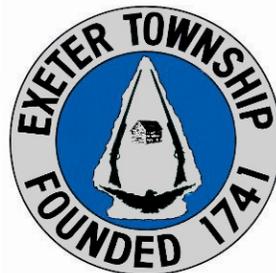


# FIRE ALARM SYSTEMS INFORMATION PACKET



**Exeter Township Fire Department**  
Office of the Fire Official



2010

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## **PURPOSE**

This information packet has been developed in an effort to provide the highest level of service to the customers of the Exeter Township. The major goal of the fire alarm plan reviews conducted by the ETFD Fire Prevention Division is to insure the design of fire alarm systems meet the minimum requirements of the adopted codes and ordinances. To meet this goal, the submitted plans and supporting documentation must contain all the necessary information needed to conduct a thorough review.

## **SCOPE**

This packet outlines the requirements set forth in the International Fire Code, local amendments, departmental policies and NFPA 72 as they relate to the installation fire alarm systems. This packet is not intended to provide an all-inclusive listing of submittals and inspection requirements, as it would be virtually impossible to cover all situations. Also included in this packet is information covering items required to be included on the working drawings and supporting documents.

## **DEFINITIONS**

ETFD Exeter Township Fire Department

NFPA National Fire Protection Association

IFC International Fire Code

FACP Fire Alarm Control Panel

FSA Fire System Annunciator

IBC International Building Code

## **GUIDELINES**

### **I. INTRODUCTION**

#### **A. APPLICABLE CODES AND STANDARDS.**

1. 2009 International Fire Code and local Amendments.
2. Current Edition of NFPA 72 National Fire Alarm Code.
3. Current Edition of NFPA 70 National Electrical Code.
4. Current Edition of NFPA 13 Installation of Sprinkler Systems and associated standards
5. Exeter Township Ordinances.

## B. ADMINISTRATIVE REQUIREMENTS.

1. **Approved Contractors.** All fire alarm contractors shall obtain an Exeter Township Certificate of Fitness in order to design, install, add to, alter, service or repair fire alarm systems, in accordance with the International Fire Code. Please contact the Exeter Township Fire Official's Office, at 610-779-4888 for additional information.
2. **Code/Standard Editions.** Fire alarm systems shall meet the criteria of the current edition of IFC as amended and all applicable requirements of the most recent edition of the NFPA standards. NFPA standards are effective on the January 1<sup>st</sup> of the year following the effective date printed in the standard, per IFC 4501.1. Fire alarm systems shall also meet the requirements set forth in ETFD local Ordinances.
3. **Permits/Inspections.** Required plan submittal with approvals, permits and associated inspection must be secured through the Exeter Township Fire Official's Office. Plan approval and permits shall be secured prior to the start of any work. The fee is (1½) % of project cost or a \$200.00 minimum.
4. **Special Circumstances.** Depending on the scope of work, different types of submittals may be required; therefore you may want to contact the ETFD Fire Prevention Division for any additional information. For example, a performance based installation must be substantiated with documentation such as fire models with scenarios chosen by the Fire Code Official and/or documentation from an independent testing agency or manufacturer supporting the proposed design.
5. **Alternative Methods.** If special building conditions and/or restrictions existing that may prohibit any of the requirements set forth in this packet from being met, approval by the ETFD Fire Prevention Division for an alternate installation will be required. This alternate method must be approved before any installation of the system begins.
6. **Non-Required Systems.** All non-required fire alarm systems shall meet the requirements as listed previously. Additionally, they shall be submitted for review and approval to the ETFD Fire Prevention Division.

## II. SUBMITTAL INFORMATION

Submittals shall be of sufficient clarity and quality to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the IFC, and other relevant laws, ordinances, rules and regulations adopted by Exeter Township, and as determined by the Fire Code Official. You may refer to the attachments section of this packet for a more complete checklist of items required to be provided on the submitted plans.

### A. MINIMUM REQUIREMENTS OF THE ETFD FOR SUBMITTAL.

1. Drawings shall be submitted on sheets no less than 24x36 inches and shall be drawn to 1/8" or 1/4" scale. Other scales may be accepted on an as-needed basis, please contact the ETFD Fire Marshal Office if you have questions regarding the use of different scales.
2. A minimum of 2 sets of fire alarm plans shall be submitted to the ETFD Fire Official's Office and shall include the items found in the checklist provided within this packet.

3. Two sets of the manufactures product information (cut sheets) shall be provided. This is to include the information on all devices that are part of, or being connected to, the fire alarm system. Any cut sheets showing multiple models/type of devices, the specific item being installed shall be highlighted. As an example, the use of multi-candela horn/strobes shall have the specific model number highlighted and the current draws associated with that model and candela rating highlighted. Cut sheets shall be rolled inside the plans to prevent them from becoming separated, if the cut sheets are too large to feasibly roll them, a binder identifying the project is acceptable. Stamped cut sheets will be returned to the contractor and must remain with the approved plans, on the job site.

4. All required nonresidential fire alarm systems shall be:

- a. Addressable – point identifiable
- b. Bear the UL protective services label for commercial use
- c. Monitored by an approved UL central station company
- d. Certificated and listed with UL or FM (as required by NFPA)
- e. UL or FM placard shall be placed in a frame mounted adjacent to the fire alarm panel

5. Secondary Power Calculations (Battery Calculations).

A minimum of 2 sets of the secondary power (battery) calculations shall be provided for all power supplies being installed within the system. This is to include the voltage and amperage information on all batteries being installed within the main panel and any supplemental power panels being provided.

6. Voltage Drop Calculations.

Two sets of voltage drop calculations shall be submitted with the plans. These calculations are to include the following information:

- a. The total number of devices on each wiring circuit.
- b. The current draw of each device.
- c. The maximum length of wire utilized on each circuit.
- d. The wire size being used.
- e. The voltage remaining at the last device.
- f. Intelligent Horn/Strobes must show the manufactures information of how the voltage drops shall be calculated.
- g. Adjustable Multi-Candela Horn/Strobes - the battery calculations shall be calculated according to the candela rating on the fire alarm plans. For example, if the fire alarm plans indicate the candela rating is a 110 candela, the battery calculation shall calculate for a 110 candela.

7. Sequence of Operations.

The sequence of operation of the fire alarm system shall be provided in matrix format. An example of the typical input/output matrix format is located in NFPA 72 p. 72-158 Figure A.10.6.2.3 (9).

### III. GENERAL INFORMATION AND REQUIREMENTS

#### A. QUALIFICATIONS FOR FIRE ALARM INSTALLATION AND SERVICE PERSONNEL

1. In accordance with the referenced Edition of NFPA 72 (National Fire Alarm Code), all fire alarm service personnel must be experienced in the installation, inspection, testing and maintenance of fire alarm systems.

2. The Exeter Township Fire Official's Office will accept the following as evidence of qualifications to work on a *nonresidential* fire alarm system:

- a. A factory trained and certified individual
- b. An individual fire alarm certified by the National Institute for Certification in Engineering (NICET). Installers shall be certified to minimum of NICET Level III
- c. An individual fire alarm certified by the International Municipal Signal Association (IMSA)
- d. A trained and certified individual employed by an organization listed by a national testing laboratory for the servicing of fire alarm systems (Underwriters Laboratories or Factory Mutual)

3. The following will be accepted as evidence of qualifications to work on a *residential* fire alarm system:

- a. Any person with qualifications to work on a nonresidential fire alarm system
  - b. A person who provides evidence of satisfactory completion of the Practical Fire Alarm Course presented by the National Burglar and Fire Alarm Association, Inc. (NBFAA)
- 

#### B. FACP'S AND FSA'S.

1. The Fire alarm control panel shall be located at the main entrance of the building or at an approved location by the fire code official. If the FACP is not located at the entry, a Fire Alarm Annunciator shall be provided at the main entrance (NFPA 72).

2. A Knox Box shall be provided on the exterior of all buildings provided with a monitored fire protection system per current edition of the IFC. The Knox Box shall be near the main entrance. Information concerning the ordering and mounting the Knox Box may be obtained by contacting the Exeter Township Fire Official's Office.

#### C. ZONED SYSTEMS. (NOT ALLOWED)

#### D. MONITORING.

1. In accordance with IFC and ETRD local Ordinances, all fire alarm system shall be monitored by an approved central station. ETRD considers all UL listed or FM approved central stations.

E. SIGNAGE.

1. Approved signage must be provided on the door of the enclosure in which any fire alarm control panels are located stating "Fire Protection Systems" in white 2-inch high block letters with a stroke of not less than ¼-inch and a red color contrasting background
2. Signs shall be permanent, weatherproof and appropriately secured.

F. SPECIAL HAZARD EXTINGUISHING SYSTEMS.

1. Dry/wet chemical, carbon dioxide, halon, clean agent systems shall be connected to the building fire alarm system, if provided, in accordance with the requirements of NFPA 72, such that the actuation of the extinguishing system will sound the fire alarm as well as provide the function of the extinguishing system. (Reference NFPA standard applicable to the type of system).

G. DUCT DETECTORS AND SMOKE DAMPER DETECTORS.

1. Duct detectors required by the provisions of IMC and NFPA shall be connected to the building fire alarm control panel system, where provided, in accordance with the requirements of NFPA 72 and NFPA 90A. Duct detectors shall **NOT** initiate a general alarm signal; they shall initiate a supervisory signal only. If the fire alarm panel is monitoring smoke damper detectors, the smoke damper detectors shall initiate a supervisory signal not a general alarm signal (NFPA 90A).

H. NOTIFICATION DEVICES IN TENANT FINISHES AND NEW ADDITIONS.

1. **Audible.** ETFD will allow the new addition or the tenant finish to be the same tone as the existing audible devices, in lieu of 3-pulse temporal when the existing horns do not sound as 3-pulse temporal.

**Decibel d/b levels shall be identified on drawings.**

2. **Visual.** The new strobe devices are required to be synchronized amongst each other. The new strobe devices do not have to be synchronized with existing strobe devices, unless there are more than two visible notification appliances in the same room or adjacent space within the field of view ( current NFPA 72 7.5.4.1.2).

**Candela Ratings for each device shall be identified on drawings.**

#### IV. ADDITIONAL SYSTEMS

A. ELEVATORS/ELEVATOR RECALL (NFPA 72).

1. Shall comply with current edition of IBC, IFC and Pennsylvania State Elevator Code.
2. Elevator Recall functions shall include a 3<sup>rd</sup> circuit to indicate to emergency responders the elevator is no longer safe to use (NFPA 72:6.15.3.9).
3. Elevator Recall system shall be tied to the building fire alarm system if provided.
4. In facilities without a building fire alarm system, automatic smoke detection shall be connected to a dedicated fire alarm system control unit that shall be designated an "Elevator Recall Control/Supervisory Panel" permanently identified on the control unit.
5. The control unit for the elevator recall system (those without a building fire alarm system) shall be located in a normally occupied area. Audible and visual indicators to annunciate supervisory (elevator recall) and trouble conditions shall be provided. No form of general notification or evacuation is intended by a stand alone elevator recall system.

## B. WATER FLOW ALARM SYSTEMS.

In accordance with the current edition of the IFC, all valves controlling the water supply for automatic sprinkler systems and water-flow switches on all sprinkler systems shall be electrically monitored where the number of sprinklers exceeds 20 for all occupancies. There are exceptions to this, please refer to the 2009 IFC and local amendments for these exceptions.

ETFD requires the fire alarm control panel or annunciator, an interior horn/strobe, and a manual pull station at a constantly attended location i.e. customer service desk, cash register area, etc.

There must be an exterior horn/strobe within 20 feet of the FDC. The exterior horn/strobe shall activate upon a water flow alarm only, and de-activate when the water flow stops.

## C. RESIDENTIAL FIRE ALARM SYSTEM REQUIREMENTS (IFC 907.2.10.1.2.3) AND NFPA 72

Residential fire alarm systems vary somewhat from commercial grade fire alarm systems. This section of the packet attempts to indicate the differences and similarities while providing the requirements.

Per NFPA 72:11.1.4, the requirements of chapters 4-9 do not apply unless specifically noted. The audible signal shall be that of the emergency evacuation tone described in ANSI S3.41, which is the temporal 3 evacuation tone.

Audible fire alarm signals shall meet the performance requirements of NFPA 72 which provide the following levels – 15 dB above average ambient sound levels and 75 dB at the pillow level in all sleeping areas, with any and all intervening doors closed.

If visible appliances are provided, they shall meet the requirements of NFPA 72.

When a smoke detector activates and is provided with a sounder base, they shall be interconnected such that if one sounds, they all sound, and it shall be audible in all occupiable dwelling areas.

1. Smoke detectors installed on all levels, within all bedrooms, and hallways near bedrooms.
2. Rate-of-rise, 190-200 degree F fixed temperature detectors in kitchen and garage areas.
3. A listed, low-voltage residential alarm control panel.
4. Wiring meeting Article 760 of the National Electrical Code.
5. Horn circuits in the interior of the residence, or smoke detectors with built in sounders may be used to meet this requirement as long as they are interconnected.

#### D. COMBINATION FIRE/BURGLARY SYSTEMS (NFPA 72:6.8.4).

Combination fire/burglary system control unit shall be listed for their intended use.

Short and open circuits, ground faults in fire and non-fire alarm equipment shall not interfere with the monitoring for integrity of the fire alarm system or prevent alarm, supervisory or fire safety control signal transmissions. Ground faults shall at least indicate a trouble signal, even if the panel is not capable of specifying the trouble.

Speakers used as alarm notification appliances on fire alarm systems shall NOT be used for non-emergency purposes.

Fire Alarm signals shall be distinctive, clearly recognizable and take precedence over any other signal, even if the non-fire alarm system was initiated first. The monitoring company must be able to distinguish between fire and burglar alarms, as well as the panel. It cannot come in as a burglar alarm when it is a fire alarm and vice versa.

#### V. INSTALLATION

##### A. PERMITS.

1. The installation of the fire alarm system is not to begin, (including any pre-wiring), until the working plans have been reviewed and approved by the Exeter Township Fire Official's Office and a construction permit secured on site, per current edition of the IFC. The plan review fee is **1½ % of the project cost or a \$200.00 minimum**. The plan review fee shall accompany the plan submission.
2. Permits for fire protection systems expire 180 days after date of issue. A 30 day extension may be given. After the grace period expires, if no inspections have been conducted, new plans and permit will be required to be submitted.

##### B. APPROVED CONTRACTORS.

1. An Exeter Township approved Installer shall be on-site for all installations, additions, alterations repair and inspections of fire alarm systems. The Installer shall be employed by an approved Fire Alarm Contractor.

##### C. PERMISSIBLE OMISSIONS.

1. **Multi-Tenant Buildings.** A pull station may be required in strip mall type buildings.
2. **Apartment Buildings with Breezeways.** A pull station is not required to be provided in exterior corridors (breezeways) of apartment buildings.

##### D. SMOKE DETECTORS INSTALLED

1. Smoke detectors shall not be installed until final clean up of the entire project. The shipping covers that come with the smoke detectors are not considered listed dust covers and are not to be considered as protection against dust or other contaminants. (current NFPA 72 5.7.1.11).
2. If smoke detectors, including duct detectors, are installed prior to final cleanup, documentation that the sensitivity of the detector has been tested and is still within its acceptable range will be required at the time of system acceptance.

## VI. INSPECTION AND TESTING

### A. INSPECTION.

All fire protection systems shall be inspected, tested and maintained in accordance with the referenced standards listed in the current edition of the IFC. The following inspections are also required for all new fire alarm or detection systems. Any existing fire alarm or detection system that is modified, repaired, has system components added or removed, or has any other changes to wiring or hardware shall also require these inspections. There will be only one acceptance test. All required trades people shall be present. If an additional test is required you will be charged the re-inspection fee of \$50.00 per hour.

1. A visual inspection of the complete fire alarm/detection system shall be performed by the Fire Code Official.
2. Initial Acceptance Testing is required on all new fire alarm/detection systems. Inspection and testing requirements are found in the IFC and referenced Edition of NFPA 72. The Fire Code Official shall be present for acceptance testing.
3. Reacceptance Testing is required on all fire alarm/detection systems that undergo any modification, repair, or adjustment to system hardware or wiring, the addition or deletion of any system components or any change to site-specific hardware. Inspection and testing requirements are found in the IFC and referenced Edition of NFPA 72. The Fire Code Official shall be present for reacceptance testing.
4. After successful completion of the acceptance tests a set of "as-built" drawings, operation and maintenance manuals and a written sequence of operation shall be provided to the building owner. (NFPA 72).
5. The installing contractor shall furnish a written statement stating that the system has been installed in accordance with the approved plans and testing in accordance with the manufacturer's specifications and the appropriate NFPA requirements. (NFPA 72).
6. A fire alarm "RECORD OF COMPLETION" form found in NFPA 72 shall be provided to the ETRD inspector at the time of inspection.
7. Central Station contract, maintenance agreement and printed list of all device addresses, names, locations and test dates shall be presented at time of final acceptance testing.
8. Smoke control systems, generators and all other life safety devices shall be inspected and operated according to Chapter 9 of the IFC current edition.
9. It shall be the duty of the person doing the work authorized by a permit to notify the ETRD that the work is ready for inspection. It shall also be the responsibility of the person requesting the inspections to provide access to and means for proper inspection of the work.
10. Depending on system requirements other inspections may be required.
11. Inspections must be scheduled at least 48 HOURS in advance. To schedule an inspection call 610-779-4888.

B. TESTING.

1. Notification appliances and circuits, alarm, supervisory, and trouble initiating devices and circuits, primary and secondary power supplies shall be tested in accordance with NFPA 72 per current edition of the IFC.
2. A full operational pre-test of the fire alarm system shall be performed **PRIOR** to the scheduled fire inspection.
3. A/C Power Loss and delays on reporting; If there are any delays in reporting A/C power loss, this time delay must be accounted for. Either the panel must be programmed to a zero delay for inspection purposes OR the A/C must be disconnected PRIOR to the inspection, so the signal will be sent during the inspection. The disconnection time must be recorded.

C. COMPLETION DOCUMENTS.

1. The completed *Fire Alarm System Record of Completion* form is to be provided to the ETFD inspector at the time of inspection. This form is located in NFPA 72.
2. An owner's manual and installation instructions covering the fire alarm systems equipment.
3. A copy of the completed *Fire Alarm System Installer's Certification*.
4. Testing, Maintenance and inspection contract (1 year)
5. As - built drawings

D. MODIFICATIONS TO EXISTING SYSTEMS.

1. When any initiating device, notification appliance or control relay is added, it shall be functionally tested.
2. If any of the above is deleted, another item of the same description on the circuit shall be tested.
3. When any modification to the control equipment is made, the control equipment shall be tested in accordance with NFPA 72:10.4.

## **LINKS**

<http://www.exetertownship.com>

## **ATTACHMENTS**

1. Working Drawing Submittal Checklist
2. Public/Common Use Areas requiring Notification
3. Fire Prevention Construction Permit
4. Fire Protection Systems Application
5. Affidavit page
6. Record of Completion ( Sample)
7. Certificate of Fitness Policy Statement
8. Certificate of Fitness Application

## ATTACHMENT 1



### **FIRE OFFICIAL'S OFFICE**

4975 DeMoss Road, Reading, PA 19606, (610)-779-4888

[www.exetertownship.com](http://www.exetertownship.com)

### **Working Drawing Submittal Checklist**

#### **Title Block shall contain the following:**

- Name of owner and occupant.
- Location including full street address as assigned by RBD Enumerations, including Suite Numbers.
- Name, address, phone, FAX number and email address of installing contractor and designer.
- Signature/seal that these drawings were reviewed by a person holding a NICET level III or IV certification in Fire Alarm Systems or State of Colorado Professional Engineering license certification. (November 1, 2007 grace period to attain NICET expires).
- Point of Compass on every page.
- A scale including graphic representation.
- Detailed scope of work.
- A list of the codes, including the edition dates, which were used to design the fire alarm system.
- Type of fire alarm system – zoned, addressable, intelligent.
- Name, address and type (central, remote, proprietary) of monitoring agency.

#### **Information required on Drawings:**

##### **Building Information:**

- Ceiling height and construction details.
- Building construction type and occupancy classification. If Multi-use, note separate occupancy classifications on the layout or key plan.
- Building elevation detail/view.

**System Information:**

- Device Legend to include: Make, model, temperature rating if applicable, candela rating if applicable.
- Wiring Legend to include: Wire type and size.
- Complete riser detail.
- All addressable fire alarm systems are to provide a listing of the addresses being used on each indicating device. This information is to include the device identification number, type of device, location of the device and the location description to be displayed at the FCP.
- Power Connection.
- Battery calculations.
- Voltage Drop calculations.
- Interface of fire safety functions.
- Intended areas of coverage.
- Sequence of operations – matrix format.

**Plan Information:**

- Site Plan – new construction.
- Floor plan indicating use of all rooms.
- Location of Alarm control and trouble signaling equipment.
- Location of Annunciation.
- Location of FDC location of alarm bells (exterior horn/strobe).
- Location and details of all tamper switches, control relays, etc.
- The location of all elevators and elevator equipment rooms shall be indicated. (Refer to section IV of this).
- The location of system duct smoke detectors shall be indicated. This information is to include the location of the remote test switch, when the remote test switch is required.
- Rated corridors and/or area separation walls shall be indicated on the plans. Location of partitions, fire walls and /or area separation walls and rating classifications.
- The location of all electromagnetic door holders and the smoke detectors that release those electromagnetic doors shall be shown. The ceiling elevation on either side of these doors must be indicated on the plans.
- Locations of all initiating devices shall be shown on the plans. This information is to include point-to-point-wiring and the address or zone of the device. On intelligent systems, the address of the device shall be placed next to the device on the plans. On zone systems, the zone circuit shall be identified on the plans next to the device.

- The locations of all system notification appliances shall be provided. Include the point-to-point wiring and the circuit number between devices on the plans. The candela rating of each device shall be indicated on the plans next to the device.
- For addressable notification circuits, provide the full address for each device next to the device on the plans.
- When a new system is an addition to an existing system, enough of the old system shall be indicated to make all conditions clear.
- Manufacturer's Product Data.

## ATTACHMENT 2



### **FIRE OFFICIAL'S OFFICE**

4975 DeMoss Road, Reading, PA 19606, (610)-779-4888

[www.exetertownship.com](http://www.exetertownship.com)

### **Public Accessible/Common Use Rooms requiring Notification devices**

Below is a list of rooms that will be used as guidelines when designing a fire alarm system. The rooms requiring notification devices include, but not limited to:

- Reception Lobbies
- Waiting Lobby/area
- Conference/meeting rooms
- Corridors for public areas
- Restrooms
- Elevator Lobbies
- School Office Areas
- School health/nurse rooms
- Places of assembly:
  - Theater, Auditorium, Gymnasium etc.
- Classrooms
- Accessible Rooms
  - Hotels
  - Handicap & Hearing Impaired rooms etc.
- Counselor offices
- Locker/shower rooms
- Indoor Pool Areas
- Public Hotel Laundry Rooms
- Break/lunch rooms

- Dining/cafeteria rooms
- Sales floors/customer areas
- Music Practice Rooms
- Work room/office space greater than 100 sq ft.
- Libraries
- Mechanical/electrical/data/phone/utility rooms greater than 300 sq ft.
- Medical exam/treatment/patient care rooms
- Parking Garages will be a pre-designed basis. Contractors will need to contact ETRFD for parking garage structures prior to submitting fire alarm plans.
- Copy/mail rooms greater than 100 sq ft.
- Dressing rooms
- Open work areas greater than 100 sq ft.

**ATTACHMENT 3**



**FIRE OFFICIAL'S OFFICE**

4975 DeMoss Road, Reading, PA 19606, (610)-779-4888

**DEPARTMENT OF FIRE CODES & INSPECTIONS**  
**FIRE PREVENTION PERMIT**  
**"CONSTRUCTION"**

*Fee is 1½% of total job cost or \$200.00 minimum*

Today's Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Street Address: \_\_\_\_\_

Contractor's Name: \_\_\_\_\_

Contractor's Mailing Address: \_\_\_\_\_

Contact Person: Phone: \_\_\_\_\_

Contact e-mail: \_\_\_\_\_

Reason for Application: \_\_\_\_\_

Type of Fire Alarm System: \_\_\_\_\_

A Fire Code Permit is required to install equipment used in connection with fire protection systems. If you require assistance, or would like more information, contact us at 610-779-4888. When issued, the permit shall be posted in a conspicuous location on the premises and shall be kept on the premises until removed/replaced by the Fire Chief or Designee.

**Items below for Fire Official's Office Use Only**

**This section is for application approval only.**

Inspector: \_\_\_\_\_

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

**This section is for on-site final approval only.**

Inspector: \_\_\_\_\_

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

Permit # \_\_\_\_\_

AMOUNT RECEIVED: \_\_\_\_\_ Check No: \_\_\_\_\_ Date: \_\_\_\_\_

**ATTACHMENT 4**



**FIRE OFFICIAL'S OFFICE  
DEPARTMENT OF FIRE CODES & INSPECTIONS**  
4975 DeMoss Road, Reading, PA 19606, (610)-779-4888

**FIRE PROTECTION SYSTEMS APPLICATION  
(ALTERATION, INSTALLATION, REPAIR, MODIFY, ENLARGE, EXTEND, REPLACE)**

DATE: \_\_\_\_\_ FEE \$ \_\_\_\_\_ CHECK NO. \_\_\_\_\_

**PROJECT INFORMATION:**

Project Name: \_\_\_\_\_  
 Project Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 SQ. FT.: \_\_\_\_\_ NO. Of Stories: \_\_\_\_\_ Construction Type: \_\_\_\_\_  
 Use Group / Occupancy Type: \_\_\_\_\_ Hazard Class: \_\_\_\_\_

**CONTRACTOR INFORMATION:**

Name of Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ e-mail \_\_\_\_\_  
 Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**INSTALLER INFORMATION:**

Name of Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ e-mail \_\_\_\_\_  
 Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**APPLICANT INFORMATION:** (If different from above)

Name of Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ e-mail \_\_\_\_\_  
 Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

<b>PROJECT DESCRIPTION:</b>			
<input type="checkbox"/> NEW INSTALL	<input type="checkbox"/> UPGRADE / RETROFIT		
<input type="checkbox"/> FIRE ALARM	<input type="checkbox"/> SPRINKLER #13	<input type="checkbox"/> SPRINKLER #13R / D	
<input type="checkbox"/> FIRE DETECTION	<input type="checkbox"/> FIRE SUPPRESSION	<input type="checkbox"/> STANDPIPE	
<input type="checkbox"/> HOOD / DUCT	<input type="checkbox"/> SPECIAL HAZARD	<input type="checkbox"/> FIRE PUMP	<input type="checkbox"/> OTHER



**FIRE OFFICIAL'S OFFICE  
DEPARTMENT OF FIRE CODES & INSPECTIONS**

4975 DeMoss Road, Reading, PA 19606, (610)-779-4888

**AFFIDAVIT OF TRAINING AND EXPERIENCE**

I, \_\_\_\_\_ represent that I am qualified to install and/or service fire alarm systems because I am:

- A factory trained and certified individual
- Fire alarm certified by the National Institute for Certification in Engineering (NICET)
- Fire alarm certified by the International Municipal Signaling Association (IMSA)
- A trained and certified employee of an organization listed by a national testing laboratory for the servicing of fire alarm systems (Underwriters Laboratories or Factory Mutual)
- An individual who satisfactorily completed the Practical Fire Alarm Course presented by the National Burglar and Fire Alarm Association, Inc. (NBFAA)

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**Please Attach Supporting Documentation**

## ATTACHMENT 6 – Sample Record of Completion

FIRE ALARM SYSTEM RECORD OF COMPLETION	
Name of protected property: _____	
Address: _____	
Representative of protected property (name/phone): _____	
Authority having jurisdiction: _____	
Address/telephone number: _____	
<i>Organization name / phone</i>	<i>Representative name / phone</i>
Installer _____	
Supplier _____	
Service organization _____	
Location of record (as-built) drawings: _____	
Location of operation and maintenance manuals: _____	
Location of test reports: _____	
A contract for test and inspection in accordance with NFPA standard(s) Contract No(s): _____ Effective date: _____ Expiration date: _____	
System Software	
(a) Operating system (executive) software revision level(s): _____	
(b) Site-specific software revision date: _____	
(c) Revision completed by: _____ <span style="display: block; text-align: center; margin-left: 100px;">(name)</span> <span style="display: block; text-align: center; margin-left: 400px;">(firm)</span>	
<b>1. Type(s) of System or Service</b>	
_____ NFPA 72, Chapter 6 — Local	
If alarm is transmitted to location(s) off premises, list where received: _____	
_____ NFPA 72, Chapter 8 — Remote Station	
Telephone numbers of the organization receiving alarm:	
Alarm: _____	
Supervisory: _____	
Trouble: _____	
If alarms are retransmitted to public fire service communications centers or others, indicate location and telephone numbers of the organization receiving alarm: _____	
Indicate how alarm is retransmitted: _____	
_____ NFPA 72, Chapter 8 — Proprietary	
Telephone numbers of the organization receiving alarm:	
Alarm: _____	
Supervisory: _____	
Trouble: _____	
If alarms are retransmitted to public fire service communications centers or others, indicate location and telephone numbers of the organization receiving alarm: _____	
Indicate how alarm is retransmitted: _____	
_____ NFPA 72, Chapter 8 — Central Station	
Prime contractor: _____	
Central station location: _____	
<small>(NFPA 72, 1 of 4)</small>	

FIGURE 4.5.2.1 Record of Completion.

<p>Means of transmission of signals from the protected premises to the central station:</p> <p><input type="checkbox"/> McCulloh      <input type="checkbox"/> Multiplex      <input type="checkbox"/> One-way radio</p> <p><input type="checkbox"/> Digital alarm communicator      <input type="checkbox"/> Two-way radio      <input type="checkbox"/> Others</p> <p>Means of transmission of alarms to the public fire service communications center:</p> <p>(a) _____</p> <p>(b) _____</p> <p>System location: _____</p> <p><input type="checkbox"/> NFPA 72, Chapter 9 — Auxillary</p> <p>Indicate type of connection:    <input type="checkbox"/> Local energy    <input type="checkbox"/> Shunt    <input type="checkbox"/> Parallel telephone</p> <p>Location of telephone number for receipt of signals: _____</p>		
<p><b>2. Record of System Installation</b></p> <p>(Fill out after installation is complete and wiring is checked for opens, shorts, ground faults, and improper branching, but prior to conducting operational acceptance tests.)</p> <p>This system has been installed in accordance with the NFPA standards as shown below, was inspected by _____ on _____, includes the devices shown in 5 and 6, and has been in service since _____.</p> <p><input type="checkbox"/> NFPA 72, Chapters 1 2 3 4 5 6 7 8 9 10 11 (circle all that apply)</p> <p><input type="checkbox"/> NFPA 70, <i>National Electrical Code</i>, Article 760</p> <p><input type="checkbox"/> Manufacturer's instructions</p> <p><input type="checkbox"/> Other (specify): _____</p> <p>Signed: _____ Date: _____</p> <p>Organization: _____</p>		
<p><b>3. Record of System Operation</b></p> <p>Documentation in accordance with Inspection Testing Form, Figure 10.6.2.3, is attached _____.</p> <p>All operational features and functions of this system were tested by _____ date _____ and found to be operating properly in accordance with the requirements of:</p> <p><input type="checkbox"/> NFPA 72, Chapters 1 2 3 4 5 6 7 8 9 10 11 (circle all that apply)</p> <p><input type="checkbox"/> NFPA 70, <i>National Electrical Code</i>, Article 760</p> <p><input type="checkbox"/> Manufacturer's instructions</p> <p><input type="checkbox"/> Other (specify): _____</p> <p>Signed: _____ Date: _____</p> <p>Organization: _____</p>		
<p><b>4. Signaling Line Circuits</b></p> <p>Quantity and class of signaling line circuits connected to system (see NFPA 72, Table 6.6.1):</p> <p>Quantity: _____ Style: _____ Class: _____</p>		
<p>(NFPA 72, 2 of 4)</p>		

FIGURE 4.5.2.1 *Continued*

**5. Alarm-Initiating Devices and Circuits**

Quantity and class of initiating device circuits (see NFPA 72, Table 6.5):

Quantity: \_\_\_\_\_ Style: \_\_\_\_\_ Class: \_\_\_\_\_

**MANUAL**

(a) Manual stations Noncoded \_\_\_\_\_ Transmitters \_\_\_\_\_ Coded \_\_\_\_\_ Addressable \_\_\_\_\_

(b) Combination manual fire alarm and guard's tour coded stations \_\_\_\_\_

**AUTOMATIC**

Coverage: Complete \_\_\_\_\_ Partial \_\_\_\_\_

Selective \_\_\_\_\_ Nonrequired \_\_\_\_\_

(a) Smoke detectors \_\_\_\_\_ Ion \_\_\_\_\_ Photo \_\_\_\_\_ Addressable \_\_\_\_\_

(b) Duct detectors \_\_\_\_\_ Ion \_\_\_\_\_ Photo \_\_\_\_\_ Addressable \_\_\_\_\_

(c) Heat detectors \_\_\_\_\_ FT \_\_\_\_\_ RR \_\_\_\_\_ FT/RR \_\_\_\_\_ RC \_\_\_\_\_ Addressable \_\_\_\_\_

(d) Sprinkler waterflow indicators: Transmitters \_\_\_\_\_ Noncoded \_\_\_\_\_ Coded \_\_\_\_\_ Addressable \_\_\_\_\_

(e) The alarm verification feature is disabled \_\_\_\_\_ or enabled \_\_\_\_\_, changed from \_\_\_\_\_ seconds to \_\_\_\_\_ seconds.

(f) Other (list): \_\_\_\_\_

**6. Supervisory Signal-Initiating Devices and Circuits (use blanks to indicate quantity of devices)**

**GUARD'S TOUR**

(a) \_\_\_\_\_ Coded stations

(b) \_\_\_\_\_ Noncoded stations

(c) \_\_\_\_\_ Compulsory guard's tour system comprised of \_\_\_\_\_ transmitter stations and intermediate stations

Note: Combination devices are recorded under 5(b), Manual, and 6(a), Guard's Tour.

**SPRINKLER SYSTEM**

Check if provided

(a) \_\_\_\_\_ Valve supervisory switches

(b) \_\_\_\_\_ Building temperature points

(c) \_\_\_\_\_ Site water temperature points

(d) \_\_\_\_\_ Site water supply level points

**Electric fire pump:**

(e) \_\_\_\_\_ Fire pump power

(f) \_\_\_\_\_ Fire pump running

(g) \_\_\_\_\_ Phase reversal

**Engine-driven fire pump:**

(h) \_\_\_\_\_ Selector in auto position

(i) \_\_\_\_\_ Engine or control panel trouble

(j) \_\_\_\_\_ Fire pump running

**ENGINE-DRIVEN GENERATOR:**

(a) \_\_\_\_\_ Selector in auto position

(b) \_\_\_\_\_ Control panel trouble

(c) \_\_\_\_\_ Transfer switches

(d) \_\_\_\_\_ Engine running

Other supervisory function(s) (specify): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

(NFPA 72, 3 of 4)

FIGURE 4.5.2.1 Continued

**7. Annunciator(s)**

Number: \_\_\_\_\_ Type: \_\_\_\_\_ Location: \_\_\_\_\_

**8. Alarm Notification Appliances and Circuits**

NFPA 72, Chapter 6 — Emergency Voice/Alarm Service

Quantity of voice/alarm channels: \_\_\_\_\_ Single: \_\_\_\_\_ Multiple: \_\_\_\_\_

Quantity of speakers installed: \_\_\_\_\_ Quantity of speaker zones: \_\_\_\_\_

Quantity of telephones or telephone jacks included in system: \_\_\_\_\_

Quantity and the class of notification appliance circuits connected to system (see NFPA 72, Table 6.7):

Quantity: \_\_\_\_\_ Style: \_\_\_\_\_ Class: \_\_\_\_\_

Types and quantities of notification appliances installed:

(a) Bells \_\_\_\_\_ With Visible \_\_\_\_\_

(b) Speakers \_\_\_\_\_ With Visible \_\_\_\_\_

(c) Horns \_\_\_\_\_ With Visible \_\_\_\_\_

(d) Chimes \_\_\_\_\_ With Visible \_\_\_\_\_

(e) Other: \_\_\_\_\_ With Visible \_\_\_\_\_

(f) Visible appliances without audible: \_\_\_\_\_

**9. System Power Supplies**

(a) Fire Alarm Control Panel: Nominal voltage: \_\_\_\_\_ Current rating: \_\_\_\_\_

Overcurrent protection: Type: \_\_\_\_\_ Current rating: \_\_\_\_\_

Location: \_\_\_\_\_

(b) Secondary (standby):

Storage battery: \_\_\_\_\_ Amp-hour rating: \_\_\_\_\_

Calculated capacity to drive system, in hours: \_\_\_\_\_

Engine-driven generator dedicated to fire alarm system: \_\_\_\_\_

Location of fuel storage: \_\_\_\_\_

(c) Emergency system used as backup to primary power supply: \_\_\_\_\_

Emergency system described in NFPA 70, Article 700: \_\_\_\_\_

**10. Comments**

Frequency of routine tests and inspections, if other than in accordance with the referenced NFPA standard(s):

System deviations from the referenced NFPA standard(s) are: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_\_\_\_\_\_  
(signed) for installation contractor/supplier (title) (date)\_\_\_\_\_  
(signed) for alarm service company (title) (date)\_\_\_\_\_  
(signed) for central station (title) (date)

Upon completion of the system(s) satisfactory test(s) witnessed (if required by the authority having jurisdiction):

\_\_\_\_\_  
(signed) representative of the authority having jurisdiction (title) (date)

(NFPA 72, 4 of 4)

FIGURE 4.5.2.1 Continued

## ATTACHMENT 7



### **FIRE OFFICIAL'S OFFICE**

4975 DeMoss Road, Reading, PA 19606, (610)-779-4888

[www.exetertownship.com](http://www.exetertownship.com)

## **DEPARTMENT OF FIRE CODES & INSPECTIONS**

### **CERTIFICATE OF FITNESS**

#### *POLICY STATEMENT*

Exeter Township requires a Certificate of Fitness for individuals or companies performing activities related to fire safety within the jurisdiction. The types of operations include but not limited to the following: any / all types of Fire Protection and Suppression systems; Hood and Duct installers, Blasting, Demolition, Fireworks, Fire extinguishers, all types of flammable / combustible and LP- Tank installers etc.

A Certificate of Fitness is a written document issued by Exeter Township to any person or company for the purpose of granting permission to such person to conduct or engage in any operation or act for which certification is required. The certificate of fitness provides evidence that the person or company performing work is qualified, experienced, trained, skilled and competent.

The applicant shall complete the application and provide documentation of experience, training and education levels of employees and business.

Certificates of Fitness are issued on an annual basis and must be renewed during the month of December. The **fee is \$100.00**

A Certificate of Fitness may be revoked or cancelled because of the applicants' inability to comply with the provisions of the code, inadequate or inappropriate workmanship or false statements and misrepresentations.

**ATTACHMENT 8**



**FIRE OFFICIAL'S OFFICE**

4975 DeMoss Road, Reading, PA 19606, (610)-779-4888

[www.exetertownship.com](http://www.exetertownship.com)

**DEPARTMENT OF FIRE CODES & INSPECTIONS**

**CONTRACTOR'S CERTIFICATE OF FITNESS APPLICATION**

**NEW** \_\_\_\_\_

**RENEWAL** \_\_\_\_\_

**License #** \_\_\_\_\_  
(FOR DEPT USE ONLY)

APPLICATION DATE: \_\_\_\_\_

**BUSINESS INFORMATION**

BUSINESS NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

EMERGENCY CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_

NUMBER OF YEARS IN BUSINESS: \_\_\_\_\_ NUMBER OF EMPLOYEES: \_\_\_\_\_

Primary type of contracting done by your firm:

Sprinkler / Standpipe: \_\_\_\_\_ Hood / Duct Installers: \_\_\_\_\_ Tanks (Install/removal): \_\_\_\_\_

Monitoring: \_\_\_\_\_ Fire suppression systems: \_\_\_\_\_ Automatic Fire alarm/detection: \_\_\_\_\_

Blasting: \_\_\_\_\_ Demolition: \_\_\_\_\_ Fireworks \_\_\_\_\_ Fire Extinguishers: \_\_\_\_\_ Other: \_\_\_\_\_

**OWNER INFORMATION**

OWNER NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

**INSURANCE INFORMATION**

INSURANCE COMPANY NAME: \_\_\_\_\_

AGENT NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

INS POLICY NO.: \_\_\_\_\_ INS LIABILITY AMT: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_

WORKERS COMPENSATION POLICY NO.: \_\_\_\_\_ EXP DATE: \_\_\_\_\_

**(A copy of Certificate of Insurance MUST BE SUBMITTED with this application)**

