



Fire Department – Fire Prevention Inspection Services

HIGH RISE STRUCTURE

Fire Inspection Program





Meeting Agenda

Fire Department – Fire Prevention Inspection Services

- Fire Prevention Mission
- **High Rise Fire Inspection Program**
- Question and Answer

Fire Chief

Bertral Washington



Our Mission

Deputy Fire Marshal Anthony J. Bagan





Fire Department Mission

Fire Department – Fire Prevention Inspection Services

The mission of the Pasadena Fire Department is to provide protection of life, property, and the environment from the effects of fires, medical emergencies, and hazards



Fire Department Mission

Fire Department – Fire Prevention Inspection Services

Community Risk Reduction





A need for Fire Prevention

Fire Department – Fire Prevention Inspection Services





A Need for Fire Prevention

Fire Department – Fire Prevention Inspection Services





Statistics By Occupancy Class - National

Fire Department – Fire Prevention Inspection Services

**Structure Fires by Occupancy
2007-2011 Annual Averages**

Occupancy	Fires		Civilian Deaths		Civilian Injuries		Direct Property Damage (in Millions)	
1 - Assembly	14,650	(3%)	5	(0%)	173	(1%)	\$425	(4%)
2 - Educational	5,690	(1%)	1	(0%)	85	(1%)	\$92	(1%)
3 - Health Care, Detention & Correction	6,820	(1%)	5	(0%)	172	(1%)	\$57	(1%)
4 - Residential	392,800	(79%)	2,696	(96%)	13,754	(90%)	\$7,605	(71%)
5 - Mercantile, Business	17,740	(4%)	22	(1%)	325	(2%)	\$810	(8%)
6 - Industrial, Utility, Defense, Agriculture, Mining	2,860	(1%)	4	(0%)	51	(0%)	\$232	(2%)
7 - Manufacturing, processing	5,300	(1%)	7	(0%)	170	(1%)	\$593	(6%)
8 - Storage	21,770	(4%)	30	(1%)	283	(2%)	\$614	(6%)
9 - Outside or special property	22,330	(4%)	15	(1%)	113	(1%)	\$81	(1%)
Unclassified, unreported, and unknown	8,540	(2%)	13	(0%)	94	(1%)	\$142	(1%)
Totals	498,500	(100%)	2,798	(100%)	15,221	(100%)	\$10,650	(100%)

'Structure Fire By Occupancy 2007-2011 Annual Averages', NFPA April 2013



Statistics for 2014 - Fires

Fire Department – Fire Prevention Inspection Services



City of Pasadena

- Total Incidents 18,279
- 264 Fires (all fires)
- 0 Deaths
- 0 Injuries
- \$2,560,443 in Property Loss

National ratio of fires per capita (per 1,000) = 4.4

Pasadena ratio of fire per capita (per 1,000) = 1.9

'Firehouse NIFRS' City of Pasadena Fire Department

*'National Fire Protection Association' NFPA Fire Statistics 2014 /
<http://www.nfpa.org/research/reports-and-statistics/fires-in-the-us>*



Statistics for 2014 – High Rise Incidents



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City of Pasadena - 2014

- 1 Fire (.38%)
- 0 Deaths
- 0 Injuries
- \$30,000 Property Loss
- Office Building

National - 2007-2011

- 15,400 Fires
- 46 Civilian Deaths
- 530 Civilian Injuries
- \$219 million Property Loss
- Occupancy classes
 - > Apartments 45%
 - > Hotels 3%
 - > Office Buildings 2%
 - > Facilities that care for the sick 1%
 - > Remainder – Mixed Use

'Firehouse NIFRS' City of Pasadena Fire Department

'National Fire Protection Association' NFPA Fire Statistics 2014 / <http://www.nfpa.org/research/reports-and-statistics/fires-in-the-us>



Fire Prevention and Environmental Safety Division Mission

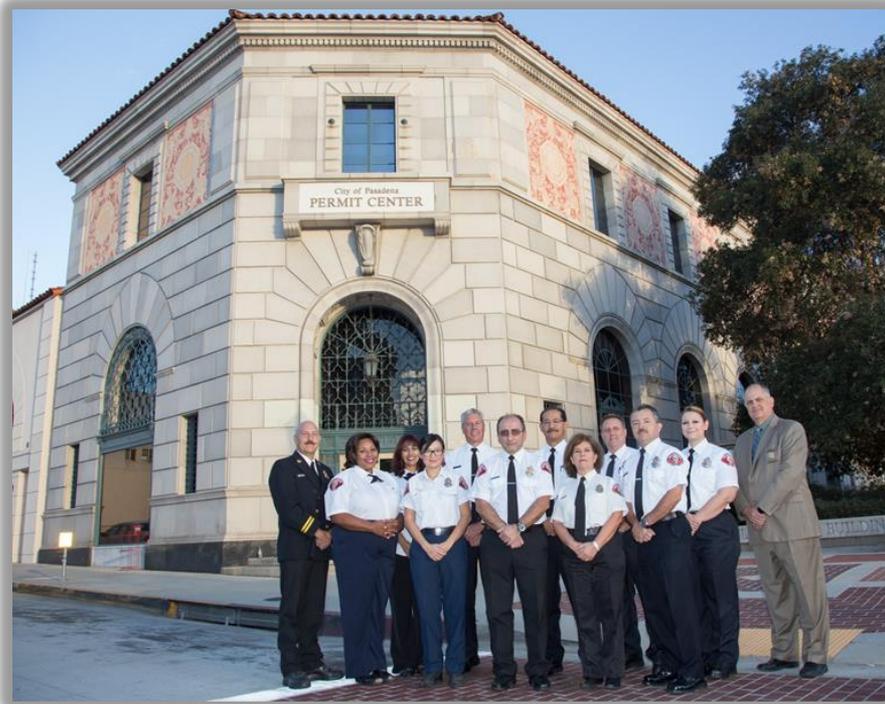
Fire Department – Fire Prevention Inspection Services

- To prevent injury to people and prevent damage to the natural and built environment within the City of Pasadena. We use a customer-centered approach to public education, plan review, code development, and inspections.
- The fire department is responsible for the safety and preservation of the built environment.
 - > Pasadena City Charter (Established the Pasadena Fire Department)
 - > California Health and Safety Code (Grants the authority to enforce codes and establish ordinances)
 - > You share in the responsibility
 - > Risk Management is a PARTNERSHIP
- How do we do this?



Fire Prevention and Environmental Safety Division

Fire Department – Fire Prevention Inspection Services



- Fire Prevention Inspections
 - > New Construction
 - > Permits
 - > Plan Check
 - > Routine Fire Inspections
- Hazardous Materials Management
- Public Education
- Fire Investigation



Your 'Fire Inspector'

Fire Department – Fire Prevention Inspection Services

- Professional Fire Inspector
- Training, Education, Experience
- 40-hour/week employee
- Permit Center (Hale Building – 175 North Garfield)
- Direct Report to the Deputy Fire Marshal
- Assignments are program specific



High Rise Occupancy Inspection Program

Fire Inspector Luis A. Jaramillo





High Rise Occupancy - Program Overview

Fire Department – Fire Prevention Inspection Services

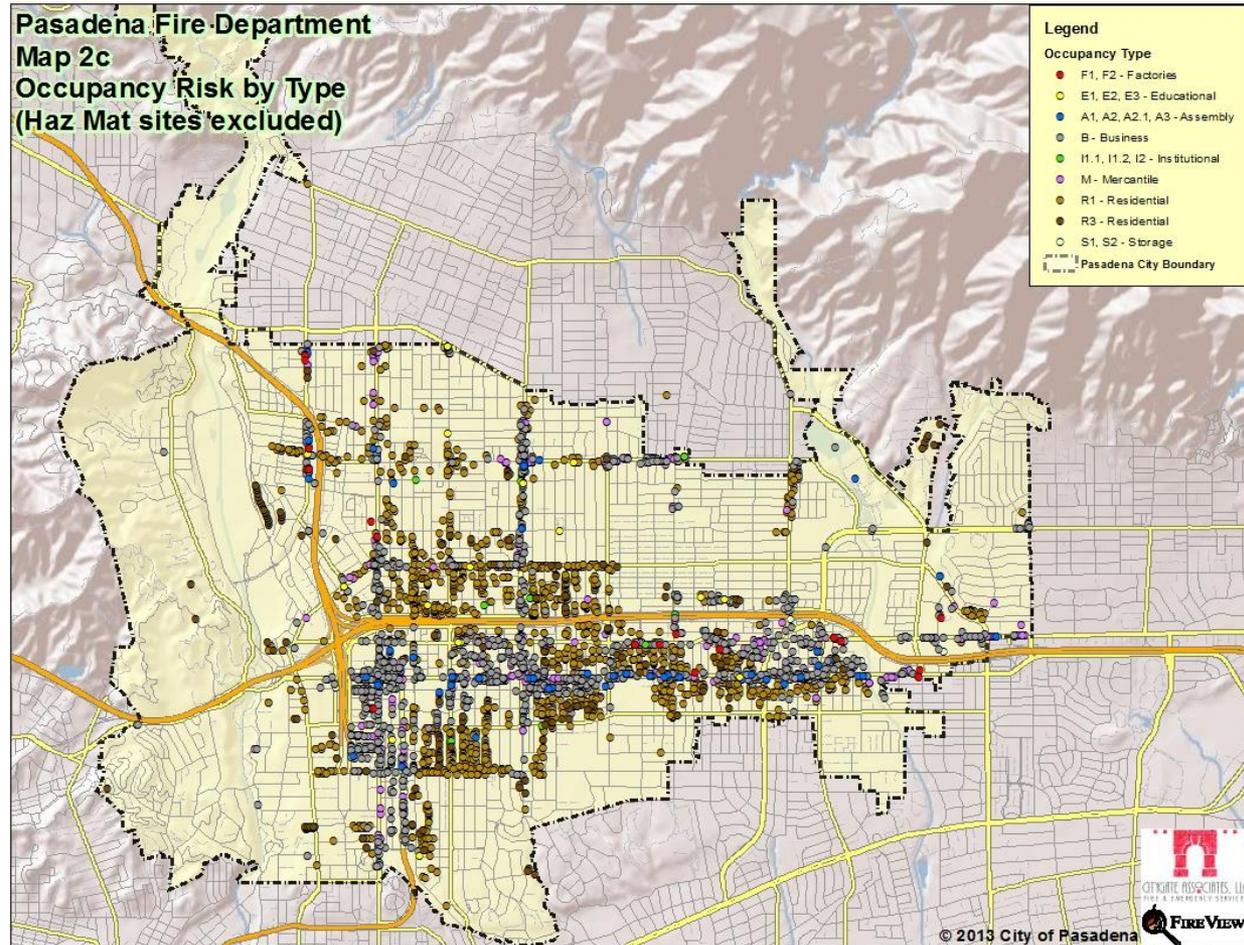
- High Rise Occupancy Definition
- Codes, Standards and Ordinances
- Inspection Type and Frequency
- The Inspection
- Inspection Check-List
- Common Deficiencies
- Permits
- Fees
- Non-Compliance



Occupancy Inventory

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- 420 Assembly Occupancies
- 2,618 Business, Mercantile, Factory and Storage
- 1,316 Residential (Apartments, condo's, hotels, motels)
- **43 High Rise structures**
 - > Multiple occupancy classifications





High Rise Defined (CFC 202)

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- **High-rise structure.** *Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet above the lowest floor level having building access, except buildings used as hospitals as defined in H&S Code Section 1250.*
- **Existing high-rise structure.** *A high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.*
- **New high-rise structure.** *A high-rise structure, the construction of which is commenced on or after July 1, 1974.*



High Rise Building Access Defined

CBC 202

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- **High-Rise Building Access.** *An exterior door opening conforming to all of the following:*
 1. *Suitable and available for fire department use.*
 2. *Located not more than 2 feet above adjacent ground level.*
 3. *Leading to a space, room or area having foot traffic communication capabilities with the remainder of the building.*
 4. *Designed to permit penetration through the use of fire department forcible entry tools and equipment unless other approved arrangements have been made with the fire authority having jurisdiction.*



Codes, Standards & Ordinances

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- California Fire Code
- California Building Code
- Pasadena Municipal Code
- California Code of Regulations - Title 19
- National Fire Protection Association
- Health & Safety Code



Inspection Type and Frequency

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- **Types of Inspections**
 - > New Construction/Tenant Improvement
 - > Fire & Life Safety
 - > Permit Operations
 - > Special Events

- **Frequency**
 - > New Construction/Tenant Improvement– As Required
 - > Assembly Occupancies Inspected Annually
 - > High Rise Occupancies – Inspected Annually
 - > Permit Operations- Inspected Annually or As Needed
 - > Special Events – Event Driven



The Inspection

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- Introduction to Designee Upon Arrival
- Inspection
 - > Designee to Accompany Inspector
- Provide Proper Contact Information
 - > Name, Address, Phone, & E-mail
 - Building Owner
 - Business Owner/Manager
 - In Case of Emergency



The Inspection

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- Access to All Areas of Facility
- Bring Pen and Paper to Take Notes
- Identify and Explain All Violations
- Documentation
 - > Maintain all fire protection and life safety system test and maintenance certifications ready for the inspector to review if applicable.
 - > Written Notification of Violations Noted





Inspection Check-List

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1. Fire Department Access/Address. CFC Chapter 5
2. Extinguishers and alt. automatic extinguishing systems. CFC Chapter 9
3. Exiting. CFC Chapter 10
4. Electrical. CFC Chapter 6
5. Fire Protection Systems. CFC Chapter 9
6. Fire-resistance-rated-construction. CFC Chapter 7
7. Permits. CFC Chapter 1 and 9



Inspection Check-List - Access

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- Address numbers
- Access/Knox Box





Inspection Check-List - Access

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- Fire Lanes.
- FDC's & Equipment





Inspection Check-list - Extinguishers

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- In Place Where Required
- Properly Mounted
- Properly Identified
- Accessible
- Serviced and Tagged



2A 10BC Rating

PASADENA



Inspection Check-list - Exiting

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- Exit Signs and illumination



Self luminous 10-20 years



Internally illuminated



Photoluminescent 25yrs

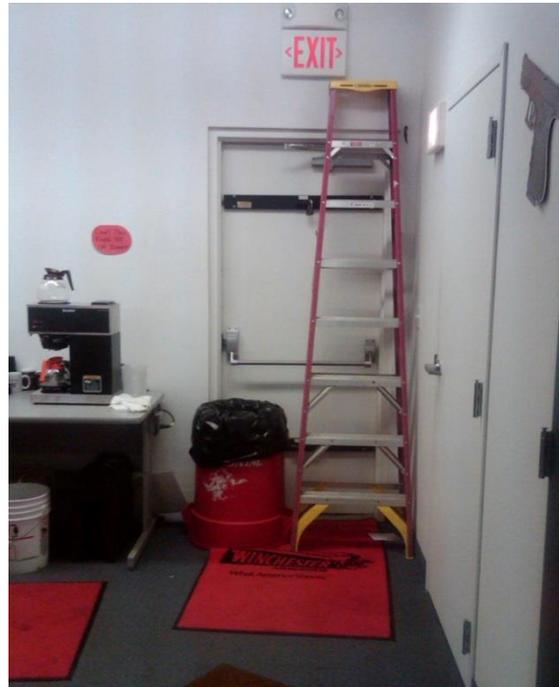


Inspection Check-list - Exiting

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- Exiting System / Means of Egress
 - > Aisles and Access
 - > Unobstructed access to the public way
 - Aisles
 - Corridors
 - Stairs
 - Outside

 - Illumination
 - Generator
 - Battery
 - UPS

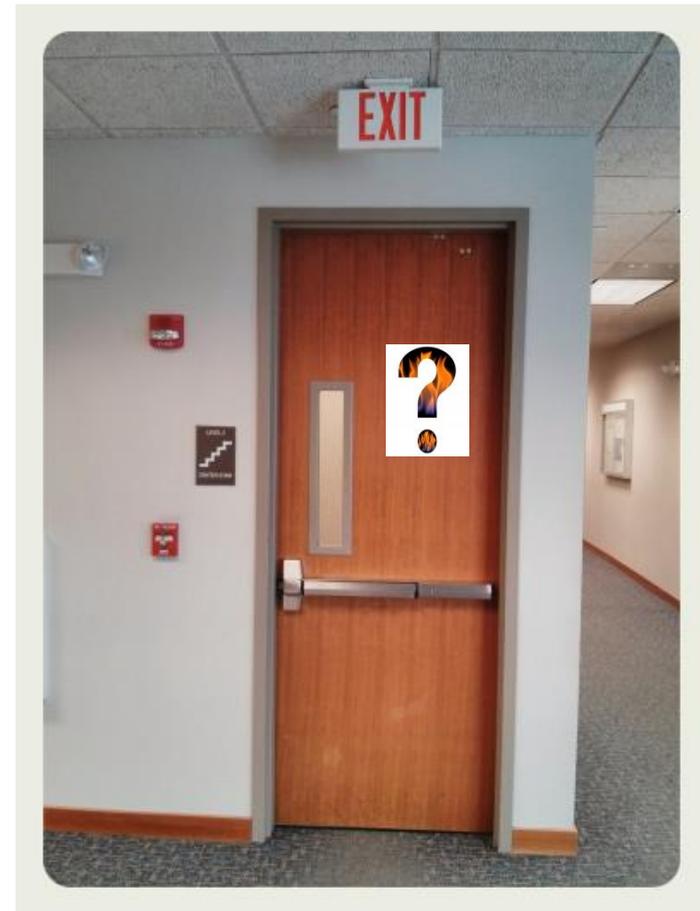




Inspection Check-list - Exiting

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- Exit Door Functionality
 - > Hardware
 - > Swing
 - > Locked stairwell doors





Inspection Check-list - Housekeeping

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- Storage

- > Ceiling Clearance

- 18” below sprinkler head if building is equipped with fire sprinklers
 - 24” below the ceiling in non-sprinklered buildings

- > Clearance from Electrical Panels, 36”





Inspection Check-list - Electrical

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- **Extension Cords**
 - > Temporary
 - > 90-days Max
 - > Wear and Tear
 - > Not Allowed to Take the Place of Permanent Wiring
- **Multi-plug Adapters**
 - > UL Listed
 - > Plugged Directly into Wall
 - > Cube, unfused, not CEL compliant are prohibited





Inspection Check-list – Fire Protection Systems

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System



- Fire Alarm
- CSSS
- Fire doors, dampers, shutters
- Sprinkler sys.
- Standpipes/hose
- Nozzles, couplings & fittings
- Fire Pumps

Test Standard

NFPA 72, 70

NFPA 72, 70

NFPA 80, 72

NFPA 25, 13

NFPA 25, 14

NFPA 1962

NFPA 25, 20



Inspection Check-list - Fire Protection Systems

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System	Standard
• Water Tanks	NFPA 25, 22
• PRV's, reducing & restricting	NFPA 25, 13
• E-power	NFPA 110,111, CFC 604
• Smoke control	NFPA 92
• Alternative extinguishing systems:	CFC 901.6.1
• Elevator Recall CCR Title 8, Div. 1, Chap. 4 subchap. 6, elevator safety orders, CFC 11 & 607	



Inspection Check-list- Approved forms

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- [CA State Fire Marshal test forms](#)
- NFPA 72 Fire alarm
- Pasadena Fire Department forms.
- Property owners & managers e-mail forms to ljaramillo@cityofpasadena.net
- For service providers, preferred method is www.inspectionreportsonline.net



Inspection Check-list- Approved forms

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- What is Pasadena Inspection Reports on Line
 - Web based report management system
 - Currently used by Pasadena Fire Department
 - Voluntary use by Service Providers
 - Location, receive, manage, file and share reports
 - Automatic deficiency notification
 - Direct and real-time communication with SP and AHJ



Inspection Check-list – Hazardous Materials

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- Permit Required
- Storage of Compressed Gas
 - > Carbon Dioxide
 - > Nitrogen
 - > Helium
 - > Propane



Kim Yu
Hazardous Materials
(626)744-7193



Inspection Check list-Common deficiencies

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- Combustible storage in machinery, electric and boiler rooms.
- Fire doors propped open.



- Penetrations not sealed.





Inspection Check-list – Occupant Load

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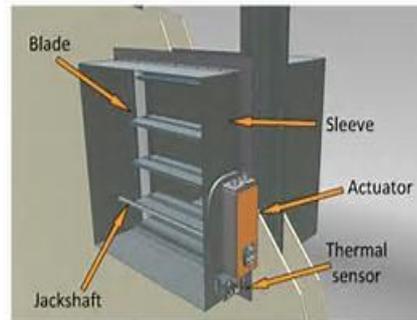
- Occupant Load Sign for Assembly occupancies and assembly rooms with 50 or more people.
 - > Contrasting Color
 - > Conspicuous Location Near Main Exit
 - > Number of Occupants Permitted for Room Use



Fire Resistive Rated Construction

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- Opening protection and listed rating.
- Hinged swinging fire door assemblies
- Vertical rolling fire assemblies
- Sliding fire door assemblies
- Fire/smoke dampers
- Fire shutters





Fire Resistive Rated Construction

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- **TEST REQUIREMENTS**
- **Fire doors & Window assemblies**
Swinging, horizontal sliding,
vertically sliding & rolling
Acceptance test and annual test required.
- **Fire dampers, Fire/Smoke dampers**
Upon installation an operational test is required.
After one year, then every 4 years thereafter. Except Hospitals, 6 yrs





Fire Resistive Rated Construction

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- Approved listed rated products



?

PASADENA



Emergency Planning CFC Chap. 4

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Evacuation plans are required for:

- Group A, with exception.
- Group B, with total occupant load of 500 or more persons or more than 100 above or below lowest level of exit discharge.
- Group E, Group F, same as “B”, Group H, Group I
- Group R-1, R-2 college and university buildings.
- Group R-4
- High-rise buildings
- Emergency evacuation drills are required.
- Frequency, minimum annually, see CFC 405.2



Permits Required (CFC 105.1)

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- Permits Required

Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done, shall first make application to the fire code official and obtain the required permit.



Permits Required (CFC 105.1)

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- Two types of permits
 1. Operational permit allows applicant to conduct an operation or business for which a permit is required.
 2. Construction permit allows the applicant to install or modify systems and equipment for which permits are required.



Post-Inspection Follow-up

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- Re-Inspection Timeline
 - > Dependent on Violation Type
 - 2-Weeks
 - 4-Weeks
 - > Some Code Violations Will Require **Immediate Action**
 - Blocked / Locked exits
 - Non-functioning Fire Protection Systems - **FIRE WATCH**
 - Non-permitted or Unsafe Operations



Inspection Fees and Fines

FY 2015 General Fee Schedule Adopted

Fire Department – Fire Prevention Inspection Services

- **Inspection Fees**

- > *\$111.00/hour

Initial Inspection + Re-Inspections

- **Permit Fees**

- > Processing Fee

- \$111.00/hour



Non-Compliance

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- **Non-Compliance May Result In:**
 - > Re-inspection Fees
 - > Administrative Citation(s)
 - » Re-inspection Fines \$106-\$1,072
 - » Per violation
 - > Criminal Citation(s)
 - Fines and Penalties
 - Court Appearance
 - > Suspension or Revoking Operational Permits
 - Notification to other agencies: Health Department, Building and Safety, Police Department, AQMD, Business Licensing





Scheduling an Inspection

Fire Department – Fire Prevention Inspection Services

- **Appointments / Scheduled Inspections**
 - > E-mail ljaramillo@cityofpasadena.net
 - > (626) 744-7189
- **Impromptu**
 - > During Normal Business Hours
 - > No Negative Impact on Operations



Thank you

Fire Department – Fire Prevention Inspection Services

PASADENA FIRE DEPARTMENT



SERVING THE CITY OF PASADENA FOR 125 YEARS