

Order 292-04/05

Given first reading: 6/6/05

Public Hearing & Passage 6/20/05 9-0

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CITY OF PORTLAND
IN THE CITY COUNCIL

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**AMENDMENT TO PORTLAND CITY CODE
ARTICLE III. FIRE ALARM SYSTEMS
§2.5-25 THROUGH §2.5-32**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORTLAND, MAINE IN THE CITY COUNCIL ASSEMBLED AS FOLLOWS:

1. That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-25 be amended as follows:

Sec. 2.5-25. Definitions.

For purposes of this article, the following definitions shall apply unless the context clearly implies otherwise:

Dispatch Center (Also known as the Public Safety Answering Point "PSAP") means any place utilized by the City of Portland for the receipt, monitoring or dispatching of alarms.

Alarm number means any number assigned by the fire chief to a building which is connected by a firemaster box-alarm system to an approved private central station.

Alarm user means any person whose building is connected to either the ~~communications-center~~ Dispatch Center of the City of Portland fire department or an approved private central station.

Approved private central station means any privately operated message monitoring service which is approved by Underwriters' Laboratories, Incorporated, ~~or the Factory Mutual Insurance Company~~ or as otherwise approved by the Fire Chief.

False alarm means any signal which is not in response to heat, smoke or fire requiring an immediate response by the fire department. "False alarm" includes signals emitted by a negligently activated alarm system, or by an alarm system deliberately activated when an immediate response by the fire

department is not required, or by a malfunctioning alarm system. However, "false alarm" does not include signals emitted by an alarm system activated by unusually severe weather conditions, or other cause beyond the control of the alarm user. In case of any dispute, it shall be the burden of the alarm user to demonstrate to the satisfaction of the ~~fire chief~~Fire Chief that an alarm signal was not a "false alarm."

~~Fire chief~~Fire Chief means the chief of the City of Portland fire department or his authorized representative or designee.

Master box alarm system means any mechanism or device, including protective signaling systems, designed for the detection of heat, smoke or fire requiring an immediate response by the fire department and which automatically emits a signal to the Dispatch Center~~an external receiver~~.

Person means any individual, firm or corporation.

2. That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-26 be amended as follows:

Sec. 2.5-26. Certain master box connections required.

The following buildings, as classified by the NFPA 101 Life Safety Code, 1997 edition, shall be connected by master box alarm system to either the ~~communications center~~Dispatch Center ~~of the fire department~~ or an approved private central station:

(a) *New and existing buildings:*

- (1) Places of assembly (classes A and B);
- (2) ~~Schools~~Educational facilities;
- (3) Child day-care facilities (more than 12 children under the age of 16);
- (4) ~~Hospitals~~Health care facilities;
- (5) Nursing homes;
- (6) ~~Mentally retarded care institutions~~Residential board and care facilities;
- (7) Detention and correctional occupancies;

- (8) Hotels, ~~and~~ motels and dormitories;
- (9) Apartments for the elderly (12 or more units);
- (10) Mercantile occupancies (class A and B);
- (11) Industrial occupancies ~~(high hazard contents)~~;
- (12) High-rise buildings (6 or more stories or 75 feet or more in height, whichever is less).;
- (13) Storage buildings containing high hazard contents;
- (14) Special structures as determined by the Fire Chief.

(b) *New buildings only:*

- (1) Residential occupancies (20 or more units).

New buildings shall be connected prior to the issuance of any certificate of occupancy. Existing buildings shall be connected within eighteen (18) months of the effective date of this article, provided, however, that the ~~fire chief~~ Fire Chief may, in writing, grant up to a six-month extension upon a clear showing of unusual practical difficulty or undue financial hardship.

Each master box alarm system shall be installed, maintained, inspected and tested in accordance with all applicable codes and regulations. Each alarm user shall, prior to occupancy ~~upon request of the fire chief~~ Fire Chief, produce satisfactory evidence of compliance with this paragraph to the Fire Chief.

3. That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-27 be amended as follows:

Sec. 2.5-27. Master box connections to the ~~communications center~~ Dispatch Center.

(a) *New connections.* No buildings, other than those listed in section 2.5-26 of this article and those which, if new, would be required to connect under subsection (b) thereof shall, after

the effective date hereof, be permitted to connect by master box alarm system to the ~~communications center~~Dispatch Center ~~of the fire department~~. Any person eligible to make a connection hereunder may apply to the ~~fire chief~~Fire Chief on a form to be devised by him for ~~such~~this purpose. Said application shall contain insurance and indemnification requirements as determined by the Fire Chief. Applications shall be acted upon ~~as when completed and received~~, provided, however, that nothing herein shall require the ~~fire chief~~Fire Chief to approve any application or to provide or maintain sufficient capacity for ~~such~~ connections as may otherwise be eligible hereunder. No connection shall be made without prior payment of the new connection and annual maintenance fees prescribed in this section, and unless the ~~fire chief~~Fire Chief first finds that the building to be connected and the alarm system meet all applicable codes and regulations. All connections shall be made by the alarm user under the direction and supervision of the ~~fire chief~~Fire Chief and at the alarm user's expense, except that final connection to the ~~communication~~Dispatch Center ~~of the fire department~~ shall be made by the ~~fire chief~~Fire Chief. All alarm users shall meet the standards contained within the "Performance Standards for the City of Portland Fire Alarm System 2005" as the same may be amended from time to time.

(b) *Existing connections.* Any alarm user having an existing connection by master box alarm system to the ~~communications center~~Dispatch Center ~~of the fire department~~, whether or not connecting a building listed in section 2.5-26 of this article, shall, within thirty (30) days of written notice by the ~~fire chief~~Fire Chief, elect, in writing whether or not to retain the connection. Any alarm user electing to retain a connection shall simultaneously therewith pay the annual maintenance fee prescribed in this section. Any alarm user electing not to retain a connection, and any alarm user failing to make an election, shall forthwith be notified in writing by the ~~fire chief~~Fire Chief of the impending disconnection of the alarm system, which shall be disconnected by the ~~fire chief~~Fire Chief as soon thereafter as practicable.

(c) *Connection and maintenance fees.* The following fees shall apply to each ~~master box~~fire alarm system connected to the ~~communications center~~Dispatch Center ~~of the fire department~~:

- (1) New connection fee \$500.00
- (2) Annual maintenance fee 225.00

Except that for each
additional alarm system
at the same location 100.00

First-time payments of the annual maintenance fee shall be prorated over the number of months, including any fraction thereof, remaining between the date of payment and the following June thirtieth, provided, however, that in no case shall the fee be reduced to less than half. The annual maintenance fee shall thereafter be due and payable in full on July first. If payment is not made within thirty (30) days thereafter, the alarm user shall forthwith be notified in writing by the ~~fire chief~~Fire Chief of the impending disconnection of the alarm system, which shall be disconnected by the Fire Chief as soon thereafter as practicable.~~of all charges due. The charges shall be payable to the city within thirty (30) days of the date of notice.~~ Any unpaid charges assessed under this section shall be enforceable by lien against the property serviced by the alarm and shall be collected pursuant to section 1-16 of this Code.

(d) *Reconnections.* Any ~~master box~~fire alarm system disconnected pursuant to subsection (b) of this section shall not be reconnected without prior payment of the annual maintenance fee prescribed in this section and a reconnection fee of ~~One Hundredseventy-five~~ dollars (~~\$10075.00~~), except that if reconnection is not made within thirty (30) days after disconnection, the reconnection fee shall be the same as the new connection fee prescribed in this section. Any alarm system disconnected at the request of the alarm user for purposes of inspection, testing or repair shall be reconnected up to three (3) times in any year at no additional charge, after which, however, the alarm system shall not be reconnected without prior payment of a reconnection fee of ~~fiftyone hundred~~ dollars (~~\$10050.00~~).

4. *That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-28 be amended as follows:*

Sec. 2.5-28. Central station alarm number assignments.

All alarm users hereunder shall meet the standards contained within the "Performance Standards for the City of Portland Fire Alarm System 2005" as the same may be amended from time to time.

(a) *New assignments.* Any approved private central station may apply to the ~~fire chief~~Fire Chief on a form to be devised by

him for new alarm number assignments, whether or not for buildings listed in section 2.5-26 of this article. Said application shall contain insurance and indemnification requirements as determined by the Fire Chief. Applications shall be acted upon ~~as when~~ completed and received, provided, however, that nothing herein shall require the ~~fire chief~~ Fire Chief to approve any application or to provide or maintain sufficient capacity for such assignments ~~as may otherwise be eligible hereunder~~. No assignment shall be made without prior payment of the new assignment and annual maintenance fees prescribed in this section, and unless the ~~fire chief~~ Fire Chief first finds that the central station meets all applicable operating requirements.

(b) *Existing assignments.* Any approved private central station having existing alarm number assignments, whether or not for buildings listed in section 2.5-26 of this article, shall, within thirty (30) days of written notice by the ~~fire chief~~ Fire Chief, elect in writing whether or not to retain any or all of the assignments. Any central station electing to retain any assignment shall simultaneously therewith pay the annual maintenance fee prescribed in this section. Any central station electing not to retain any assignment, and any central station failing to make an election, shall forthwith be notified in writing by the ~~fire chief~~ Fire Chief of the impending recall of the alarm number, which shall be recalled as soon thereafter as practicable.

(c) *Assignment and maintenance fees.* The following fees shall apply to each approved private central station alarm number assignment:

- (1) New assignment fee \$100~~15~~.00
- (2) Annual maintenance fee 35~~50~~.00

First-time payments of the annual maintenance fee shall be prorated over the number of months, including any fraction thereof, remaining between the date of the payment and the following June thirtieth, provided, however, that in no case shall the fee be reduced to less than half. The annual maintenance fee shall thereafter be due and payable in full on July first. If payment is not made within thirty (30) days thereafter, the central station shall forthwith be notified in writing by the ~~fire chief~~ Fire Chief of the impending recall of the alarm number, which shall be recalled as soon thereafter as practicable.

(d) *Reassignments.* Any alarm number recalled pursuant to subsection (b) or (c) of this section shall not be reassigned to the central station without prior payment of the maintenance fee prescribed in this section and a reassignment fee of Fifty five dollars (\$505.00), except that if reassignment is not made within thirty (30) days after recall, the reassignment fee shall be the same as the new assignment fee prescribed in this section.

5. That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-29 be amended as follows:

Sec. 2.5-29. False alarm penalties.

(a) *First and second responses.* For the first and second responses by the fire department to a false alarm within any fiscal year, the ~~fire chief~~Fire Chief shall give written notice of the false alarm to the alarm user within three (3) days.

(b) *Third response.* For the third response by the fire department to a false alarm within any fiscal year, the ~~fire chief~~Fire Chief shall give written notice of the false alarm to the alarm user within three (3) days, and the alarm user shall file a written report with the chief within three (3) days thereafter stating the cause of the false alarm, if known, and describing corrective action taken, if any.

(c) *Fourth, fifth and sixth responses.* For the fourth, fifth and sixth responses to a false alarm by the fire department within any fiscal year, the alarm user shall, upon demand, pay a penalty of two hundred dollars (\$200.00) per instance and shall, in the case of any equipment failure, file with the ~~fire chief~~Fire Chief within three (3) days of notice to do so a signed statement by a qualified private alarm agent that the alarm system has been inspected and is in proper working order. In the case of human error or other cause, the alarm user shall file a written report with the ~~fire chief~~Fire Chief describing corrective action taken, if any.

(d) *Seventh and subsequent responses.* For the seventh and subsequent responses by the fire department to a false alarm within any fiscal year, the alarm user shall, upon demand, pay a penalty of three hundred and fifty dollars (\$350.00).

(e) *Written notice deemed complete.* Written notice by the ~~fire chief~~Fire Chief shall be complete upon leaving such notice

at or in the property at the time of response by the fire department or by mailing such notice within three (3) days by first class mail. ~~"Chief" shall include his authorized designee.~~

(f) *Fiscal year.* Fiscal year as used herein shall mean July 1 through June 30 of each year.

6. *That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-30 be amended as follows:*

Sec. 2.5-30. Inspections by ~~fire chief~~Fire Chief/Evidence by the Property Owner.

The ~~fire chief~~Fire Chief may inspect or cause to be inspected any master box alarm system or any building connected thereby at all reasonable times to ensure compliance with the provisions of this article.

At the time of annual maintenance fee payment~~On no less than an annual basis~~, the property owner shall provide to the ~~fire chief~~Fire Chief evidence from a certified alarm testing or servicing company that the fire alarms servicing any building for which such alarms are required are in proper working order.

7. *That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-31 be amended as follows:*

Sec. 2.5-31. Rules and regulations.

The ~~fire chief~~Fire Chief may promulgate all reasonable rules and regulations not inconsistent with this article to carry out the purposes and provisions hereof. Such rules and regulations shall be in writing and shall take effect no less than thirty (30) days following the date of issuance unless sooner suspended by the city council.

8. That Chapter 2.5 of the Portland City Code (Fire Alarm Systems), §2.5-32 be amended as follows:

Sec. 2.5-32. Violations.

A violation of any provision of this article, including the failure to pay any false alarm penalty, shall be punishable as provided in section 1-15 of this Code.

This article may be enforced by the ~~fire-chief~~Fire Chief or his or her designee through the Uniform Summons and Complaint process.

In addition to the process set forth above, when the chief of the fire department, in his or her sole discretion, determines that the property owner has failed to take action to correct a faulty fire alarm system within four hours of being notified of its deficiency, the chief shall have the authority, in person or through agents, to enter onto any property to have fire protection equipment repaired. The ~~fire-chief~~Fire Chief shall cause the condition to be corrected and shall send a notice of any action taken to correct an unsafe condition and the charges for the work done to the owner or the owner's authorized representative. The charges shall be payable to the city within thirty (30) days of the date of the notice. Any unpaid charges assessed under this section shall be enforceable by lien for the benefit of the city and shall be collected pursuant to section 1-16 of this Code.

PORTLAND, MAINE FIRE DEPARTMENT RULES AND REGULATIONS (2005)
FOR MASTER BOX CONNECTIONS TO MUNICIPAL SYSTEM

a. For Master Box Connections To Municipal System

The following Rules and Regulations are promulgated pursuant to Section 2.5-31 of the Portland City Code and shall govern all connections of master box alarm systems to the communications center of the Fire Department:

1. Master boxes shall be new “Gamewell” boxes, type number M34-72, as the ~~Director of Communications~~ **Fire Chief** may direct. No shunt boxes or systems will be permitted. Boxes shall be incapable of being activated from the outside.
2. Code numbers and timing will be assigned **by the Fire Chief** upon receipt of a complete application for service.
3. Master ~~B~~boxes shall be installed in accordance with modern standards and practices and NFPA requirements and shall conform to NFPA Pamphlet 1221. Boxes shall be located inside the building, adjacent to the fire alarm panel.
4. Any building connected by a master box to the municipal system shall be provided with a Knox Box ~~and equipped with a City lock number (25460, mounted outside and adjacent to the main entrance to the building, unless the building is accessible 24 hours a day without the need for forcible entry.~~ Building and fire alarm panel keys shall be kept ~~by the owner~~ in the box.
5. The auxiliary alarm system shall be so arranged that one master box does not serve more than 100,000 square feet of total fire area. Additional boxes will be required for any portion greater than 100,000 square feet.
6. A separate master box shall be provided for each building in a group of buildings, each with its own interior system **or a DETG electronic master box.**
7. All keys to the master box shall be turned over to the ~~Director of Communications~~ **Fire Chief** after work has been completed and the box is placed in service with the City.
8. Auxiliary system equipment shall be of a type approved by the ~~Director of Communications~~ **Fire Chief**. A detailed description of equipment and operational functions shall be submitted to the ~~Fire Chief~~ **Director of Communications** **Fire Chief** prior to installation or connection to the municipal system.
9. Installation of interior or auxiliary equipment shall be in accordance with modern standards and practices and shall be approved by the ~~Director of Communications~~ **Fire Chief**. All wiring shall be in rigid metallic conduit or metallic tubing.
10. All equipment shall be made available for testing and/or inspection when required by the ~~Director of Communications~~ **Fire Chief**.
11. Contractors shall contact the ~~Director of Communications~~ **Fire Chief** prior to starting work and shall obtain approval of locations and all equipment necessary to connect to the municipal system.
12. All outside wiring shall be in rigid or nonmetallic conduit.

13. No municipal circuit conductors shall be less than #12 gauge wire unless in cable form. All cable shall meet IMSA specifications A or B for conduit, duct work, or aerial work. All installations shall be installed with proper hardware as required. All cables shall be of not less than 3 pair except where line wire is approved by the ~~Fire Chief~~ ~~Director of Communications~~ ~~Fire Chief~~. Any system requiring a riser pole connection shall be in rigid conduit. ~~If less than 500 feet, a minimum of 2-inch, if in excess of 500 feet.~~ All work from riser pole or entrance shall be in conduit and marked with tags at specified locations, or painted red. Tags shall read "DO NOT TOUCH – FIRE ALARM CONNECTIONS". Cable shall be used from riser pole direct to master box without splices. If service is from direct attachment to the building, a weatherhead, and ¾-inch rigid conduit. A solid anchor shall be provided and installed by the Contractor to the specifications of the ~~Director of Communications~~ ~~Fire Chief~~ ~~Fire Chief~~.
14. All connections of master boxes shall include lightning protection. BFD arrestor #284C or a TII arrester are types acceptable unless otherwise specified for the installation. An eight-foot by 5/8-inch ground rod shall be connected with a #8 gauge wire to a properly ground protection device for all overhead service connections. An interior master box is to be connected to a #10 gauge ground wire connected in common with the interior fire alarm system ground wire. ~~The ground wire shall be connected to a properly driven ground rod or to an approved source.~~ A tag shall be attached at the ground source stating "DO NOT TOUCH – FIRE ALARM CONNECTION". An approved alternate source is the cold water pipe provided the water meter is jumpered with a #8 gauge copper wire properly connected to each side of the meter.
15. All joints or connections shall be in pull boxes or terminal boxes. Any boxes ~~c~~Containing municipal circuits shall be painted red.
16. Absolutely no connection~~ed~~ shall be made to the municipal circuits except by City Fire Alarm Technicians.
17. No work shall be done on any sprinkler system or fire detection system tied to the City without first notifying the ~~Dispatch Center~~ ~~Fire Alarm Office~~ to prevent false alarms. (Telephone: - 874-8576).
18. Each internal alarm system shall have a supervised municipal DISCONNECT SWITCH or a key switch in an electronic box. When shut off, a supervisory bell and light shall activate. If the alarm panel is not in a supervised area, remote annunciation of the bell and light shall be placed in a supervised area.
19. Connections to buildings, if from an aerial service, shall meet height requirements, as set by the National Electric Code for ground clearance.
20. Any building having a fire alarm system with pull stations that are not connected to the municipal system shall have a sign permanently attached above each pull station stating, "ALARM NOT CONNECTED TO MUNICIPAL SYSTEM".
21. Underground conduit shall be Schedule 80PVC or rigid steel conduit. Risers on utility poles shall have steel conduit from below grade to 10 feet above grade level. Minimum conduit size is 2 inches, unless otherwise required due to length or size of cable to suit the job.
22. All equipment connected with the municipal system shall be of a type and quality and shall be installed such that the dependability of the municipal system shall not be

- endangered. The ~~Fire Chief~~~~Director of Communications~~ shall be the final authority in this regard.
23. Parties whose premises are served by such systems shall submit in writing to the ~~Fire Chief~~~~Fire Chief and the Director of Communications~~ the names of responsible persons who can be contacted in case of trouble with the system.
24. The ~~Director of Communications~~~~Fire Chief~~ may at any time disconnect a master box for non-compliance with these regulations if the operation or dependability of the municipal -system is endangered. The parties involved will be notified, if available, when disconnections are to be made.
25. Parties having connection to the municipal system shall submit in writing a copy of a contract for the testing and maintenance of the internal fire alarm system.
26. Twenty-five (25) percent of all fire alarm devices in the building shall be tested quarterly, such that all devices are tested at least once annually. This requirement shall be included in the contract for the maintenance of the system, unless the system is tested and maintained by qualified in-house staff approved by the ~~Fire Chief~~~~Director of Communications~~. Written record of the testing shall be placed on file in the main fire alarm panel, and shall include:
- a. Date
 - b. Time
 - c. Tested by
 - d. Problems found and corrected by
 - e. Correction Time
 - f. Date
27. The interpretation or application of these Rules and Regulations shall be resolved by the ~~Fire Chief~~~~Director of Communications~~ before the contractor proceeds with the installation.
28. Before final connection of a master box, the system shall be inspected and tested by the ~~City of Portland Electrical~~~~ommunications~~ Division. All internal equipment must be turned on and burnt in for 7 days without a failure before the system will be accepted. Final tests and inspections will be conducted in the company of the installer and representatives of the manufacturer, the ~~Portland~~ Fire Prevention Bureau, and the ~~City of Portland Electrical~~~~ommunications~~ Division.
29. The ~~Director of Communications~~~~Fire Chief~~ may, in writing, waive or vary these regulations upon a showing that (a) strict compliance would be physically impracticable or would create undue financial hardship, and (b) the waiver or variance would not endanger the public health or safety, or "nullify the intent of these Rules and Regulations.
30. After acceptance and prior to occupancy the installer shall prevent an electronic drawing of the fire alarm system in a format to be determined by the fire chief.

All questions concerning the interpretation or application of these Rules and Regulations should be addressed to:

**PORTLAND, MAINE FIRE DEPARTMENT RULES AND REGULATIONS FOR
MASTER BOX CONNECTIONS BY CENTRAL STATIONS**

b. Master Box Connections By Central Stations

The following Rules and Regulations are promulgated pursuant to Section 2.5-31 of the Portland City Code and shall govern all connections of master box alarm systems by central stations;

1. Two independent means shall be provided to retransmit a fire alarm signal received from a protected premise to the City of Portland ~~Dispatch Center-Fire Alarm Office~~.

NOTE: The use of the emergency number 911 does not meet the intent of this standard as a principal means of retransmission.

2. The principal means of transmission of a fire alarm to the ~~Dispatch Center~~municipal alarm office shall be through the use of an existing manual transmitter and/or an electronic/computerized transmitter. The transmitter shall be capable of transmitting any desired number up to 9999. Timing for the transmitter shall be set at one 12 second timing, ~~and~~ set to national standards for spacing and approved by the Fire Chief~~Director of Communications~~.
3. All ~~C~~Scentral ~~S~~tation facilities transmitting alarms to the ~~Dispatch Center~~municipal system shall have either a direct ring down telephone line so designed that no dialing is required from either end or an alternative transmission system otherwise approved by the Fire Chief. ~~The~~Any direct ring down line shall be direct between the Dispatch Center and the central station~~two offices~~ with no third party connections. Termination ~~in~~at the ~~Dispatch Center~~municipal alarm office shall be at a location determined by the Fire Chief~~in the call directors designated for the purpose~~.
4. Any ~~C~~Scentral ~~S~~tation making connection to the Dispatch Center by either means provided in subsection 3 above ~~municipal alarm office~~ will be required to provide all necessary equipment to allow for the receipt of an alarm at the Dispatch Center~~in the dispatch facility, which equipment may to include~~ing but not limited to; an ~~the~~ alarm card ~~in~~and any ~~the~~ digitized/computerized receiving equipment. The company shall be responsible for any -and required any annual fees for upgrade or maintenance of such equipment.
5. When the principal means of transmission is not equipped to permit the Dispatch Center~~municipal, alarm office~~ to acknowledge receipt of each fire alarm signal, both means of transmission required in subsection 1 above shall be used to retransmit.
6. The principal means of transmission shall be supervised so that interruption of the retransmission circuit integrity will result in a trouble signal at the ~~C~~Scentral ~~S~~tation in accordance ~~with either 2-4.1 or 4-2.1.3(b) of the applicable NFPA standard if #71 (Central Station Signaling Systems) most recent edition.~~
7. ~~Runner~~Technical service shall ~~h~~be provided for all premises protected by the ~~C~~Scentral ~~S~~tation if an alarm is retransmitted directly to the Fire Department. Response time shall not exceed .1/2 hour to the scene of the call.
8. All ~~C~~Scentral ~~S~~tations having connection to the ~~City of Portland Fire Alarm Office~~Dispatch Center shall provide a list of their employees doing work on fire alarm systems, for identification purposes. ~~N~~o employee shall work on any system without notifying the ~~C~~Scentral ~~S~~tation of such work and the estimated completion time, and the ~~C~~Scentral ~~S~~tation shall notify the ~~Fire Dispatcher~~Dispatch Center of such work in order to prevent false or unnecessary response to a premises~~+~~ due to an

outside telephone report. The Dispatch Center shall be notified when the work is complete.

9. No ~~C~~entral ~~S~~tation employee shall enter any municipal alarm equipment for any purpose without the presence of Fire Department personnel.
10. All circuits between the ~~Dispatch Center~~municipal system and the central ~~office~~station shall be tested twice (2) daily at a time designated by the ~~Fire Chief~~Director of Communications~~Fire Chief~~. Initiation of the test shall be done by the ~~C~~entral ~~S~~tation with prior warning by telephone before transmission of the test signals. Written records of the test shall be kept on file, to include: Tested by, time and date.
11. All ~~alarm~~box numbers for all premises shall be provided by the ~~Portland Fire Department Communications Division~~Fire Chief. The number should be requested at least fourteen (14) days~~well~~ in advance of final acceptance of all premises." The ~~C~~entral ~~S~~tation shall provide an expected date of final connection at the time of request. Written notification of the company, name, owner, address, type of equipment to be installed, area protected, etc., shall be furnished to the City prior to final connection to the ~~Dispatch Center~~municipal system.
12. All equipment installations shall be in compliance with applicable Rules and Regulations of the Portland Fire Department, as well as all other applicable standards for proper installation of fire alarm equipment.
13. Before final connection of a master box, the system shall be inspected and tested by the Communications Division. ~~M-I~~Internal equipment must be turned on and burnt in for 7 days without a failure before the system will be accepted. Final tests and inspections will be conducted in the company of the installer and representatives of the manufacturer, the ~~Portland~~ Fire Prevention Bureau, and the ~~Fire Chief~~Communications Division.
14. The ~~Fire Chief~~Director of Communications may, in writing, waive or vary these ~~Rules and R~~egulations upon a showing that (a) strict compliance would be physically impracticable or would create undue financial hardship, and (b) the waiver or variance would not endanger the public health or safety, or nullify the intent of these Rules and Regulations.

All questions concerning the interpretation or application of these Rules and Regulations should be addressed to:

Director of CommunicationsFire Chief
Fire Department
City of Portland
380 Congress Street
Portland, Maine 04101
(207) 874-8400

Date of Issuance: _____

Effective Date: _____
(30 days after issuance)

Fire Chief

CITY OF PORTLAND

**PERFORMANCE STANDARDS FOR ~~THE~~
~~CITY OF PORTLAND~~ FIRE ALARM SYSTEMS**

19902005

DEFINITIONS

- FIRE ALARM SYSTEM:** A combination of components consisting of initiating devices, signal devices and control devices all of which either report to or receive a signal from a central control point (FACP).
- HIGH-RISE STRUCTURE:** Any structure ~~six (6) or more stories in height entry or any occupiable story~~ seventy-five (75) feet or more above grade level. Lineal measure shall be from the lowest point of occupiable space to the top floor of the structure as determined by the Fire Chief.
- CLASS "C" FIRE ALARM SYSTEM:** A fire alarm system of the least degree, intended to be used in occupancies where life safety hazards are minimal and the occupant load is low.
- CLASS "B" FIRE ALARM SYSTEM:** A fire alarm system intended to be used where life safety hazards are greater than usual ~~due~~ to higher fire loads, larger structures or greater occupant loads.
- CLASS "A" FIRE ALARM SYSTEM:** A fire alarm system required in all structures where the greatest hazards are present ~~due~~ to fire loads, high occupant density or excessive size. These systems are intended for use where total evacuation is impractical and/or the earliest possible warning is desirable and a need exists for the control of panic.

APPLICATION FOR THE INSTALLATION OF FIRE ALARM EQUIPMENT

CBL: _____

STREET NAME: _____

STREET NO. _____

EXACT LOCATION: (within structure) _____

TYPE OF OCCUPANCY: _____

BUILDING OWNER: _____

INSTALLING CONTRACTOR: _____

CONTRACTOR'S ADDRESS: _____

CONTRACTOR'S TELEPHONE #: _____

CONTRACTOR'S LICENSE #: _____

THE FOLLOWING DOCUMENTS HAVE BEEN PROVIDED WITH THIS APPLICATION:

FLOOR PLANS:	YES: _____	NO: _____
WIRING DIAGRAM:	YES: _____	NO: _____
ANNUNCIATOR DETAILS:	YES: _____	NO: _____
BID SPECIFICATIONS:	YES: _____	NO: _____
EQUIPMENT DATA SHEETS:	YES: _____	NO: _____
BATTERY CALCULATIONS:	YES: _____	NO: _____
SEQUENCE OF OPERATIONS:	YES: _____	NO: _____

THIS IS A NEW APPLICATION: YES: _____ **NO: _____**

THIS IS AN AMENDMENT TO AN EXISTING PERMIT: YES: _____ **NO: _____**

INSERT LANGUAGE RE INSURANCE AND INDEMNITY

PRIOR TO THIS OFFICE ISSUING ANY "CERTIFICATE OF OCCUPANCY", OR ACCEPTING ANY FIRE ALARM SYSTEM, A COMPLETED "FIRE ALARM ACCEPTANCE REPORT" MUST BE RETURNED TO THIS OFFICE, SIGNED BY THE INSTALLING CONTRACTOR. THESE FORMS ARE AVAILABLE AT THE FIRE PREVENTION BUREAU 380 CONGRESS ST.

PERMIT APPLICANT SIGNATURE: _____

DATE: _____

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GENERAL REQUIREMENTS SECTION

SECTION 1.0

- 1.1 All structures, as herein defined, shall be provided with some level of early warning, installed and maintained as detailed by this ordinance and other referenced publications. The intent of this ordinance is to provide early warning to all persons where danger from fire may not be immediately evident, to allow those persons to safely evacuate the area and/or take other appropriate action.
- 1.2 The Fire Prevention Bureau shall review each building permit application for all structures except one (1) and two (2) family homes, to determine the need and extent of fire alarm protection.
- 1.3 The level of protection required shall be based on the size and type of construction, occupancy classification (as defined by NFPA 101) and building contents.
- 1.4 Fire alarm protection may be required in structures not specifically required to be protected by other sections of ~~these code standards~~ to offset exit deficiency, mixed occupancies or other safety situations not otherwise addressed.
- 1.4.1 At the discretion of the Fire Chief, state of the art alternate fire protection systems may be accepted as an equivalent substitute to the fire alarm systems detailed in these standards.
- 1.5 Some level of fire alarm protection shall be required for any of the following occupancies:
 - High rise buildings (any occupancy classification, class "A" system required)
 - High Hazard Occupancies/Public Assemblies
 - Educational Occupancies
 - Health Care Facilities
 - Detention and Correctional Occupancies
 - Hotels and Dormitories
 - Apartment Buildings ~~(10 or more units)~~ (4 or more stories or; 11 or more units)
 - Residential Board and Care Facility
 - Mercantile ~~(class "A" or "B") (class "C" Occupancies)~~
 - Business Occupancies (when occupied by 100-50 or more persons ~~or when more than one level above the LED~~).
 - Industrial Occupancies (when occupied by 50 or more persons or any high hazard classification)
 - Storage (when storage materials are classified as hazardous and the structure is normally occupied)
 - Special Structures (when determined by the Fire Prevention Bureau)
 - Any residential mixed occupancy which includes a residential use.

- 1.6 All equipment used in any one structure shall be of the same manufacturer. All control equipment shall be listed under “UL” category UOJZ as a single control unit. Partial listings shall not be acceptable.
- 1.7 All control equipment must have transient protection devices to comply with UL864 requirements.
- 1.8 The installation of any fire alarm system shall comply with the performance standards for a Type “A”, “B”, or “C” system or as specified or modified by the Fire Prevention Bureau.
- 1.9 The “Performance Standards” for Type “A”, “B”, and “C” systems shall be met unless waived by the Fire Chief in his discretion~~is intended to be used as a guide. Where the greatest level of protection is required, some or all of the features of a Type “A” system would be employed. As the level of danger to life safety reduces, the complexity of the system may be reduced accordingly.~~
- 1.10 All structures requiring a ~~“Type A”~~ fire alarm system shall be provided with a “Knox Box” – make, model and size as determined by the Portland Fire Prevention Bureau. Knox Box shall be located as specified by the fire department. All keys required to operate the fire alarm system shall be placed within this box.
- 1.11 All installations shall comply with the applicable requirements of ~~NFPA 71, NFPA 72-A, B, C, D, E, & F,~~ the National Electrical Code, and the Fire Prevention Bureau ~~Director.~~
- 1.12 All applications for “Fire Alarm Permits” shall be made at the building inspection office on forms provided by the Fire Prevention Bureau. All information requested on the forms shall be completed when applicable to the proposed installation and all supportive documentation provided before the permit can be reviewed.
- 1.13 In addition to the “Fire Alarm Permit”, the installer shall apply for an electrical permit through the building inspection office.
- 1.14 Any application for a Class A or B fire alarm system shall include:
- 1) A copy of the Bid Specification.
 - 2) Complete descriptive data indicating “UL” listings for all system components.
 - 3) A complete description of the sequence of operation.
 - 4) A complete system wiring diagram for all components being connected to the system.
 - 5) Floor plans indicating the placement of all equipment.
 - 6) Annunciator details showing the labeling of all zones.
 - 7) Battery calculations.
- 1.14.1 Any application for a Class C fire alarm system shall include those items listed above as may be required by the Fire Prevention Bureau.
- 1.15 Any additions or modifications from the approved plans will require the submission of an amendment and approval from ~~the~~ fire department.

- 1.16 After the completion of installation, the installing contractor shall provide the Fire Prevention Bureau with a “Fire Alarm Acceptance Report” Per NFPA 72 furnished by this office, before the “Certificate of Occupancy” can be issued.
- 1.17 All fire alarm wiring shall be protected from vandalism by means of electrical mechanical tubing (“EMT”) or metal conduit or concealment within the wall cavity.
- 1.18 Any fire alarm system, including all peripheral devices, shall be maintained and kept operational at all times. Whenever any initiating device is activated and rendered inoperational, it shall be repaired or replaced within twenty-four (24) hours. Any other component needing repair or replacement shall be started within twenty-four (24) hours of disablement and continued until completed as parts are received.
- 1.19 Any alarm system requiring more than one (1) zone shall be provided with individual zone disconnects.
- 1.20 Any class “A” or “B” fire alarm system shall submit CAD drawings of said system electronically.

CONTROL EQUIPMENT

SECTION 2.0

- 2.1 The Fire Alarm Control Panel (FACP) or an annunciator panel shall be placed at the primary point of entry as defined by the Fire Prevention Bureau.
- 2.2 Programmable systems shall be capable of being programmed onsite.
- 2.3 FACP and annunciator panels shall have visual and audio trouble indicators.
- 2.4 All control features shall be placed within the FACP only.
- 2.5 Any FACP which is placed within a ~~concealed~~ space shall have the door leading to that space labeled with the ~~fires words~~ “Fire Alarm Control Panel”. ~~Lettering shall be at least two (2) inches in height and be of a contrasting color.~~
- ~~2.6 The trouble silence switch shall silence the audible signal only.~~
- ~~2.7 The trouble silence switch and the drill switch shall have a ringback feature to assure proper switch position.~~
- 2.86 The tripping of a tamper switch shall activate a trouble condition only and shall not sound the evacuation signals.
- 2.97 The activation of ~~the a~~ Class “A” or “B” fire alarm system shall automatically send a signal to either the “Municipal” fire alarm or an approved private “Central Receiving Station” when required by Municipal Ordinance ~~12.5~~. All “Municipal” Fire Alarm Connections shall be approved by the ~~Director of Communications~~ Fire Chief.
- 2.8 ~~Any structure~~ Each facility is required to have a fire alarm system that provides a firefighter communication system, which, at the discretion of the Fire Chief, may consist a telephone communication system or a state of the art system such as a fixed repeater system. Said system shall be a Motorola Approved Fixed repeater system and shall meet the interface requirements of the City of Portland’s 800 mhz radio system. All such equipment shall be properly installed and regularly maintained by the property owner and be available for inspection and use of the City of Portland 24/7. that meets the criteria listed in 2.11.
- ~~2.102 The Each Firefighter telephone system shall consist of phone jacks located within each stairtower and a minimum of six (5) handsets located within a locked cabinet adjacent to the FACP. The cabinet shall be labeled “Telephone Handsets”. The phone jacks shall be protected against vandalism.~~

~~2.10—A level of emergency radio communications shall be deemed acceptable as approved by the Portland Fire Chief.~~

~~2.11—Facilities granted permits are subject to reassessment at the Fire Chief's discretion.~~

INITIATING DEVICES

SECTION 3.0

- 3.1 Exhaust hood extinguishing systems , halon systems, and standpipe systems shall ~~not~~ be electrically connected to the evacuation system ~~without specific approval from the Fire Prevention Bureau. These systems may be monitored for trouble conditions only.~~
- 3.2 Detection devices located within concealed spaces or spaces deemed inaccessible by the Fire Prevention Bureau shall have an indicator visual to the firefighter from all normally occupied spaces approved by the Fire Prevention Bureau.
- 3.3 Any initiating device not connected to the FACP shall be so labeled.
- ~~3.4 In systems requiring pull stations, the pull stations shall be located at each exit on each floor. Pull stations shall be placed within (10) feet of the exit and along the normal path of travel to reach the exit.~~
- 3.54 All fire alarm pull stations, control equipment, and audio visual equipment shall be red, with the exception that FACP may be of a different color when proper labeling is provided.
- 3.65 All areas which are part of a defined exit system (hallways, stairways, lobbies, etc.) and any areas prone to smoldering fires shall be protected with smoke detectors. All other areas shall be protected with heat detector. The heat detectors shall be rate-of-rise in all cases when practical.
- 3.76 The fusing of any sprinkler head shall activate the fire alarm.
- 3.87 All detection devices shall be protected against radio frequency activation.

SIGNAL DEVICES

SECTION 4.0

- 4.1 The use of bells as a signal device is prohibited in any system.
- 4.2 All class “A” systems shall be provided with two (2) separate signal circuits installed so as to reduce the chances of both being damaged by a single incident.
- 4.3 The activation of the fire alarm system in all high rise occupancies shall sound an audible and visual alarm on the floor of initiation, the two (2) floors above, and the floor below. Whenever any incident requires the activation of a floor connected to other floors by means of an unprotected vertical opening, the alarm activation shall be extended to include all floors so interconnected. If a second zone goes into alarm, then a general evacuation shall be sounded.
- 4.4 All other structures shall sound a general evacuation throughout all floors unless otherwise approved by this office.
- 4.5 All residential occupancies requiring a fire alarm system shall equip each living unit with an approved “mini-horn” connected to the FACP.
- ~~4.6 All audible signals shall sound a tone which is at least 15 dbAs above ambient noise levels. Minimum ambient noise levels shall be as indicated in NFPA 72G, Chapter 3.~~
- 4.7~~6~~ The use of chimes shall be restricted to hospitals, nursing homes, convalescent homes, institutions for the mentally handicapped, and other occupancies where sudden loud noises might cause panic or confusion to the occupants. Any occupancy using chimes as the signal devices must provide a staff which is awake twenty-four (24) hours a day.
- 4.7 The Fire Prevention Bureau may~~shall~~ require multi-lingual voice evacuations systems in all facilities using prerecorded voice evacuation systems. Prerecorded messages shall use a female voice and state the following at the complet~~ioned~~ of a thirty (30) second alert tone:

“Attention Please! The fire alarm system has detected an emergency condition within the building. Please proceed to the nearest stairway and exit the building. Do not use the elevators.”

TYPE A FIRE ALARM SYSTEM PERFORMANCE STANDARDS

SECTION 5.0

5.1 Type "A" Fire Alarm System Performance Standards.

- 1) "UL" Listed
- 2) Meet all applicable NFPA; ~~local,~~local and state standards
- 3) Supervision of all peripheral devices
- 4) Addressable detection devices
- 5) Alarm verification
- 6) Voice communications
- 7) Firefighter telephones and/or radio communications
- 8) Municipal connection
- 9) Separate audio and visual trouble indication
- 10) Individual zone or device disconnect
- 11) Building sSystems status indication ~~(elevators, fans, generators, etc.)~~
- 12) Elevator recall
- 13) Sprinkler activation and zone indication
- 14) History recall
- 15) Prerecorded messages
- 16) Drill switch
- 17) "Knox Box"
- 18) Field programmable
- 19) Two (2) separate signal circuits per floor

~~(For the purpose of this ordinance, a high rise structure is any structure six (6) or more stories in height or from than seventy five (75) feet or more in height. Lineal measure shall be from the lowest point of entry/exit to the uppermost occupiable floor top of the structure as determined by the Fire Chief.)~~

(See Section 1.9)

TYPE B FIRE ALARM SYSTEM PERFORMANCE STANDARDS

SECTION 6.0

6.1 Type “B” fire alarm system performance standards:

- 1) “UL” listing
- 2) Meet all applicable NFPA, local, and state standards
- 3) Zone indication
- 4) Separate audio and visual trouble indication
- 5) Municipal connection capabilities
- 6) Supervision of all peripheral devices
- 7) Sprinkler activation and zone indication (when applicable)
- 8) Individual zone disconnect
- 9) Drill switch

(See Section 1.9)

TYPE C FIRE ALARM SYSTEM PERFORMANCE STANDARDS

SECTION 7.0

7.1 Type “C” fire alarm system performance standards:

- 1) “UL” listed
- 2) Meet all applicable NFPA, local, and state standards
- 3) Zone indication
- 4) Separate audio and visual trouble indication
- 5) Supervision of all peripheral devices
- 6) Sprinkler activation and zone indication (when applicable)

(See Section 1.9)

