



Claremont Fire Department

Sprinkler & Fire Alarm Rules and Regulations

City of Claremont

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SECTION A

Fire Alarm Systems

Administrative Rules

All fire alarm systems installed and any modifications to fire alarm systems in the City of Claremont shall have a permit issued by the Claremont Fire Department and an electrical permit from the Claremont Planning & Development Department before work may begin. All submissions shall include the proper fees, a floor plan showing all alarm devices, panel and annunciator locations, a one line wiring diagram, a list of alarm points if addressable, a legend detailing all symbols used in the plans, battery calculation, annunciator detail showing zone labeling, master box and point of municipal connection (if applicable). The Fire Department will not issue a permit until all the necessary documentation is supplied, reviewed and approved. Work on fire alarm systems must begin within 90 days of approval of application and substantial completion of the system within 180 days or permit for work will be revoked.

The installer shall furnish to the Fire Department an NFPA or other approved certificate certifying that the system has been 100% tested and functions in complete compliance with the system specifications and manufacturers recommendations, including transmission of alarm to fire department or approved central station. The fire alarm systems manufacturers' representative or other qualified personnel shall complete this test. Upon receipt of certification the fire department will schedule an inspection during which the installer shall perform the actual test. The installer shall provide the necessary tools and personnel to perform such tests. The owner or his representative shall be present during these tests.

Additions, modifications and deletions to existing systems shall require a new application and submittal. The Claremont Fire Department assumes no responsibility for the proper operation of any fire alarm system. Fire department personnel may attempt to silence and/or reset the system but are under no obligation to do so. Additionally, after the initial acceptance test it is the sole responsibility of the facility's owner(s) to assure the systems proper operations through required annual testing.

Identification and phone numbers of the property owner or representative shall be properly posted at the Fire Alarm Control Panel (FACP).

Design and Layout

All equipment used shall be of a type approved by the fire chief or his designee. Used or rebuilt equipment shall not be accepted. The Fire Prevention Division of the Claremont Fire Department maintains a list of approved Fire Alarm Control Panels (FACP), no FACP or annunciator panel requiring the use of a code will be permitted. All systems shall be installed in accordance with NFPA 1221, 13, 70, 72, 90A, 92A, 92B, 101, International Fire Code, International Building Code, and NEC 760 unless otherwise specified in these rules and regulations.

All pull boxes, junction boxes and associated covers installed for the installation of the fire alarm system shall be painted RED.

All fire alarm cable shall be in metal raceway, conduit, or mc type cable with red trace.

There shall be no exposed fire alarm cable.

Fire alarm piping or raceways shall not be mounted within 12 inches of roof deck.

End of line resistors in Class B circuits must be installed electrically last beyond any detection devices in the alarm circuit. The location of this end of line device shall be prominently and permanently labeled.

Pull stations shall be wired electrically first in Class B initiation circuits

All dwelling units with a fire alarm system shall have underwriters Laboratories (UL) listed audible device (mini-horn or speaker) connected to the building fire alarm system.

All exterior exit ways and each exit from every level shall be fitted with a manual pull station. These devices shall be immediately adjacent and in the path of travel to a means of egress. Pull stations shall be located within five (5) feet of the exit way.

Detection devices located in concealed areas shall have remote indicators that illuminate when the device is in alarm. Remote indicators shall be located and permanently labeled in a manner acceptable to the fire chief or his designee.

A system smoke detector and two hundred twelve degree Fahrenheit (212 F) sprinkler heads (if sprinkled) shall be installed in all main electrical rooms and elevator equipment rooms.

Notification appliances and/or initiation devices added to a fire alarm system shall be compatible with existing devices and panel and shall provide the same audible sound as existing audible devices.

Fire alarm zones shall cover a maximum of ten thousand (10,000) sq. ft.

All sprinkler zones shall annunciate separately; the main sprinkler zone shall also annunciate separately.

All structures having multiple-tenant access shall be zoned by tenant space (e.g. strip malls shall be zoned by address of each store). Individual spaces shall be identified by a method acceptable to the fire chief or his designee.

All Mercantile Class A, educational occupancies, and structures mandated by NFPA 101 shall require a voice fire alarm system with an approved recorded message and a supervised evacuation microphone public address system.

Where electronically monitored portable fire extinguishers are required in non-sprinkled buildings, the obstruction and high/low pressure sensors shall be wired to a supervisory contact and the removal sensor shall be wired to alarm. [8/8/13]

In buildings protected throughout by an automatic fire sprinkler system, the obstruction, high/low pressure and the removal sensor shall be wired to the supervisory contacts. [8/8/13]

Control Panels and Equipment

All FACP's shall be stand-alone systems. No other building control or security functions shall be allowed in the panel or raceways (e.g. security systems, temperature control).

All systems shall be supervised DC (direct current), battery stand by fire alarm systems. No modification shall be made to fire alarm panels unless Underwriters Laboratories (UL) expressly approves such changes. A separate AC (alternating current) circuit disconnect shall be provided for the fire alarm system with a breaker lock.

The batteries used with the fire alarm control panel shall be capable of operating the panel for sixty (60) hours with a ten (10) minute ring down at the end of a sixty (60) hour period and a 20% safety factor. The calculations used to determine battery capacity shall be presented to the fire department with the application for fire alarm. All stand-by batteries and charging systems shall be supervised.

All FACP's, radio box interface panels and firefighter telephones shall be equipped with CAT-30 key locks.

Manual pull stations shall be dual-action with a CAT-30 key lock reset feature.

All FACP's shall be labeled with a sign "Fire Alarm System: consisting of one (1) inch white lettering on a RED background.

Emergency contact information shall be located inside the FACP. It shall be the responsibility of the property owner or representative to maintain this information.

FACP's shall not be located within any dwelling unit. The location of these panels shall be approved by the fire department chief or his designee.

The FACP shall be mounted to allow the display height to be between sixty to seventy two (60-72) inches.

If the FACP is located in a separate or concealed space, a sign shall be provided on the entrance door(s) or near the concealed space. Such signs shall be RED with WHITE lettering at least one (1) inch in height and shall read "Fire Alarm System."

If the FACP is not clearly visible from the outside of the main entrance of the building an approved annunciator shall be installed.

Upon activation of any alarm device the control panel shall:

- a. Notify the fire department (if applicable).
- b. Sound the appropriate evacuation signals.
- c. Flash the evacuation strobes/lights.
- d. Indicate the zone or most recent device of activation.
- e. Return the elevators to the designated level or if smoke is present to a predetermined alternate floor.
- f. Close all fire doors connected to the fire alarm system.
- g. Release locks on doors as required by the Claremont Fire Department.
- h. Shunt power to audio appliances not associated with the alarm system.

All FACP's shall have a drill switch to permit fire drills without summoning the fire department. Drill switches shall be clearly labeled "Fire Drill." This drill switch shall sound the alarm signal and activate the strobes/lights.

City disconnect switches are not allowed on any FACP's. In panels containing these devices the switches shall be disabled and labeled "Disabled."

All zones in non-addressable control panels shall have RED alarm indicating lamps and YELLOW trouble indicating lamps. Power lamps shall be GREEN. All zone labeling shall be of permanent type and clearly visible from outside the panel as well as on the inside.

All addressable systems using alphanumeric displays shall be, at minimum, eighty (80) character Liquid Crystal Display (LCD) with at least forty (40) characters of usable text. Systems that display only a code or number for an alarm or trouble shall not be accepted.

All FACP's shall have a signal silence switch and a system reset switch. Alarm signals shall have a re-sound provision. This provision shall insure that when a system is "silenced" any subsequent alarms from any other zone shall re-sound the evacuation signals. The master box shall be able to be reset when the alarm system is silenced.

The visual indicators of the evacuation signals in all systems shall not remain illuminated after the alarm silence or alarm acknowledges switch is operated.

A yellow external strobe shall illuminate with any supervisory or trouble signal.

External strobes shall be installed in a location approved by the fire department.

A disable function for the visual indicators shall be permitted on addressable systems. This function will allow them to reactivate upon subsequent alarms.

All fire alarm initiating devices and notification appliances shall be predominantly RED in color and labeled "FIRE." Any alarm or signal devices located in the building which are not part of the fire alarm system shall be painted a color other than red.

Pull stations not connected to a master box or central station shall have a label with a minimum of one quarter (¼) inch lettering; WHITE letters on RED engraved or silk-screened plastic or metal reading:

"LOCAL ALARM ONLY
DIAL 911"

All places of assembly and all structures housing 24 or more living units shall require a voice fire alarm system and must have a supervised microphone public address system.

When a voice system is required and the FACP is not located at the main entrance of the building; a supervised, remote microphone (in an approved cabinet) shall be installed in a location approved by the fire department.

Remote Annunciator

A remote annunciator shall be located at the main entrance of the building strategically mounted to allow unimpaired access and viewing from outside the building at all times. The location of the annunciator shall be approved by the fire department. The color of the housing of this annunciator shall be predominantly RED. All units shall be backlit with incandescent lighting or LCD alpha numeric display. All zone labeling shall be in plain English and indicate the location of the alarm. Zone numbers will not be allowed on the annunciator.

Remote annunciators shall be equipped with a supervised alarm silence and system reset switch. Remote silence and reset switches shall be the momentary operation type and be equipped with a CAT 30 key switch. All keys switches shall be equipped with spring loaded, weather resistant key switch covers.

Remote annunciators shall be equipped with a visual and audible system trouble device. The audible signal transmitted at the annunciator shall be of sufficient volume to be heard at twenty (20) feet. The trouble silence control shall be located at the FACP only.

The location of the FACP shall be permanently labeled on the remote annunciator.

Graphic Annunciator

Graphic annunciators shall be required on all buildings greater than 20,000 sq. ft., or of unusual design, and on all multi-tenant systems. All Graphic annunciators shall be approved by the fire chief or his designee prior to manufacture.

The building graphic shall show the building in phase with the viewer and shall indicate to the viewer in BLACK letters, "YOU ARE HERE."

Building outlines shall be shown in “triple thickness” BLACK. Within the building rooms, corridors, etc. shall be shown in “double thickness”, and lines of lesser significance shall be denoted in “single thickness”. Extraneous building details shall be eliminated to create a clear and concise plan of the building layout depicting only relevant details.

Graphics having significant detail should have stairways highlighted or shaded in BLUE and elevators in YELLOW to bring attention to these areas. All main corridors and point of egress shall also be clearly indicated.

All Fire Department and fire alarm control devices and locations shall be shown in RED symbols and identification.

All zone boundaries shall be detailed using a RED dashed line when applicable.

All permanent hazardous materials locations shall be detailed in RED.

Elevators

All elevators shall be connected to the fire alarm system. Smoke detectors shall be installed in every elevator lobby at each level and in the elevator equipment room. All smoke detection devices shall be connected to the appropriate zone of the building fire alarm system. The elevator recall protocol shall be as follows:

- In the event of an alarm in the building, the elevator will proceed to the ground floor or designated level of the building.
- If the alarm is transmitted from the smoke detector in the elevator lobby of the ground floor or designated level, the elevator will proceed and stop at an alternate floor.
- In the event all lobby smoke detectors are activated, the elevator shall be programmed to open at an alternate floor.

Elevator recall systems shall reset automatically with the resetting of the FACP.

Firefighter telephones shall be installed and be housed in a box located inside the elevator.

All elevators shall be equipped with a firefighters control key #3502.

All occupant emergency telephones located in elevators shall have a permanent sign indicating the building street address and the elevator location.

All elevator emergency telephones shall be connected to a twenty-four (24) hours monitoring service. Dialing 911 shall not be acceptable.

Single Station Smoke Alarm Rules

In addition to the NH State Fire Marshall requirements, Bulletin #2015-01 (<http://www.nh.gov/safety/divisions/firesafety/bulletins/index.html#Year2015>), the AHJ (authority having jurisdiction), City of Claremont Fire Department, requires that all common areas including basements and egresses shall have interconnected smoke alarms for each living unit that has access to such areas. This requirement also includes living units that are located directly above a basement without access.

SECTION B

Testing and Inspection

A qualified technician thoroughly familiar with the design and installation of the system shall perform all system acceptance tests.

Service personnel shall be qualified and experienced in the inspection, testing and maintenance of systems addressed within the scope of this Code. Qualified personnel shall include, but not be limited to, one or more of the following:

1. Personnel who are factory trained and certified for the specific type and brand of system being serviced.
2. Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction.
3. Personnel who are registered, licensed, or certified by a state or local authority to perform service on system addressed within the scope of this Code.
4. Personnel who are employed and qualified by an organization listed by a nationally recognized testing laboratory for the servicing of systems within the scope of this Code.

The installer shall furnish to the Claremont Fire Department an NFPA or other approved certificate certifying that the system has been 100% tested and functions in complete compliance with manufacturer's recommendations.

The test certificate shall be presented to the Claremont Fire Department twenty-four (24) hours prior to scheduling inspections.

Upon receipt of certification, the fire department will schedule an inspection during which the installer shall perform the actual test. The installer shall provide the necessary tools and personnel to perform such tests. The owner or his representative shall be present during these tests.

A failure of inspection shall result in a re-inspection fee of \$300 paid in advance to the Claremont Fire Department prior to any re-inspection.

Annual inspections shall be completed on the included inspection form (Appendix B) or as approved by Claremont Fire Department.

All reports of inspection and testing shall be kept on premises and available for review.

It is the building/business owner's responsibility to provide a copy of all test and inspection reports to the Claremont Fire Department, Fire Prevention Division within thirty (30) days of the test date.

The annual inspection report(s) shall be forwarded to the local AHJ (authority having jurisdiction), the Claremont Fire Department upon request.

SECTION C

Direct Connection to the Claremont Fire Department

All fire alarm systems installed in the City of Claremont shall be required to have a direct connection to the Claremont Fire Department. (Exception: 1 and 2 family dwellings) The cost of the connection to the municipal fire alarm system shall be billed to the installer.

Wired Boxes – (No Longer Permitted Under New Installation as of 4/20/14)

The master fire alarm box shall be of a type approved by the fire chief or his designee.

Used or reconditioned master boxes will not be allowed in the City of Claremont.

All master boxes shall be installed in accordance with NFPA 1221.

Master boxes shall be installed on the outside of the building at the main entrance to the facility. All Master boxes shall be installed to allow for clear and unobstructed view from the street, and in a manner that provides access year round from a walkway or entranceway. The location of all master boxes shall be approved by the fire chief or his designee prior to installation.

All master boxes shall remain completely covered during construction to prevent accidental use.

All master boxes shall have a red indicator lamp over the box with a minimum of a twenty-five (25) watt incandescent bulb or a five (5) watt fluorescent bulb or an LED equivalent that is to be illuminated during the period between dusk to dawn. No 110-volt wiring shall be allowed in the shell of a master box.

All keys to the master box shall be surrendered to the fire chief or his designee after system acceptance. No person other than Claremont Fire Department personnel shall possess these keys.

Wired Box Connections

Absolutely no connections will be made to the City of Claremont fire alarm circuits except by Fire Department personnel.

All extensions of existing fire alarm cable necessary to connect a new service shall be installed by the fire department or an approved contractor. The cost of the extension will be borne by the party taking service. Where an underground service is required, the owner will provide the conduit and cable from the manhole or pole riser to the fire alarm box. All duct cable will be IMSA 19-5 four (4) conductor # 14 gauge solid conductor 600V. Direct burial cable will not be allowed.

Aerial connections shall be made at a minimum of sixteen (16) feet from center of drop to grade level.

Installers shall provide and install a suitable solid eye anchor on the building for the aerial connection.

All conduits shall be a minimum of two (2) inch rigid steel. All sweeps shall be long type steel. All conduit installed above ground shall be steel for the first ten (10) feet above grade level. (PVC schedule 80 may be substituted for steel) Frost couplers shall be installed at each PVC riser.

Wired Box Connections

A solid #12 ground wire shall be run in conduit from the Master Boxes to the street side of the water service and tagged "FIRE DEPARTMENT CONNECTION – DO NOT REMOVE". For underground service connections, the installer shall provide an approved lightning arrester at the point of connection with a solid #12 ground wire run to the master box ground and the box shell shall be grounded to fire alarm ground connection per NFPA 70. If the service connection is a via utility pole riser, the installer shall provide an eight (8) foot rod, aerial terminal box, and approved lightning arrester to the Claremont Fire Department for installation at the pole. All ground wires shall be bare or have green insulation.

The installer shall provide IMSA 19-5 4 conductor # 14 gauge solid 600V from the master box via a direct conduit to the point of aerial connection. No other wiring shall be allowed in the city circuit conduit except the box ground. The conduit shall be installed via the most direct route between the master box and the point of entrance to the building.

All joints and connections shall be in junction boxes. All connections shall be installed on approved terminal strips. All junction boxes containing fire department circuits shall be painted RED and labeled "Fire Department Connection".

All master boxes shall be in the local energy type. No shunt type boxes shall be permitted for use in the City of Claremont.

All code wheels and timing information will be given to the installer after receipt of a properly completed application for the fire alarm system.

Radio Boxes

Installation Requirements for AES Radio Boxes

A Claremont Fire Department fire alarm permit application shall be submitted prior to the installation of any radio box. Easton Electronics, supplier of the radio box software, requires a software fee be paid to them directly before they open or unlock the radio box. Easton Electronics: 4 Pequot Way, Canton MA 02021. Telephone: 800-879-3117. This fee must be paid prior to submitting the fire alarm application and proof of payment in the form of a receipt must be submitted with the fire alarm application. The Claremont Fire Department Fire Prevention Division will provide specifics on the AES IntelliNet radio boxes—specifically, where and how to purchase the device, where to locate the hardware, the location and type of antenna, the assigned alarm code, and any other requirements.

Fire Department Responsibility

Fire Prevention Office personnel and the Fire Alarm Superintendent/Technician (FAS/T) will meet with the building owner and/or fire alarm technician.

The Claremont Fire Department (CFD) will provide ordering information to the subscriber including account number.

Fire department personnel will discuss the type of antenna to be used for the AES radio box and whether an external antenna is required.

Fire department personnel will determine the location of the radio box.

The Claremont FAS/T will review the wiring of AES radio box including the connection between the fire alarm panel, power supply, and antenna with the technician.

The Claremont FAS/T will test the antenna connection before the antenna is connected to the transceiver and the box is powered up.

The Claremont FAS/T will also confirm that the wiring is correct between the alarm panel and the radio box.

The Claremont Fire Department Fire Prevention Division will determine the zone configuration with the contractor

The Claremont Fire Department Fire Alarm Superintendent/Technician will confirm that the AES radio box is properly wired prior to making the antenna connection to the transceiver and powering up the box. Once it has been confirmed that all connections between the fire alarm panel and the radio box are correct, and the power supply is properly wired, the transceiver connection and the antenna connection will be made. CFD will place the radio box online and program the box into the dispatch center/head end.

Owner/Electrician Responsibility

Submit application for fire alarm permit. (The \$50 permit fee is waived for existing master box account holders converting to an AES radio box).

Prior to the installation of the radio box, submit payment in full to Easton Electronics, Inc. for one (1) time software fee:

Easton Electronics, Inc.
4 Pequot Way
Canton, MA 02021
Phone: 1-800-879-3117
Fax: 1-781-828-3719
www.easton-electronics.com

Radio boxes shall be manufactured by AES IntelliNet Corporation. Order and purchase the AES radio box equipped with 60 hour stand by batteries per the Claremont Fire Department requirements.

Radio boxes shall be wall mounted at the main entrance of the building, or internally mounted next to the Fire Alarm Control Panel (FACP) or in a location approved by the fire department.

Radio box interface panels shall be mounted adjacent to the FACP and have its trouble signal wired to the common system trouble. All interface panels shall be equipped with stand-alone power supplies.

All radio boxes shall be labeled with at least 18mm (0.7") laminated labeling tape and shall include the following information:

Account number assigned
Claremont Fire Department
603-542-5156

The location of the AES radio box should be in a dry and climate controlled area and should be at or above street level and close to an outside wall if using the internal rubber-whip antenna. This is the antenna that attaches directly to the box. If using an external antenna, the location can be determined by the Fire Prevention Office, contractor, and building owner.

Wire in the device in accordance with manufacturer's and Claremont Fire Department's requirements.

Antenna System: Mount the antenna vertically just above the roof line away from metal structures or sheet metal. Pipe antenna cable to the radio per UL Edition 9. Use supplied wall mount with short piece of conduit to stand antenna off the side of the building. Attach ground plane to the antenna (the four whiskers). Note: The whip antennas do not have whiskers. Install it on the side of the building

facing the fire department if possible or facing the direction of another radio installation. Connect antenna end of supplied cable; our technician will install connector, if required, at the radio end-antenna cable shall be run in metal conduit. Do not leave extra cable coiled at the J Box. The male to female lightning arrestor should be installed between the bottom of the antenna and cable. If you receive an arrestor with F to F connectors contact the fire department for mounting location. Do not pinch or tightly coil the coax cable. Seal the antenna cable connections with the sealant tape provided.

Antenna cable shall be run in metal conduit from the AES radio box to the weather head on the outside of the building, terminating at the antenna mount location.

When using an outside antenna, the antenna must be grounded properly using the supplied lightning arrestor hardware. Grounding is in accordance with NFPA Codes 70 (Section 810.21) and NFPA 72 if applicable.

At the time of acceptance, AES Radio Box shall not exceed a NETCON level 5. The proper antenna size should be used to meet this standard.

When using an external antenna, ensure that the connection is properly sealed to prevent moisture and condensation build-up.

A means to annunciate radio box fail trouble must be provided on the premises. This shall trip a separate zone available on the FACP or a remote annunciator with key switch or any method approved by the AHJ for connection to contacts on the radio. All equipment shall be UL listed.

Knock outs are ½ inch and are provided on the back and sides only.

Connections: Provide one shielded pair per zone to be transmitted along with spare pair (Max #16 wire) between the FACP and radio. If using Data Tap, a common alarm zone contact must be connected at the FACP. Mount battery/transformer enclosure in close proximity to the radio with conduit. Provide 110vac and Handy Box Duplex from the FACP for the plug in transformer. Terminate connections in the FACP; our technician will terminate the radio end.

It is the responsibility of the service installer/company to obtain the correct relay configurations as requested by the fire department.

The electrician will run four pairs of low voltage wires, as a minimum (4 red wires and 4 black wires) between the fire alarm panel and the AES radio box for zone wiring. This zone wiring shall be #18 shielded wire, 1 pair per zone. This is the minimal configuration for fire alarm monitoring, trouble monitoring and also antenna troubles (monitored locally). This will leave one spare pair of wires for potential future use if needed.

Zone 1 will be used for fire alarms only with red attached to Z1 and black to ground.

Zone 2 will be troubles

Zone 3-6 will be placed in by-pass unless needed for additional zones, and will be programmed accordingly.

Zone 7 will be used for intrusion/burglar alarms.

Zone 8 will be used for panic alarms.

End of line resistor, which is supplied with the AES box, is to be placed at the fire alarm control panel (FACP). The AES radio box monitors this connection from the fire alarm panel to the AES radio box.

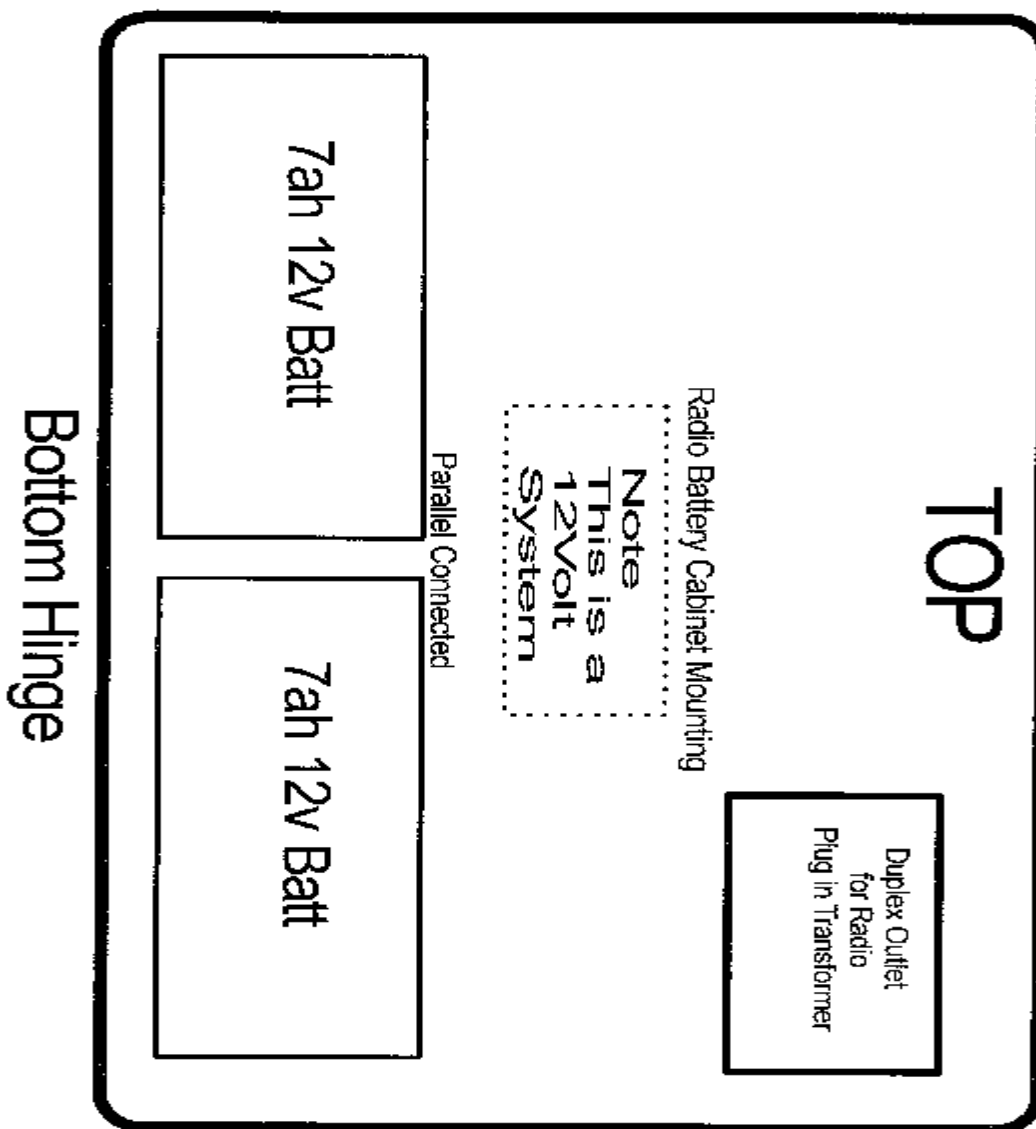
One pair of low-voltage wires need to be run from the AES box J4 antenna cut/trouble terminal back to a trouble zone on the FACP. A resistor is placed at the J4 terminal end in the AES box as the FACP monitors this connection.

The radio box will then be powered up and tested to confirm that the alarm transmits as required.

The supplied battery box is to be mounted in close proximity to AES radio box and the connection between boxes is to be metal conduit. The battery box shall hold two (2) twenty-seven (27) Amp twelve (12) volt batteries for radio box backup power and an AC powered duplex outlet. NOTE: Batteries need to be tested periodically to ensure they are working. (See Diagram)

CAUTION: Do not power up the radio. This unit is programmed and will transmit as soon as it is powered up.

The service installer must be present at start up.



When all of the above have been completed, contact the Claremont Fire Department Fire Prevention Office at 542-7012 or cfrcode@claremontnh.com subject line "Radio Box Start Up" and provide your name, preferred method of contact, radio box location and preferred date for start-up. We will contact you to confirm a start-up date and time.

Central Stations

Central Stations will only be accepted if municipal service cannot be provided.

Two (2) separate, independent means of transmission shall be used from the protected property to a Central Station (i.e. dialer with dedicated line and radio transmitter).

Only fire alarm signals shall be transmitted to the fire department.

Central station shall not re-transmit alarm signals of the monitored system when the system is being maintained or tested unless requested by the fire department or it is included in the technician's procedures.

Transmitting equipment shall reset automatically with the resetting of the fire alarm system.

Completed account form must be submitted to the Communications Division at least 48 hours prior to the inspection.

Fire alarm systems required to be connected to the fire department may be monitored by a central station in accordance with NFPA 72.

All central stations shall be UL (Underwriters Laboratories) listed for either FC or FM fire alarm services.

Central Station Requirements

The central station shall supply and maintain a direct line of communication via a "ring down" line between the central station dispatcher and the fire department dispatcher.

All the fire alarm transmissions to the fire department shall be followed by a back-up phone call via the "ring down" line.

Providing a central station meets the requirements of the Claremont Fire Department, they may apply for an annual permit to monitor fire alarm systems within the city.

All equipment shall be made available for test and inspection when required by the Claremont Fire Department.

Knox Box

The Claremont Fire Department utilizes a "Knox Box" key depository system. All occupancies connected via master box or central station, are required to install a Knox Box on the premises. Knox Boxes can be ordered at www.KnoxBox.com. Knox lockers are required in all occupancies storing or using hazardous materials. All keys and code devices placed in Knox Boxes shall be clearly identified and labeled. Labels indicating the presence of a Knox Box on site shall be placed on all exterior doors. *Only Knox Boxes with an attached, hinged door shall be acceptable in the City of Claremont.*

SECTION D

Checklist for Fire Department Inspections

A fully completed "Application for Installation of Fire Alarm" form shall be on file with the fire department.

A fully completed "Application for Installation of Sprinkler System" form shall be on file with the fire department.

The fire alarm, sprinkler and standpipe systems shall be 100% completed prior to the time that the inspection is scheduled. Under no circumstances shall work be ongoing at the time of inspection.

The 100% inspection certificates shall be provided to the fire department Inspector prior to the inspection.

A minimum of two (2) persons from the installing company shall be present to perform the equipment tests. At least one of the persons shall have been directly involved with the installation and familiar with the system. The later requirement of this paragraph may only be waived by the fire chief or his designee and only in cases of extreme circumstances.

Moveable ceiling panels shall be opened to allow visual inspection of the fire alarm wiring and sprinkler piping during the inspection.

If the building is occupied at the time of inspection, all occupants shall be notified of the inspection PRIOR to the arrival of the fire department.

SECTION E

Sprinkler and Standpipe Systems

System Requirements

The installer of a sprinkler system shall file an application with the Claremont Fire Department Fire Prevention Office with a plans review fee of fifty dollars (\$50) per submittal (See Appendix A).

Construction permits shall automatically become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work recommences, a new permit shall be first obtained. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

All sprinkler systems installed in the City of Claremont shall have a fire alarm permit from the Claremont Fire Department Fire Prevention Division.

A minimum of two sets of working plans and hydraulic calculations shall be submitted to the Claremont Fire Department Fire Prevention Division prior to the installation of the sprinkler or standpipe system. Working plans shall be drawn to an indicated scale and include *all* items detailed in the most recent edition of NFPA 13. Hydraulic calculations shall be prepared on form sheets that include summary sheet, detailed information sheets, and a graph sheet. All hydraulic calculation sheets shall include all items detailed in the most recent edition of NFPA 13. One set of stamped approved plans shall be on site during construction.

The permit application submittal package shall include a completed owner's information certificate, Appendix F.

All plans submitted must be stamped and signed by a NICET Level III technician or higher.

All sprinkler systems installed in the City of Claremont must be installed to meet the criteria set forth by NFPA 13, 13D, and 13R respectively. 13D systems shall not be required to conform to the Claremont Fire Department Sprinkler & Fire Alarm Rules and Regulations. [REVISED 12/19/12]

NFPA 13 D Sprinkler Systems:

1. Require a sprinkler permit.
2. Are not required to be designed by an NICET technician.
3. Will require full plans submittal for review.
4. Will require a final inspection of the installation.

Hydraulic tests shall be witnessed by the Claremont Fire Department. Testing shall be scheduled at least 48 hours in advance.

Acceptance test shall be scheduled at least 48 hours in advance.

A failure of inspection shall result in a re-inspection fee of \$300 paid in advance to the Claremont Fire Department prior to any re-inspection.

All buildings with a sprinkler or standpipe system must have an approved, manual evacuation fire alarm system connected to the fire department through an AES radio box or to an approved central station.

Permits and Inspections shall be required for all of the following:

- All new installations
- Any work or modification to an existing sprinkler system. This includes but is not limited to: arm-overs, head replacements, and moving or relocating sprinkler heads. Any addition to, or expansion of existing systems shall require submission of hydraulic calculations.
- Any repair or modification to the system components and hardware as listed in the most recent edition of NFPA 13 Installation of Sprinkler Systems
- Any installation of clean agent systems, UL 200 and UL 300 systems
- Any installation of fixed fire protection, Commercial hood suppression systems

The Post indicator Valve (PIV) or wall mounted indicator valve and fire department connection shall be installed in a location approved by the AHJ (authority having jurisdiction) and within twenty-five (25) feet of fire truck access and shown on the site plan. These devices shall be clearly visible from the street and be installed on private property.

A post or wall indicating valve with tamper switch shall be provided on all installations. The wall valve shall be mounted between thirty-six to sixty inches (36-60") from ground level unless otherwise approved by the fire department.

A fire hydrant (privately owned or municipal) shall be located no more than one-hundred (100) feet from the fire department connection.

A fire department connection shall be supplied on all sprinkler and standpipe installations. These connections shall consist of a single four-inch (4") Stortz connection on a 30 degree (30°) elbow. Connections must be a minimum of thirty-six inches (36") from all obstructions. All connections shall be identified with a metal sign with raised letters at least one-inch (1") in size and shall identify the type of system and recommended system pressures.

All sprinkler and standpipe systems shall have alarm initiating retarded water flow devices.

All vane flow switches shall have a zero to sixty (0-60) second retard device set to forty-five (45) seconds. All sprinkler and standpipe systems shall have an inspector test valve located at the furthest point from riser and shall be piped to drain to the exterior of the building. (Multiple floors may be gang drained.)

Each sprinkler riser shall be provided with a listed indicating valve in an accessible location.

There shall be no shut off valves on alarm devices.

Each floor shall be zoned separately with a valve connected to an appropriately sized orifice discharging to the exterior of the building or an approved drain. No hose connections shall be allowed.

All valves in the sprinkler system shall have permanent tags indicating the purpose of the device. All valves installed in the system shall be supervised.

If suppression or control valves are located in a separate or concealed space, a sign shall be provided on the entrance door or access panel to the concealed space. The sign shall be red with white lettering at least one-inch (1") in height and shall read "SPRINKLER CONTROL VALVE." All valves and controls shall be readily accessible.

A permanent legend and riser diagram must be placed at the main shut-off valve indicating the location of shut-off valves and inspectors test valves.

All areas of the building must be sprinkled. This includes bathrooms, closets and attics. All sprinkler heads installed in electrical rooms and elevator control rooms shall be two-hundred twelve degree (212°) rated.

All elevator control rooms shall be equipped with a shut off valve with tamper switch located outside of the room.

All fire pumps installed in the City of Claremont shall be installed in accordance with the provisions put forth in the most recent edition of NFPA 20. The operation and status of the building fire pump shall be supervised, on a separate alarm zone for pump running and power failure, including off normal position of the disconnect switch.

A test header shall be provided with all fire pump installations in the City of Claremont. All fire pump systems shall be provided with a test header (or hose valve) which is piped to the exterior of the structure. The site in the vicinity of the test header shall be designed to account for the drainage of water or not less than one-hundred-fifty percent (150%) of the maximum pump drainage capacity.

All fire pumps shall be provided with a back-up source of power approved by the Claremont Fire Department or meet the provisions of NFPA 20 Sec. 9.2-9.3.

All standpipe systems installed in the City of Claremont shall be installed to meet the criteria set forth in the most recent edition of NFPA 14.

All standpipe systems must be installed to a minimum of five-hundred gallons per minute (500 GPM) for the first standpipe, plus two-hundred-fifty gallon per minute (250 GPM) for each additional standpipe.

Standpipes shall have a one-hundred (100) PSI at 500 GPM residual rating at the top of the system.

All standpipe hose outlets shall have a 2 ½" by 1 ½" reducer with a cap and chain. The threads on these devices shall be National Standard Thread.

Supervision of Sprinkler Systems

All sprinkler systems shall have a direct connection to the Claremont Fire Department or a central station approved by the Claremont Fire Department if municipal connection is not available.

Each floor of a sprinkled building shall be zoned separately. (Exception: Two story structures less than 2000 sq. ft. per floor)

All water shut-off devices shall have tamper switches installed and wired for supervisory, which does not alarm the Fire Alarm Control Panel (FACP).

Testing and Inspection

Sprinkler systems shall be inspected and tested as outlined in the most recent addition of NFPA 13R, 13B and 25.

A test certificate for above ground and underground piping shall be presented to the Claremont Fire Department twenty-four (24) hours prior to scheduling inspections.

A qualified technician thoroughly familiar with the design and installation of the system shall perform all system acceptance tests.

A failure of inspection shall result in a re-inspection fee of \$300 paid in advance to the Claremont Fire Department prior to any re-inspection.

Annual inspections shall be completed on the included inspection form (Appendix C) or as approved by Claremont Fire Department.

All reports of inspection and testing shall be kept on premises and available for review.

The annual inspection report(s) shall be forwarded to the local AHJ (authority having jurisdiction), the Claremont Fire Department upon request.

It is the building/business owner's responsibility to provide a copy of all test and inspection reports to the Code Enforcement Captain of the Claremont Fire Department, within 30 days of the test date.

The inspectors test, main drain valves, and all control valves on the sprinkler system shall be operated at least once per year to insure that there is free water flow, adequate pressure and that the supervisory service is operating properly. An internal inspection of the piping shall be performed periodically, but at least every ten (10) years to check for debris build up. If debris build up is discovered, the system shall be flushed and internal inspections shall then be conducted at five (5) year intervals thereafter. Each dry pipe valve shall be cleaned and reset at least once each year. Automatic anti-freeze solution systems and limited area systems that are supplied by a domestic water source and which are not required to provide a test line shall be exempt from the requirements of this section. Certification tags and seals shall be applied to the sprinkler system risers and fire pumps detailing the person or contractor conducting the test and the date of the test.

All fire pumps that supply water to suppression systems and standpipes shall be operated once every thirty (30) days to insure that water is discharged freely from the relief valve and that the system is functional. A yearly test shall be performed in accordance with the criteria put forth in the most recent edition of NFPA 25. Where the suction supply is from public means, the test shall not draw the residual suction pressure at the pump below twenty pounds per square inch (20 lbs. PSI).

Exceptions

Any deviations or exceptions to these rules and regulations must be approved in writing by the Fire Prevention Division prior to acceptance testing of any fire protection system.

SECTION F

Clean Agent Systems

System Requirements

The installer of a clean agent system shall file an application with the Claremont Fire Department Fire Prevention Division with a filing fee of fifty dollars (\$50). See Appendix C for application.

Construction permits shall automatically become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work recommences, a new permit shall be first obtained. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

All clean agent systems installed in the City of Claremont shall have a fire alarm permit from the Claremont Fire Department Fire Prevention Division.

All fire alarm work shall be done according to Claremont Fire Department Fire Alarm Rules and Regulations and the most recent edition of NFPA 72 and 70.

All existing sprinkler protection shall remain unless otherwise protected by a preaction sprinkler system or other approved fire suppression system.

A minimum of two sets of working plans shall be submitted to the Claremont Fire Department Fire Prevention Division prior to the installation of the clean agent system. Working plans shall be drawn to an indicated scale and include *all* items detailed in the most recent edition of NFPA 2001. One set of stamped approved plans shall be on site during construction.

All equipment installed shall carry the appropriate UL listing for the premises to be protected.

All plans submitted must be stamped and signed by a registered fire protection engineer.

A qualified technician thoroughly familiar with the design and installation of the system shall perform all system acceptance tests.

A failure to inspect shall result in a re-inspection fee of \$300 paid in advance to the Claremont Fire Department prior to any re-inspection.

Testing and Inspection

All clean agent systems shall be maintained and inspected in accordance with all applicable codes and adopted standards.

All reports of inspection and testing shall be kept on premises and available for review.

It is the building/business owner's responsibility to provide a copy of all test and inspection reports to the Claremont Fire Department, Fire Prevention Division within 30 days of the test date.

The annual inspection report(s) shall be forwarded to the local AHJ (authority having jurisdiction), the Claremont Fire Department upon request.

Exceptions

Any deviations or exceptions to these rules and regulations must be approved in writing by the Fire Prevention Division prior to acceptance testing of any fire protection system.

SECTION G

Automatic Fire Suppression Systems

System Requirements

The installer of a suppression system shall file an application with the Claremont Fire Department Fire Prevention Division with a filing fee of fifty dollars (\$50). See Appendix C for application.

Construction permits shall automatically become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work recommences, a new permit shall be first obtained. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

All suppression systems installed in the City of Claremont shall have a fire alarm permit from the Claremont Fire Department Fire Prevention Division if applicable. If systems are not connected to a fire alarm system, they shall be equipped with an audible/visual device to indicate system activation.

All fire alarm work shall be done according to Claremont Fire Department Fire Alarm Rules and Regulations and the most recent edition of NFPA 72 and 70.

A minimum of two sets of working plans shall be submitted to the Claremont Fire Department Fire Prevention Division prior to the installation of a suppression system. Working plans shall be drawn to an indicated scale and include *all* items detailed in the most recent edition of the applicable NFPA Standards. One set of stamped approved plans shall be on site during construction. System installation manual and equipment cut sheets shall be submitted with plans.

All equipment installed shall carry the appropriate UL Listing for the premises to be protected.

All plans submitted must be stamped and signed by a registered fire protection engineer.

Dry Chemical Extinguisher Systems: These systems must be installed in accordance with the most recent edition of NFPA 17.

Discharge nozzles shall be listed for their intended use.

Any pre-engineered dry-chem. system shall meet UL 1254 standard.

All kitchens being equipped with a commercial cooking suppression system shall have a K Class or equivalent extinguisher compatible with the agent installed in proximity with the area.

A qualified technician thoroughly familiar with the design and installation of the system shall perform all system acceptance tests.

A failure of inspection shall result in a re-inspection fee of \$300 paid in advance to the Claremont Fire Department prior to any re-inspection.

Testing and Inspection

All commercial cooking suppression systems shall be maintained and inspected in accordance with all applicable codes and adopted standards. (See Appendix D for CFD fire suppression inspection and testing form.)

All reports of inspection and testing shall be kept on premises and available for review.

It is the building/business owner's responsibility to provide a copy of all test and inspection reports to the Claremont Fire Department, Fire Prevention Division within 30 days of the test date.

The annual inspection report(s) shall be forwarded to the local AHJ (authority having jurisdiction), the Claremont Fire Department upon request.

Exceptions

Any deviations or exceptions to these rules and regulations must be approved in writing by the Fire Prevention Division prior to acceptance testing of any fire protection system.

SECTION H

Fire Department Contact Information

Questions and Approvals on:

Fire alarm applications, plans review, inspections and monitoring, Knox boxes and Knox standpipe locking hydrant caps:

Deputy Chief Tom Belaire
100 Broad Street
Claremont NH 03743
PH: 603.542.7012
Fax: 603.542.7028
cfrcode@claremontnh.com

Fire Alarm Supt./Firefighter Tim Vezina
Claremont Fire Department
100 Broad Street
Claremont NH 03743
PH: 603.542.5156
Fax: 603.542.7028
tvezina@claremontnh.com

Questions and Approvals on:

Occupancy requirements, life safety requirements, sprinkler and standpipe systems, HVAC and smoke control systems and certificate of occupancies:

Deputy Chief Tom Belaire
Claremont Fire Department
100 Broad Street
Claremont NH 03743
PH: 603.542.7012
Fax: 603.542.7028
cfrcode@claremontnh.com

SECTION I

Fire Alarm, Sprinkler & Fire Suppression Systems

Fire Alarm System – Appendix A, B, C and D

Sprinkler System – Appendix E, F and G

Fire Suppression System – Appendix H and I



**Claremont Fire Department
Fire Prevention Office**

100 Broad Street
Claremont, New Hampshire 03743
Ph: (603) 542-7012
Fax: (603) 542-7028
Email: cfrcode@claremontnh.com

Appendix A Fire Alarm Application and Instructions

Application must be completed in its entirety and signed by BOTH the installer and the property owner (or owner's agent).

These are areas which require special attention:

- **Objective:**
What is the scope of work being completed by you, the installer, i.e. new system, upgrade to existing system, tenant fit-up, replacing existing devices/FACP.
- **Connection:**
What type of connection?
Claremont Fire Department direct via Wired Box or Radio Box
Central Office Connection: Central Alarm, Honeywell or Other Local System
- **Type of Box:**
Is this a Wired Box or Radio Box?
Is this a new or existing box?
If existing, please provide the box number.

All new fire alarm boxes are required to have a Knox Box (Rapid Entry System). Businesses are NOT allowed to order residential box # 1650 or # 1651. All Knox Box orders MUST include a side-hinged door. Item # 1001 – alert decals and item # 1006 – key tags.

The Fire Alarm Application must be submitted with TWO (2) sets of plans (highlight ALL fire alarm components on plans and drawings).



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Claremont, New Hampshire 03743
Ph: (603) 542-7012
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Email: cfrcode@claremonth.com

Appendix A Fire Alarm/Radio Box Application

CFD USE ONLY
Radio Acct # _____
Date Acct # Issued _____
Proof of Easton payment _____

Business Name: _____

Street Address: _____

Mailing Address: _____

Phone: _____ Business Email: _____

Owner's Name: _____

Owner's Mailing Address: _____

Owner's Cell Phone: _____ Owner's Home Phone: _____

Owner's Email: _____

Business Hours Contact: _____ Title: _____

Contact's Cell: _____ Contact's Email: _____

After Hours Emergency Contact #1

Name: _____ Email: _____

Cell: _____ Home Phone: _____

After Hours Emergency Contact #2

Name: _____ Email: _____

Cell: _____ Home Phone: _____

After Hours Emergency Contact #3

Name: _____ Email: _____

Cell: _____ Home Phone: _____

Should you have a change in staff causing this information to become invalid, please contact the Claremont Fire Department at cfrcode@claremontnh.com with subject line "Fire Alarm Contact Update."

Electrical Permit No. _____ Panel Mfg. _____
 Model No. _____ Number of Stories (incl. basement) _____
 Total Floor Area (Sq. ft.) _____ Type of Occupancy _____

Device	Amount	Device	Amount
Water Flow Switches	_____	Heat Detectors	_____
Low Pressure Switches	_____	Smoke Detectors	_____
Tamper Switches	_____	Duct Detectors	_____
Pull Stations	_____	Horn/Strobes	_____
Speaker/Strobes	_____	Horn Only	_____
Speaker Only	_____	Strobe Only	_____
Mag Door Holders	_____		

Objective: _____

Highlight ALL Fire Alarm Components on Plans and Drawings

Fire Dept. Direct Connection: New _____ Existing Box # _____
 Central Office Connection (Please Indicate Company): _____

The following is to be provided with this application:

Radio Box NETCON Reception Shall be No Higher Than 5 _____
 \$75.00 Per Submittal _____ Annunciator Drawings _____ Knox Box Verification _____
 Plot Plans _____ Battery Load Calculations _____ Floor Plans _____
 One-Line Riser Diagram _____ **If Radio Box, Proof of Easton Electronics Software Fee Payment** _____

Equipment must be installed in accordance with the Claremont Fire Department Rules and Regulations governing fire alarm systems and manufacturer's installation instructions. Application is hereby made for approval for installation or modification of a fire alarm system and/or monitoring connection.

Installer Section

Installer's Name: _____

Installer's Cell Phone: _____

Business Name: _____

Business Street Address: _____

Business City/State/Zip: _____

Business Phone: _____ Fax: _____

Business E-mail: _____

Installer's Signature: _____



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Appendix B Fire Alarm Inspection and Testing Form

Place of Testing

Name: _____ Address: _____

Inspection Company Info

Name: _____
Address: _____
C/S/Z: _____
Inspector: _____
Inspector Cell Phone: _____
Insp. Co. email: _____

Owner Info

Name: _____
Address: _____
C/S/Z: _____
Owner Rep: _____
Rep Phone: _____
Owner/Rep email: _____

Monitored By

Company Name: _____
Contact: _____
Telephone: _____
Monitoring Acct. # or Box #: _____

Service – Submit Form to Fire Prevention

____ New Install
____ Weekly
____ Monthly
____ Quarterly
____ Semi-annually
____ Annually
____ Other (Specify) _____

Type Transmission

____ 100 Mil
____ Digital
____ Other (Specify) _____

Fire Alarm Panel

Panel Manufacturer: _____
Panel Model: _____
Circuit Styles: _____

Software Rev. Date: _____

Last System Service Date _____

Reason for Service _____

Alarm-Initiating Devices and Circuit Information

Quantity

Circuit Style

Manual Stations
Ion Detectors
Photo Detectors
Duct Detectors
Heat Detectors
Water-flow Switches
Supervisory Switches
Other (Specify) _____

Alarm-Initiating Devices and Circuit Information

Quantity

Circuit Style

Bells
Horns
Chimes
Strobes
Speakers
Other (Specify) _____

No. of Alarm Indicating Circuits _____ Are Circuits Supervised? _____ Yes _____ No

Supervisory Signal-Initiating Devices and Circuit Information

Quantity

Circuit Style

Fire Pump Power
Fire Pump Auto Position
Fire Pump/Pump Controller Trouble
Fire Pump Running

_____	_____	Generator In Auto Position
_____	_____	Generator or Controller Trouble
_____	_____	Switch Transfer
_____	_____	Generator Engine Running
_____	_____	Other (Specify) _____

Signaling Line Circuits

Quality and style (see NFPA 72, Table 3-6) of signaling line circuits connected to system

Quantity _____ Style(s) _____

System Power Supplies

a. Primary (Main) Nominal Voltage _____ Amps _____
 Overcurrent Protection Type _____ Amps _____
 Location (Panel Number) _____

b. Secondary (Standby) _____
 Storage Battery Amp-Hr. Rating _____ Calculated capacity to operate system, in hours: _____ 24 _____ 60 _____

Engine-driven generator dedicated to fire alarm system _____

Location of fuel storage _____

Type of Battery

- _____ Dry Cell
- _____ Nickel-Cadmium
- _____ Sealed Lead-Acid
- _____ Lead-Acid
- _____ Other (specify) _____

c. Emergency or standby system used as a backup to primary power supply, instead of using a secondary power supply;

_____ Emergency system described in NFPA 70, Article 700

_____ Legally required standby described in NFPA 70, Article 701

_____ Operational standby system described in NFPA 70, Article 702, which also meets the performance requirements of Article 700 or 701.

System Tests and Inspections

Type	Visual	Functional	Comments
Control Panel	_____	_____	_____

Interface Eq.	_____	_____	_____
Lamps/LED's/Displays	_____	_____	_____
Fuses	_____	_____	_____
Primary Power Supply	_____	_____	_____
Trouble Signals	_____	_____	_____
Disconnect Switches	_____	_____	_____
Ground-Fault Monitoring	_____	_____	_____

Secondary

Power Type	Visual	Functional	Comments
Battery Condition	_____		_____
Load Voltage		_____	_____
Discharge Test		_____	_____
Charger Test		_____	_____
Specific Gravity		_____	_____
Transient Suppressors	_____		_____
Remote Annunciators	_____	_____	_____

Emergency Comm.

Equipment	Visual	Functional	Comments
Phone Set	_____	_____	_____
Off-Hook Indicator	_____	_____	_____
Amplifier(s)	_____	_____	_____
Tone Generator(s)	_____	_____	_____
Call-In Signal	_____	_____	_____
System Performance	_____	_____	_____

Interface Equipment	Visual	Functional	Comments
(Specify)_____	_____	_____	_____
(Specify)_____	_____	_____	_____
(Specify)_____	_____	_____	_____

Special Hazard Systems

(Specify)_____	_____	_____	_____
(Specify)_____	_____	_____	_____

(Specify _____)

Special Procedures:

Comments:

Alarm Initiating Device Test Information

	Number of Devices Tested	Pass/Fail
Pull Stations	_____	_____
Heat Detectors	_____	_____
Smoke Detectors	_____	_____
Duct Detectors	_____	_____
Audible/Visual Units	_____	_____
Audible Units	_____	_____
Visual Units	_____	_____
Door Holders	_____	_____
Comments	_____	_____
	_____	_____
	_____	_____

Sprinkler System Device Information

Flow Switches		Pressure Switches	
Zone/Device	Time	Zone/Device	Alarm Pressure
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Supervisory Switches

Zone/Device	Functional Test
_____	_____
_____	_____
_____	_____
_____	_____

Comments _____

Prior to Any Testing

Notifications Made	Yes	No	To Whom	Time
Monitoring Entity	_____	_____	_____	_____
Building Occupants	_____	_____	_____	_____
Building Management	_____	_____	_____	_____
Other (specify) _____	_____	_____	_____	_____
AHJ (Notified) of any impairments	_____	_____	_____	_____

On/Off Premises Monitoring	Yes	No	Time	Comments
Alarm Signal	_____	_____	_____	_____
Alarm Restoral	_____	_____	_____	_____
Trouble Signal	_____	_____	_____	_____
Supervisory Signal	_____	_____	_____	_____
Supervisory Restoral	_____	_____	_____	_____

Notifications of Testing Completion	Yes	No	To Whom	Time
Building Management	_____	_____	_____	_____
Monitoring Agency	_____	_____	_____	_____
Building Occupants	_____	_____	_____	_____
Other (Specify) _____	_____	_____	_____	_____

The following did not operate correctly: _____

System restored to normal operation: Date: _____ Time: _____

This testing was performed in accordance with applicable NFPA standards.

Name of Technician (Print): _____

Signature: _____

Date: _____ Time: _____

Name of Owner/Representative (Print): _____

Signature: _____

Date: _____ Time: _____



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Appendix C ACCEPTABLE FIRE ALARM CONTROL PANELS

1.	Notifier	NFS-320	Addressable
2.	Notifier	AFP-200	Addressable
3.	Notifier	AFP-400	Addressable
4.	Notifier	SFB-400	Conventional
5.	Notifier	4000	Conventional
6.	Notifier	BE-300	Addressable
7.	Mircom	100 model FA108ku	Conventional
8.	Simplex	4005	Addressable
9.	Mircom	1000	Conventional
10.	Mircom	FX2000	Addressable
11.	Simplex	4100U	Addressable
12.	Silen Knight	IFP 1000	Addressable
13.	Silent Night	IFP 100	Addressable
14.	Silent Night	IFP 50	Addressable
15.	Gamewell/FCI	E3	Addressable
16.	EST	EST 3	Addressable
17.	Simplex 4006		Conventional
18.	Edwards	FSC	Conventional
19.	Advanced Fire Systems	AX Series	Addressable
20.	Fire Lite	9200	Addressable
21.	Fire Lite	9600	Addressable
22.	Mircom	FA300 series	Conventional
23.	AES	7706-ULF	Addressable

NOT ACCEPTABLE

Simplex	4004
Gamewell	Flex 400
Silent Knight	5700
Silent Knight	5820



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Appendix D Municipal Fire Alarm Radio Box System Application for Installation Certification

Applicant Name: _____

Company: _____

Mailing Address: _____

City, State, Zip: _____

Business Phone: _____ Cell Phone: _____

Email: _____

Today's Date: _____

Please provide the following information:

Are you an authorized AES equipment dealer? **Yes** **No**

- Attach a copy of your Certificate of Completion from AES IntelliNet training
- Attach documentation showing past experience with AES IntelliNet installation work. (Ex. of documentation include: material invoices from AES, invoices of completed work etc.)
- Attach a reference from an AES IntelliNet system administrator or contact person

This application and all required documentation should be submitted to Capt. Bryan Burr as listed above.

FOR DEPARTMENT USE ONLY

Approved	Denied	By	Date
----------	--------	----	------



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Appendix E Application for Sprinkler System

Property Address: _____

Owner's Name: _____

Address: _____

Bus Phone: _____ Cell Phone: _____

Email: _____

Installer's Name: _____

Installer's Company: _____

Address: _____

Installer's business phone: _____ Cell Phone: _____

Designer's Name: _____

Address: _____

Designer's Bus. Phone: _____ Designer's Cell Phone: _____

Email: _____

NICET Certification No.: _____

Plumbing Permit No.: _____ Date: _____

Type of Building: _____ Type of Occupancy: _____

Number of Stories (including basement): _____ Total Floor Area: _____

Manufacturer of Equipment: _____

No. of Valves: _____ Post Indicating Valve: _____

No. of Flow Alarm: _____ Wall Post Indicating Valve: _____

No. of Heads and Temperature: _____ Tamper Switch: _____

Name of Fire Alarm Installer: _____

Type of Connection to Fire Department Headquarters: _____

Fire Dept. Use ONLY	
Date Received	_____
ID#	_____
Date Reviewed	_____
Date Approved	_____
Check Received	_____

Provide the following with this application:

- | | |
|------------------------------|--|
| _____ Equipment Cut Sheets | _____ One Line Riser Diagram Showing Proposed Zoning |
| _____ Plot Plans | _____ Standpipe Calculation |
| _____ Floor Plans | _____ Sprinkler Hydraulic Calculation |
| _____ \$75 fee per submittal | |

Equipment must be installed in accordance with NFPA and the Claremont Fire Department Rules and Regulations governing sprinkler systems and manufacturer’s installation instructions.

Applicant is hereby made for approval for the installation of sprinkler system.

_____	_____
Signature of Owner or Applicant	Date

NOTE: Upon receipt of application, properly executed, applicant will be advised as to the submittal of additional information and date required, such as detailed description, drawings, photographs, or laboratory test reports.



**Claremont Fire Department
Fire Prevention Office**

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Appendix F Sprinkler System Inspection & Testing

Place of Testing

Name: _____ Address: _____

VIOLATIONS: YES _____ NO _____ **Inspection Date:** _____

Inspection Company Info

Owner Info

Name: _____ Name: _____

Address: _____ Address: _____

C/S/Z: _____ C/S/Z: _____

Inspector: _____ Owner Rep: _____

Inspector cell phone: _____ Rep phone: _____

Insp. Co. email: _____ Owner/Rep email: _____

1. GENERAL	YES	NO	N/A
a. Is the building occupied?			
b. Is occupancy same as previous inspection?			
c. Are all systems in service?			
d. Are all fire protection systems same as last inspection?			
e. Is building completely sprinkled?			
f. Are all new additions and building changes properly protected?			
g. Is all stock or storage properly below sprinkler piping?			
h. Was property free of fires since last inspection?			
i. In areas protected by wet system, does the building appear to be properly heated in all areas, including blind attics and perimeter areas; are all exterior openings protected against entrance of cold air?			
2. CONTROL VALVES (See Section 16)			
a. Are all sprinkler system main control valves open?			

b. Are all other valves in proper position?			
c. Are all control valves in good condition and sealed or supervised?			
3. WATER SUPPLIES (See Section 17)			
a. Was a water flow test made and results satisfactory?			
4. TANKS, PUMPS, FIRE DEPARTMENT CONNECTIONS			
a. Are fire pumps, gravity tanks, reservoirs and pressure tanks in good condition and properly maintained?			
b. Are fire dept. connections in satisfactory condition, couplings free, caps in place and check valves tight?			
5. WET SYSTEMS (See Section 13)			
a. Are cold weather valves open or closed as necessary?			
b. Have anti-freeze systems been tested and left in satisfactory condition?			
c. Are alarm valves, water flow indicators and retards in satisfactory condition?			

6. DRY SYSTEMS (See Section 14)	YES	NO	N/A
a. Is dry valve in service and in good condition?			
b. Is air pressure and priming water level normal?			
c. Is air compressor in good condition?			
d. Were low points drained during fall and winter inspections?			
e. Are quick opening devices in service?			
f. Has piping been checked for stoppage within past 10 years?			
g. Has piping been checked for proper pitch within past 5 years?			
h. Have dry valves been trip tested satisfactorily as required?			
i. Are dry valves adequately protected from freezing?			
j. Valve house and heater condition satisfactory?			
7. SPECIAL SYSTEMS (See Sections 15 and 18)			
a. Were valves tested as required?			
b. Were all heat responsive systems tested and results satisfactory?			
8. ALARMS			
a. Water motor and gong test satisfactory?			
b. Electric alarm test satisfactory?			
c. Supervisory alarm service test satisfactory?			
9. SPRINKLERS - PIPING			
a. Are all sprinklers in good condition, not obstructed, and free of corrosion or loading?			
b. Are all sprinklers less than 50 years old?			
c. Are extra sprinklers readily available?			

d. Is condition of piping, drain valves, check valves, hangers, pressure gauges, open sprinklers, strainers satisfactory?			
e. Are all sprinklers of proper temperature rating?			
f. Are portable fire extinguishers in good condition?			
g. Is hand hose on sprinkler systems satisfactory?			
10. Date Dry System Piping last checked for stoppage			
11. Date Dry System Piping last checked for proper pitch			
12. Date Dry Pipe Valve last trip tested			
13. Wet System: No?	Make/Model:		
14. Dry System: No?	Make /Model:		
15. Special Systems: No?	Type:	Make/Model:	Condition:

Please explain any "NO" answers on page 3 of this form.

Inspection is not complete unless ALL pages of form are filled out completely.

1. Control Valves	No	Type	Open		Secured		Closed		Signs		Condition
			Yes	No	Yes	No	Yes	No	Yes	No	
City Connection Control Valve											
Tank Control Valves											
Pump Control Valves											
Sectional Control Valves											
System Control Valves											

WATER FLOW TEST

2. Water Pressure			City		Tank			Fire Pump		Pressure After
Test Pipe Located	Size Test Pipe	Pressure Before	Flow Pressure	Pressure After	Test Pipe Located	Size Test Pipe	Pressure Before	Flow Pressure		

3. Heat Responsive Devices			Type		
Valve No.	A	B	C	D	E
Valve No.	A	B	C	D	E
Valve No.	A	B	C	D	E
Valve No.	A	B	C	D	E
Valve No.	A	B	C	D	E
Valve No.	A	B	C	D	E
Valve No.	A	B	C	D	E
Valve No.	A	B	C	D	E
Auxiliary Equipment:	No	Type	Location	Test Results	

Please explain any "NO" answers on page 4 of this form.

Inspection not complete unless ALL pages of form are filled out completely.

1. Explanation of any "No" answers:

2. Recent changes in building occupancy or fire protection equipment:

3. Adjustments or corrections made:

4. Desirable improvements:



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Appendix G Sprinkler Owner's Information Certificate

Name/Address of property to be protected with sprinkler protection: _____

Name of owner: _____

Existing or planned construction is: ___ fire resistive or noncombustible ___ wood frame or ordinary
(masonry walls with wood beams) ___ unknown

Describe the intended use of the building: _____

Note regarding speculative buildings: The design and installation of the fire sprinkler system is dependent on an accurate description of the likely use of the building. Without specific information, assumptions will need to be made that will limit the actual use of the building. Make sure that you communicate any and all use considerations to the fire sprinkler contractor in this form and that you abide by all limitations regarding the use of the building based on the limitations of the fire sprinkler system that is eventually designed and installed.

Is the system installation intended for one for the following special occupancies:

- Aircraft hangar Yes No
- Fixed guideway transit system Yes No
- Race track stable Yes No
- Marine terminal, pier, or wharf Yes No
- Airport Terminal Yes No
- Aircraft engine test facility Yes No
- Power Plant Yes No
- Water-cooling tower Yes No

If the answer to any of the above is "yes" the appropriate NFPA standard should be referenced for sprinkler density/area criteria.

Indicate whether any of the following special materials are intended to be present:

- | | | |
|---------------------------------------|---------|--------|
| Flammable or combustible liquids | ___ Yes | ___ No |
| Aerosol products | ___ Yes | ___ No |
| Nitrate film | ___ Yes | ___ No |
| Pyroxylin plastic | ___ Yes | ___ No |
| Compressed or liquefied gas cylinders | ___ Yes | ___ No |
| Liquid or solid oxidizers | ___ Yes | ___ No |
| Organic peroxide formulations | ___ Yes | ___ No |
| Idle pallets | ___ Yes | ___ No |

If the answer to any of the above is "yes," describe type, location, arrangement, and intended maximum quantities: _____

Indicate whether the protection is intended for one of the following specialized occupancies or areas:

- | | | |
|--|---------|--------|
| Spray area or mixing room | ___ Yes | ___ No |
| Solvent extraction | ___ Yes | ___ No |
| Laboratory using chemicals | ___ Yes | ___ No |
| Oxygen-fuel gas system for welding or cutting | ___ Yes | ___ No |
| Acetylene cylinder charging | ___ Yes | ___ No |
| Production or use of compressed or liquefied gases | ___ Yes | ___ No |
| Commercial cooking operation | ___ Yes | ___ No |
| Class A hyperbaric chamber | ___ Yes | ___ No |
| Cleanroom | ___ Yes | ___ No |
| Incinerator or waste handling system | ___ Yes | ___ No |
| Linen handling system | ___ Yes | ___ No |
| Industrial furnace | ___ Yes | ___ No |
| Water-cooling tower | ___ Yes | ___ No |

If the answer to any of the above is "yes," describe type, arrangement, and intended maximum quantities.

Will there be any storage of products over 12 ft. (3.6 m) in height? ___ Yes ___ No

If the answer is "yes," describe product, intended storage arrangement, and height.

Will there be any storage of plastic, rubber, or similar products over 5 ft. (1.5 m) high except as described above? ___ Yes ___ No

If the answer is "yes," describe product, intended storage arrangement, and height.

Is there any special information concerning the water supply? ___ Yes ___ No

If the answer is "yes," provide the information, including known environmental conditions that might be responsible for corrosion, including microbiologically influenced corrosion (MIC).

I certify that I have knowledge of the intended use of the property and that the above information is correct.

Signature of Owner/Representative Printed name of Owner/Representative Date



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Appendix H Application for Fire Suppression/Clean Agent Systems

Property Address: _____

Project Name and/or Building No.: _____

Owner's Name: _____

Address: _____

Email: _____

Phone(s): _____

Installer's Name: _____

Company: _____

Address: _____

Phone(s): _____

Designer's Name: _____

Address: _____

Email: _____

Phone(s): _____

Fire Dept. Use ONLY	
Date Received	_____
Application #	_____
Date Reviewed	_____
Date Approved	_____
Check Received	_____

Fire Alarm Permit #: _____ Electrical Permit #: _____ Mechanical Permit #: _____

Type of Building: _____ Type of Occupancy: _____

Manufacturer of Equipment: _____

Method of Suppression: _____ Wet Chemical _____ Dry Chemical _____ Clean Agent

Type of Detection/Activation: _____

Number of Tanks: _____ Number of Nozzles: _____

Number of Appliances Covered: _____ Number of Links and Temp: _____

Utility Shut Down: _____ Air Handling Shut Down: _____

Sprinkler System Modifications: _____

Type of Connection to Fire Department Headquarters: _____

Provide the following with this application:

_____ Plot Plans

_____ Floor Plans

_____ Equipment Cut Sheets/Installation Manual

_____ \$75 submittal fee

Equipment must be installed in accordance with NFPA and the Claremont Fire Department Rules and Regulations governing Fire Suppression Systems/Clean Agent Systems and manufacturer's installation instructions. Permits and inspections shall be required for all new installations and to any work or modification to existing fire suppression/clean agent systems.

Applicant is hereby made for approval for the installation of sprinkler system.

Signature of Owner or Applicant

Date

Note : Upon receipt of application, properly executed, applicant will be advised as to the submittal of additional information and date required, such as detailed description, drawings, photographs, or laboratory test reports.



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Appendix I Fire Suppression Inspection and Testing Form

Place of Testing

Name: _____ Address: _____

VIOLATIONS: YES _____ NO _____ **Inspection Date:** _____

Inspection Type: _____

Inspection Company Info

Name: _____

Address: _____

C/S/Z: _____

Inspector: _____

Inspector cell phone: _____

Insp. Co. email: _____

Owner Info

Name: _____

Address: _____

C/S/Z: _____

Owner/Rep: _____

Rep Phone: _____

Owner/Rep email: _____

System Manufacturer: _____

System Model: _____

Mfg. Hydro Test Date: _____

Number of Detectors and Degree: _____

Number and Type of Nozzles: _____

Energy Shutoffs: _____

Accessory Equipment: _____

KEY: √ =Checked	DEF= Deficient	UNK=Unknown	N/A=Not Applicable	REP=Repaired
------------------------	----------------	-------------	--------------------	--------------

- | | | | |
|---|-------|--|-------|
| 1. All appliances properly covered with correct nozzles | _____ | 19. Check travel of cable nuts/S-hooks | _____ |
| 2. Duct and plenum covered with correct nozzles | _____ | 20. Piping and conduit securely bracketed | _____ |
| 3. Check positioning of nozzles | _____ | 21. Proper separation between fryers and flame | _____ |
| 4. System installed in accordance with mfg UL listing | _____ | 22. Proper clearance—flame to filters | _____ |
| 5. Hood/duct penetrations sealed w/ weld or UL device | _____ | 23. Exhaust fan operating properly | _____ |
| 6. Check if seals intact, evidence of tampering | _____ | 24. All filters reinstalled | _____ |
| 7. If system has been discharged, report same | _____ | 25. Fuel shut-off in "on" position | _____ |
| 8. Pressure gauge in proper range (replace, if needed) | _____ | 26. Manual and remote set/seals in place | _____ |

- | | | | |
|---|-------|--|-------|
| 9. Check cartridge weight (replace, if needed) | _____ | 27. Replace system covers | _____ |
| 10. Hydrostatic/ 6 year maintenance date | _____ | 28. System operational and seals in place | _____ |
| 11. Inspect cylinder and mount | _____ | 29. Slave system operational | _____ |
| 12. Operates system from terminal link | _____ | 30. Clean cylinder and mount | _____ |
| 13. Test for proper operation from remote | _____ | 31. Fan warning sign on hood | _____ |
| 14. Check operation of micro switch | _____ | 32. Personnel instructed in manual operation of sys. | _____ |
| 15. Check operation of gas valve | _____ | 33. Proper hand portable extinguishers (K and ABC) | _____ |
| 16. Proper nozzle covers in place/clean nozzles | _____ | 34. Portable extinguishers properly serviced | _____ |
| 17. Check fuse links and clean | _____ | 35. Service and certification tag on system | _____ |
| 18. Replace fuse links (record date here) _____ | _____ | | |

NOTE DEFICIENCIES, COMMENTS AND RECOMMENDATIONS: (Continue on back as necessary)

Inspector (PRINT) _____ Inspector's Signature _____
 Company Representing _____ Address _____
 City/State/Zip _____ Phone/Fax _____

A copy of this report must be submitted to the Claremont Fire Department Fire Prevention Division