the following 4 sentences:- The head of the fire department or the marshal may revoke any such permit for cause. A fee of \$25 may be charged by the head of the fire department for any permit granted under this section, unless otherwise set in a town by the board of select men or town council, or in a city by the mayor, but such fee shall not exceed \$50 except as provided in this paragraph. If a smoke detector inspection, conducted pursuant to section 26F, and a carbon monoxide alarm inspection, conducted pursuant to section 26F 1/2, are conducted simultaneously, the owner shall not be subject to an additional fee for the carbon monoxide alarm inspection. The fee for either a carbon monoxide alarm inspection or a smoke detector inspection, conducted separately, shall not exceed: \$50 for a single-family dwelling or a single dwelling unit; \$100 for a 2-family dwelling; \$150 for any building or structure with 6 or fewer residential units; and \$500 for any building or structure with more than 6 units.

**SECTION 2.** Section 26E of said chapter 148, as so appearing, is hereby amended by striking out, in line 1, the words "In any city or town which accepts this subsection," and inserting in place thereof the following word:- All.

**SECTION 3.** Section 27A of said chapter 148, as so appearing, is hereby amended by inserting after the word "protection", in line 4, the following words:- or carbon monoxide detection and alarm.

**SECTION 4.** Said chapter 148 is hereby further amended by inserting after section 26F the following section:-

Section 26F 1/2. (a) Every dwelling, building or structure, including those owned or operated by the commonwealth, occupied in whole or in part for residential purposes, that: (1) contains fossil-fuel burning equipment including, but not limited to, a furnace, boiler, water heater, fireplace or any other apparatus, appliance or device that burns fossil fuel; or (2) incorporates enclosed parking within its structure shall be equipped by the owner with working, approved carbon monoxide alarms in conformance with the requirements of the board of fire prevention regulations; provided, however, that such requirements shall include, but not be limited to, a requirement that a landlord or superintendent shall install either approved monitored battery-powered alarms or approved electrical wiring alarms as defined by the board, as are required to make the alarms operational at the beginning of any rental period by lease or otherwise and shall maintain and, if necessary, replace batteries or such battery-operated or electric hardwired carbon monoxide alarms annually thereafter to insure their continued operability.

(b) The board of fire prevention regulations shall promulgate such regulations as may be necessary to effectuate this section including, but not limited to, the type, installation, location, maintenance and inspectional requirements of carbon monoxide alarms.

(c) Every dwelling, building or structure, occupied in whole or in part for residential purposes, shall, upon sale or transfer of such dwelling, building or structure, be inspected by the head of the fire department for compliance with the requirements of this section.

(d) The state building code may impose stricter carbon monoxide alarm requirements for new construction or dwellings, buildings, or structures substantially renovated so as to constitute the equivalent of new construction. Every such dwelling building or structure, occupied in whole or in part for residential purposes, shall, upon sale or transfer of such dwelling, building or structure, be inspected by the head of the fire department for compliance with the carbon monoxide alarm requirements of the state building code in effect on the date of the issuance of the relevant building permit.

(e) The head of the fire department shall enforce this section.

(f) The department of public health shall promulgate such rules and regulations as may be necessary to effectuate subsection (a) into the state sanitary code as established under section 127A of chapter 111.

**SECTION 5.** Subsection (a) of section 26F 1/2 of chapter 148 of the General Laws, shall take effect on March 31, 2006, except as to any dwelling, building or structure for which the installation of hardwired carbon monoxide alarms is required or owned or operated by the commonwealth or any local housing authority. Said subsection (a) of said section 26F 1/2 of said chapter 148 shall apply to such dwellings, buildings and structures on and after January 1, 2007.

*Approved November 4, 2005.*

## The Regulations: 527 CMR 31.00

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527 CMR 31.00: Carbon Monoxide Alarms (as amended by the Board on 3-20-06)

### Section

- 31.01: Purpose and Scope
- 31.02: Definitions
- 31.03: General Installation Provisions
- 31.04: Specific Installation Requirements
- 31.05: Inspection and Maintenance Requirements
- 31.06: Landlord Installation, Inspection and Maintenance Duties
- 31.07: Carbon Monoxide Alarms Installed in Dwelling Units Inhabited by a Person Who is Hearing Impaired

#### 31.01: Scope and Purpose

The purpose of 527 CMR 31 is to provide minimum requirements for the type, installation, location, maintenance, and inspection of carbon monoxide alarms in every dwelling, building or structure in accordance with the provisions of MGL 148 Section 26F1/2. These regulations shall apply to every dwelling, building or structure including those owned and operated by the Commonwealth, occupied in whole or in part for residential purposes, that:

- (a) contains fossil-fuel burning equipment or
- (b) incorporates enclosed parking within its structure.

#### 31.02: Definitions

As used in 527 CMR 31.00, the following definitions shall have the meanings respectively assigned to them:

Adjacent Spaces: shall mean any area, space, room or dwelling unit located directly next to, below or above any area space, room or dwelling unit that contains fossil fuel burning equipment or enclosed parking.

Centralized Fossil Fuel Burning Equipment: shall mean a central heating plant, hot water heater, a combustion driven generator or fire pump, central laundry equipment, roof mounted air handling unit or similar equipment that emits carbon monoxide as a by-product of combustion and does not allow for air exchange between Centralized Fossil Fuel Burning Equipment and Dwelling Units or common areas.

Carbon Monoxide Alarm Protection: shall mean carbon monoxide alarm protection that may consist of either:

- (a) battery powered in compliance with NFPA 720, 5.2.3 and wireless appliances, or
- (b) ac (alternating current) plug-in with battery back up in accordance with NFPA 720, 5.2.2.6, or
- (c) an ac primary power source with battery back up in compliance with NFPA 720, 5.2.2, or
- (d) low voltage or wireless systems in compliance with NFPA 720, 5.2.4, or
- (e) a Combination Appliance

Such equipment shall operate as a Single Station Alarm Device or Single Station Carbon Monoxide Alarm.

Combination Appliance: shall mean a combination photoelectric smoke detector and carbon monoxide alarm which may be battery or ac (alternating current) powered with battery back up. A combination ionization detector and carbon monoxide alarm which may be battery or ac (alternating current) powered, with battery back up, may be utilized if it is installed not less than 20 ft. from any bathroom or kitchen entryway. Such Combination Appliances shall employ both simulated voice and tone alarm features which clearly distinguishes between carbon monoxide and smoke notification, in accordance with NFPA 720, 5.3.4.

Dwelling Unit: A single unit providing facilities for living and sleeping.

Enclosed Parking: An area or room enclosed within the overall building or structure that is designed or used for the parking of vehicles.

Fossil Fuel Burning Equipment: Any device, apparatus or appliance which is designed or used to consume fuel of any kind which emits carbon monoxide as a by-product of combustion.

Habitable: shall mean that portion of a cellar, basement or attic that is designed, used and furnished for living purposes.

Listed: A device listed by a Nationally Recognized Testing Laboratory meeting the requirements of 527 CMR 49.03 Appendix C and the standards in either IAS/CSA 6.19 or UL 2034 –Single and Multiple Station Carbon Monoxide Alarms, June 2002 Edition or UL 2075 –Gas and Vapor Detector Sensor, November 2004 Edition, as applicable for the installation.

NFPA 720: shall mean National Fire Protection Association (NFPA) 720 entitled “Standard for the Installation of Carbon (CO) warning Equipment in Dwelling Units”, 2005 Edition.

Residential Structures: shall include any dwelling, building or structure classified as use group R-2 through R-5, as defined in 780 CMR and those unclassified occupancies that have the same characteristics as R-2 through R-5. Where there is a dispute regarding Use Group classification of a building, a determination shall be made by the municipal or state building inspector.

Single Station Alarm Device: An assembly that incorporates the detector, the control equipment, and the alarm sounding device in one unit operated from a power source either located in the unit or obtained at the point of installation.

Single Station Carbon Monoxide Alarm: A detector comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

State Building Code: 780 CMR, Massachusetts State Building Code.

### 31.03: General Installation Provisions

1. Any carbon monoxide alarm using an ac (alternating current) primary power source and any other wired carbon monoxide alarm protection equipment shall be installed and maintained in accordance with the Massachusetts Electrical Code, 527 CMR 12 and in accordance with M.G.L. c. 143, s.3L and MGL 141, s. 1A, if applicable.
2. Buildings or structures owned or operated by the Commonwealth or any local housing authority are exempt from the requirements of 527 CMR 31.04 until January 1, 2007.



3. Buildings or structures constructed, renovated or undergo a change in use for which building permits have been issued on or after March 31, 2006, shall comply with any stricter carbon monoxide alarm requirements of The State Building Code, if applicable.
4. The installation of carbon monoxide detectors in accordance with 527 CMR 30, relating to certain Unvented Propane or Natural Gas-Fired Space Heaters, if applicable, shall satisfy the requirements of 527 CMR 31.00 for that level on which such heater is located, provided the installation complies with 527 CMR 31.04(1) (a)and(b).
5. The installation of carbon monoxide detectors in accordance with 248 CMR, The Commonwealth of Massachusetts Fuel Gas and Plumbing Code, if applicable, shall satisfy the requirements of 527 CMR 31.00 for that level on which the direct vented gas appliance is located, provided the installation complies with 527 CMR 31.04(1) (a)and(b).

### 31.04 Specific Installation Provisions

1. Residential Structures: Effective March 31, 2006 every Residential Structure that presently or in the future contains Fossil Fuel Burning Equipment or has enclosed parking shall be equipped, by the owner, landlord or superintendent, with working and Listed Carbon Monoxide Alarm Protection.
  - (a) Carbon Monoxide Alarm Protection shall be located in each level of each Dwelling Unit including Habitable portions of basements, cellars and attics, but not including crawl spaces. The installation of said unit shall be located in accordance with the manufacturer's instructions.
  - (b) When mounting Carbon Monoxide Alarm Protection on a level of a Dwelling Unit with a sleeping area, the alarm shall be installed in the immediate vicinity of the sleeping area, not to exceed 10 ft. as measured in any direction from any bedroom door.
  - (c) Alternative Compliance Option: Such Residential Structures, as an alternative to providing Carbon Monoxide Alarm Protection within each level of each Dwelling Unit, may provide protection in the following areas of the structure, if applicable.
    1. Areas or rooms containing Centralized Fossil Fuel Burning Equipment and all Adjacent Spaces: All areas or rooms containing Centralized Fossil Fuel Burning Equipment and adjacent spaces shall employ Carbon Monoxide Alarm Protection meeting UL 2034 or UL 2075, as applicable, using either an ac (alternating current) primary power source with battery back up that meets the requirements of NFPA 720, 5.2.2. or a low voltage or wireless system. Such installation shall be in accordance with the manufacturer's instructions. Such protection shall be monitored in accordance with NFPA 720, 5.3.9. Such method of monitoring is to be determined at the discretion of the building owner. In accordance with NFPA 720, 5.3.9.3 (1) the retransmission of the signal shall be at the discretion of the head of the fire department.
    2. Adjacent Spaces of Enclosed Parking: All Adjacent Spaces of Enclosed Parking shall employ Carbon Monoxide Alarm Protection meeting UL 2034 or UL 2075, as applicable, using either an ac (alternating current) primary power source with battery back up that meets the requirements of NFPA 720, 5.2.2. or low voltage or wireless system. Such protection shall be monitored in accordance with NFPA

720, 5.3.9. Such method of monitoring is to be determined at the discretion of the building owner. In accordance with NFPA 720, 5.3.9.3 (1) the retransmission of the signal shall be at the discretion of the head of the fire department.

3. Carbon Monoxide Alarm Protection shall also be installed in any Dwelling Unit that contains Fossil Fuel Burning Equipment in accordance with 527 CMR 31.04(1)(a) and (b).

(d) Alternative compliance deadline for certain installations

Any owner who intends to meet the requirements of 527 CMR 31.04 by installing either: (1) ac (alternating current) primary power source with battery back up or wired, low voltage, carbon monoxide alarm protection or (2) the Alternative Compliance Option of 527 CMR 31.04 (1)(c), shall not be required to complete such installation until 1-1-07 if said owner provides written notification of such intent to the head of the fire department by 5-15-06. The submission of such notification shall be deemed to be the consent by the owner to the future inspection of the subject building by the head of the fire department to determine compliance. Installation of carbon monoxide alarm protection pursuant to 527 CMR 31.04(1)(d) may be allowed notwithstanding the late filing of the written notification, only upon the approval of the head of the fire department who may require temporary carbon monoxide alarm protection pending the completion of installation.

2. Other Transient Residential and Institutional Structures Required to have Hard-Wired Carbon Monoxide Alarm Protection by January 1, 2007.

(a) Reserved

31.05: Inspection and Maintenance Requirements

1. The head of the fire department or designee shall enforce the provisions of 527 CMR 31.00, including the inspection for conformance with the carbon monoxide alarm requirements, upon sale or transfer of such dwelling, building or structure used in whole or in part for residential purposes.

31.06 Landlord Installation, Inspection and Maintenance Duties

1. Every owner, superintendent, or landlord shall, at a minimum, maintain, test, repair, or replace, if necessary, every carbon monoxide alarm upon renewal of any lease term for any dwelling unit or on an annual basis, whichever is more frequent. All common areas shall be inspected annually. All carbon monoxide alarm batteries shall be replaced, on an annual basis by the owner, landlord or superintendent.

Exception: Low voltage system batteries shall be maintained in accordance with applicable sections of NFPA 720.

31.07 Carbon Monoxide Alarms Installed in Dwelling Units Inhabited by a Persons Who are Hearing Impaired

Every owner, superintendent, or landlord having control of any dwelling unit inhabited by a person who is hearing impaired, shall comply with any carbon monoxide provisions, if applicable, established by the Architectural Access Board pursuant to 521 CMR.

REGULATORY AUTHORITY

MGL c. 148, §§ 26F1/2, 28

EFF. 3-22-06

# Carbon Monoxide

Winter Storm Warning!

• **Poisonous**

*Winter snows can create drifts that block exhaust vents, forcing Carbon Monoxide gas (CO) to back-up into your home. High efficiency appliances and those with power-vent blowers by definition waste less heat, so the exhaust air temperature is very low. Often it is too low to melt snow in a plugged exhaust pipe or vent. Keep sidewall and direct vents clear of obstructions, drifting snow and bushes to provide proper ventilation.*

• **Odorless**

Hundreds of people accidentally die 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), carbon monoxide is the number one cause of poisoning deaths in the U.S.

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

• **Colorless**

**SYMPTOMS** of Carbon Monoxide 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

• **Tasteless**

At higher levels, CO exposure can cause:

- unconsciousness
- death

What to do if you suspect CO EXPOSURE;

- Get out of the house and get fresh air.
- Call the fire department from a neighbor's house.
- If you have symptoms, seek medical help immediately.

(over)



## **FireFACTORS**

Office of the State Fire Marshal  
Department of Fire Services

PO Box 1025, State Road • Stow, Massachusetts 01775 • (978) 567-3300 • [www.mass.gov/dfs](http://www.mass.gov/dfs)

<ul style="list-style-type: none"> <li>• <b>Poisonous</b></li> <li>• <b>Odorless</b></li> </ul>	<p><b>PROTECT</b> your family:</p> <ul style="list-style-type: none"> <li>• Install Carbon Monoxide detectors in your home.</li> <li>• Make sure that any detector you purchase is approved and certified by a nationally recognized testing institute, such as Underwriters Laboratory (UL).</li> <li>• Follow installation instructions carefully.</li> <li>• Locate CO detectors near bedrooms so family members will awaken at night.</li> <li>• Place them where people spend most of their time, where they will be heard, and where they can be seen.</li> <li>• Do not place a CO detector in a garage, furnace room, near the stove or fireplace.</li> <li>• Detectors 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.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Colorless</b></li> <li>• <b>Tasteless</b></li> </ul>	<p>If appliances that burn fuel are properly maintained and used, the amount of CO produced is usually not hazardous.</p> <p>Read and follow the manufacturer's instructions that come with fuel-burning devices.</p> <p><b><i>However, if appliances are not working properly or are used incorrectly, dangerous levels of CO can result.</i></b></p> <ul style="list-style-type: none"> <li>• Have a qualified service technician inspect your appliances yearly, before the heating season.</li> <li>• Check vent pipes, flues and chimneys for leaks or blockages.</li> <li>• Never use a charcoal grill indoors!</li> <li>• Do not use a gas oven to heat your home.</li> <li>• Don't leave a vehicle running inside a garage, even if the door is open, fumes will build up quickly inside the home.</li> <li>• Don't sleep in any room with an un-vented, gas heater.</li> <li>• Never use gasoline-powered engines (generators, chain saws, blowers, weed trimmers, mowers or snow blowers) in enclosed spaces.</li> </ul>

DFS - Oct. '05

### Why Do I Have To Do This?

Carbon monoxide (CO), known as the *Invisible Killer*, is a colorless, odorless, poisonous gas that results from incomplete burning of fuels such as natural gas, propane, oil, wood, coal, and gasoline. Each year many people die from accidental CO poisoning and thousands more are injured. This law was passed to protect all of us from the dangers of carbon monoxide poisoning.

### How Can I Tell if a CO Alarm Is Approved?

CO alarms are approved by an independent testing company such as Underwriters' Laboratories (UL), Underwriter's Laboratory of Canada (ULC), or International Approval Service/Canadian Standards Association (IAS/CSA). Be sure to look for the approval label when buying CO alarms. Most of the CO alarms currently sold in the Commonwealth meet these standards but it is a good idea to check and make sure they meet the standard before you purchase the alarms.

### How Do I Meet the Requirements of the Law?

If you install CO alarms on every habitable level by March 31, 2006 and keep them in good working order you don't have to do anything else to be in compliance with the law. When you sell your home, you must have an inspection and certificate from the local fire department before the sale is final. Contact your local fire department directly – they will know what to do to assist you.

### How Do I Know if I Have CO Poisoning?

The first symptoms of CO poisoning are similar to the flu (but without the fever). They include:

- Headache
- Fatigue
- Shortness of breath
- Nausea
- Dizziness

If you think you have symptoms of carbon monoxide poisoning or your CO alarm is sounding, contact your fire department and leave the building immediately.

For more information about the requirements of the law contact your local fire department or visit the Massachusetts Department of Fire Services website at [www.mass.gov/dfs](http://www.mass.gov/dfs).

## Consumer's Guide

to Massachusetts  
Requirements for

## Carbon Monoxide Alarms



PRESENTED BY:

Department of Fire Services  
P.O. Box 1025, Stow, MA 01775  
P.O. Box 389, Northampton, MA 01060

[www.mass.gov/dfs](http://www.mass.gov/dfs)

# CONSUMER'S GUIDE TO MASSACHUSETTS REQUIREMENTS FOR CARBON MONOXIDE ALARMS

In November 2005, Governor Mitt Romney signed "Nicole's Law" which places certain requirements on owners of all residential properties to install and maintain carbon monoxide (CO) alarms. The Board of Fire Prevention Regulations has developed the regulations (527 CMR 31.00) establishing the specific requirements of the law including the type, location, maintenance and inspection requirements for the alarms.

## Who Is Impacted by this Law?

Generally speaking anyone who owns residential property regardless of size (i.e., 1- & 2-family homes, multi-family buildings, apartments, condominiums and townhouses, etc.) that contains fossil burning fuel equipment (i.e., oil, gas, wood, coal, etc.) OR contains enclosed parking (i.e., attached or enclosed garage) in Massachusetts, is required to install CO alarms by March 31, 2006. In certain limited instances (see below), the installation requirements are deferred until January 1, 2007.

## What Do I Have to Do?

Install CO alarms on every level of your home except for basements and attics that do not have habitable living spaces (i.e., family rooms, dens, etc.) by March 31, 2006.

## What Kinds of CO Alarms Are Allowed?

There are several types of alarms that are allowed; they include:

- Battery powered with battery monitoring;
- Plug-in (AC powered) units with battery backup;

- AC primary power (hard-wired – usually involves hiring an electrician) with battery backup;
- Low-voltage or wireless alarms; and
- Qualified combination smoke detectors and CO alarms.

## What Are Qualified Combination Detectors and Alarms?

Acceptable combination smoke detectors and carbon monoxide alarms must have simulated voice and tone alarms that clearly distinguish between the two types of emergencies. If you have questions about various types of smoke detectors, contact your local fire department.

## What Am I Required to Do if I'm a Landlord?

Landlords must install CO alarms in each dwelling unit. Landlords also must inspect, test and maintain the CO alarms at least once a year or at the beginning of any rental period (such as lease renewal). Batteries are required to be replaced once a year. Tenants should report any problems with alarms to the landlord immediately and learn to recognize the difference between the smoke detector and the carbon monoxide alarm.

## What Are Alternative Compliance Options?

The regulation allows for alternative compliance options that may be more practical for larger buildings with multiple dwelling units that contain minimal or no sources of CO inside the individual units. The option allows owners to target the CO alarm protection in only those areas

(i.e., rooms that contain boilers, hot water heaters, central laundry areas and all adjacent spaces, in addition to enclosed parking areas) that could be potential sources of the CO. This CO protection option requires hard-wiring or low-voltage wiring, monitoring (i.e., by an alarm company) and certain signal transmission requirements.

## What Are the Limited Instances Where I Don't Have to Install CO Alarms until January 1, 2007?

Owners of residential buildings that notify the local fire department and choose the alternative compliance option and buildings owned by the Commonwealth of Massachusetts (i.e., public housing units) will not be required to install CO alarms until January 1, 2007.

## Where Do I Have To Put These CO Alarms?

In most residences, carbon monoxide alarms are required to be located on every level of a home or dwelling unit including habitable portions of basements and attics. On levels with sleeping areas the alarms must be placed within ten feet of the bedroom doors.

CO alarms do not go inside garages, but in the adjacent living areas.

## When Do I Have to Install CO Alarms?

Most residences are required to install CO alarms by March 31, 2006. After that date anyone who sells their property will be required to have an inspection by the fire department prior to the sale or transfer of their property.