

# Pagosa Fire Protection District

## Pre-Fire Safety Plan for Construction, Alteration, or Demolition

### Based upon 2015 IFC Chapter 33: Fire Safety During Construction & Demolition

*You must have a Pre-fire Safety Plan submitted to the Fire Marshal and approved before construction, demolition, or alteration occurs on any project. The Pre-fire Safety Plan must comply with Chapter 33 of the 2015 International Fire Code.*

Chapter 33 addresses the following items:

- Temporary Heating Equipment
- Precautions Against Fire
- Flammable & Combustible Liquids
- Flammable Gases
- Explosive Materials
- Owner's Responsibility for Fire Protection
- Fire Reporting
- Access for Firefighting
  - Means of Egress
  - Water Supply for Fire Protection
- Standpipes
- Automatic Sprinkler System
- Portable Fire Extinguishers
- Motorized Construction Equipment
- Safeguarding Roofing Operations

These items need to be addressed in detail; some items may or may not apply to your project. Attach any supporting documents needed.

*By signing this document, you agree that you have covered the above items in detail and to the best of your ability as they relate to your project. You agree that you have read and will be in compliance with Chapter 33 of The International Fire Code. If it is found that you are not in compliance with Chapter 33 of The IFC or if you are not following your Pre-fire Safety plan, your permit will be revoked, and all work must cease immediately.*

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## **Chapter 33: Fire Safety During Construction and Demolition**

### **Section 3301 General**

#### 3301.1 Scope

This chapter shall apply to structures in the course of construction, alteration or demolition, including those in underground locations. Compliance with NFPA 241 is required for items not specifically addressed herein.

#### 3301.2 Purpose

This chapter prescribes minimum safeguards for construction, alteration and demolition operations to provide reasonable safety to life and property from fire during such operations.

### **Section 3302 Definitions**

#### 3302.1 Terms Defined in Chapter 2

Words and terms used in this chapter and defined in Chapter 2 shall have the meanings ascribed to them as defined therein.

### **Section 3303 Temporary Heating Equipment**

#### 3303.1 Listed

Temporary heating devices shall be listed and labeled per the International Mechanical Code or the International Fuel Gas Code. Installation, maintenance, and use of temporary heating devices shall be under the terms of the listing.

#### 3303.2 Oil-Fired Heaters

Oil-fired heaters shall comply with Section 603.

#### 3303.3 LP-gas Heaters

Fuel supplies for liquefied-petroleum gas-fired heaters shall comply with Chapter 61 and the International Fuel Gas Code.

#### 3303. Refueling

Refueling operations for liquid-fueled equipment or appliances shall be conducted in accordance with Section 5705. The equipment or appliance shall be allowed to cool prior to refueling.

#### 3303.5 Installation

Clearance to combustibles from temporary heating devices shall be maintained in accordance with the labeled equipment. When in operation, temporary heating devices shall be fixed in place and protected from damage, dislodgement or overturning in accordance with the manufacturer's instructions.

#### 3303.6 Supervision

The use of temporary heating devices shall be supervised and maintained only by competent personnel.

## Section 3304 Precautions Against Fire

### 3304.1 Smoking

Smoking shall be prohibited except in approved areas. Signs shall be posted in accordance with Section 310. In approved areas where smoking is permitted, approved ashtrays shall be provided in accordance with Section 310.

### 3304.2 Combustible Debris, Rubbish and Waste

Combustible debris, rubbish and waste material shall not be accumulated within buildings.

#### 3304.2.1 Combustible Waste Material Accumulation

Combustible debris, rubbish and waste material shall not be accumulated within buildings.

#### 3304.2.2 Combustible Waste Material Removal

Combustible debris, rubbish and waste material shall be removed from buildings at the end of each shift of work.

#### 3304.2.3 Rubbish Containers

Where rubbish containers with a capacity exceeding 5.33 cubic feet (40 gallons) (0.15 m<sup>3</sup>) are used for temporary storage of combustible debris, rubbish, and waste material, they shall have tight-fitting or self-closing lids. Such rubbish containers shall be constructed entirely of materials that comply with either of the following:

- Noncombustible materials
- Materials that meet a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> when tested per ASTM E1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation.

#### 3304.2.4 Spontaneous Ignition

Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.

### 3304.3 Burning of Combustible Debris, Rubbish and Waste

Combustible debris, rubbish and waste material shall not be disposed of by burning on the site unless approved.

### 3304.4 Open Burning

Open burning shall comply with Section 307.

### 3304.5 Fire Watch

Where required by the fire code official for building demolition, or building construction during working hours that is hazardous in nature, qualified personnel shall be provided to serve as an on-site fire watch. Fire watch personnel shall be provided with not less than one approved means for notification of the fire department and their sole duty shall be to perform constant patrols and watch for the occurrence of fire.

### 3304.6 Cutting and Welding

Operations involving the use of cutting and welding shall be done in accordance with Chapter 35.

### 3304.7 Electrical

Temporary wiring for electrical power and lighting installations used in connection with the construction, alteration or demolition of buildings, structures, equipment or similar activities shall comply with NFPA 70.

## **Section 3305 Flammable and Combustible Liquids**

### 3305.1 Storage of Flammable and Combustible Liquids

Storage of flammable and combustible liquids shall be in accordance with Section 5704.

### 3305.2 Class I and Class II Liquids

The storage, use and handling of flammable and combustible liquids at construction sites shall be in accordance with Section 5706.2. Ventilation shall be provided for operations involving the application of materials containing flammable solvents.

### 3305.3 Housekeeping

Flammable and combustible liquid storage areas shall be maintained clear of combustible vegetation and waste materials. Such storage areas shall not be used for the storage of combustible materials.

### 3305.4 Precautions Against Fire

Sources of ignition and smoking shall be prohibited in flammable and combustible liquid storage areas. Signs shall be posted in accordance with Section 310.

### 3305.5 Handling at Point of Final Use

Class I and II liquids shall be kept in approved safety containers.

### 3305.6 Leaking and Spills

Leaking vessels shall be immediately repaired or taken out of service and spills shall be cleaned up and disposed of properly.

## **Section 3306 Flammable Gases**

### 3306.1 Storage and handling

The storage, use and handling of flammable gases shall comply with Chapter 58.

### 3306.2 Cleaning with Flammable Gas

Flammable gases shall not be used to clean or remove debris from piping open to the atmosphere.

#### 3306.2.1 Pipe Cleaning and Purging

The cleaning and purging of flammable gas piping systems, including cleaning new or existing piping systems, purging piping systems into service and purging piping systems out of service, shall comply with NFPA 56.

Exceptions:

- Compressed gas piping systems other than fuel gas piping systems where in accordance with Chapter 53.
- Piping systems regulated by the International Fuel Gas Code.

## **Section 3307 Explosive Materials Section**

### **3307.1 Storage Handling**

Explosive materials shall be stored, used and handled in accordance with Chapter 56.

### **3307.2 Supervision**

Blasting operations shall be conducted in accordance with Chapter 56.

### **3307.3 Demolition Using Explosives**

Approved fire hoses for use by demolition personnel shall be maintained at the demolition site whenever explosives are used for demolition. Such fire hoses shall be connected to an approved water supply and shall be capable of being brought to bear on post-detonation fires anywhere on the site of the demolition operation.

## **Section 3308 Owner's Responsibility for Fire Protection**

### **3308.1 Program Superintendent**

The owner shall designate a person to be the fire prevention program superintendent who shall be responsible for the fire prevention program and ensure that it is carried out through completion of the project. The fire prevention program superintendent shall have the authority to enforce the provisions of this chapter and other provisions as necessary to secure the intent of this chapter. Where guard service is provided, the superintendent shall be responsible for the guard service.

### **3308.2 Pre-fire Plans**

The fire prevention program superintendent shall develop and maintain an approved pre-fire plan in cooperation with the fire chief. The fire chief and the fire code official shall be notified of changes affecting the utilization of information contained in such pre-fire plans.

### **3308.3 Training**

Training of responsible personnel in the use of fire protection equipment shall be the responsibility of the fire prevention program superintendent.

### **3308.4 Fire Protection Devices**

The fire prevention program superintendent shall determine that all fire protection equipment is maintained and serviced in accordance with this code. The quantity and type of fire protection equipment shall be approved.

### **3308.5 Hot Work Operations**

The fire prevention program superintendent shall be responsible for supervising the permit system for hot work operations in accordance with Chapter 35.

### **3308.6 Impairment of Fire Protection Systems**

Impairments to any fire protection system shall be in accordance with Section 901.

### **3308.7 Temporary Covering of Fire Protection Devices**

Coverings placed on or over fire protection devices to protect them from damage during construction processes shall be immediately removed upon the completion of the construction processes in the room or area in which the devices are installed.

## **Section 3309 Fire Reporting**

### **3309.1 Emergency Telephone**

Readily accessible emergency telephone facilities shall be provided in an approved location at the construction site. The street address of the construction site and the emergency telephone number of the fire department shall be posted adjacent to the telephone.

## **Section 3310 Access for Fire Fighting**

### **3310.1 Required Access**

Approved vehicle access for fire fighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

### **3310.2 Key Boxes**

Key boxes shall be provided as required by Chapter 5.

## **Section 3311 Means of Egress**

### **3311.1 Stairways Required**

Where a building has been constructed to a building height of 50 feet or four stories, or where an existing building exceeding 50 feet in building height is altered, not less than one temporary lighted stairway shall be provided unless one or more of the permanent stairways are erected as the construction progresses.

### **3311.2 Maintenance**

Required means of egress shall be maintained during construction and demolition, remodeling or alterations and additions to any building.

Exception:

- Approved temporary means of egress systems and facilities.

## **Section 3312 Water Supply for Fire Protection**

### **3312.1 Where Required**

An approved water supply for the fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site.

## **Section 3313 Standpipes**

### **3313.1 Where Required**

In buildings required to have standpipes by Section 905.3.1, not less than one standpipe shall be provided for use during construction. Such standpipes shall be installed prior to construction exceeding 40 feet in height above the lowest level of fire department vehicle access. Such standpipe shall be provided with fire department hose connections at accessible locations adjacent to useable stairways. Such standpipes shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

#### 3313.2 Buildings being Demolished

Where a building is being demolished and a standpipe is existing within such a building, such standpipe shall be maintained in an operable condition to be available for use by the fire department. Such a standpipe shall be demolished with the building but shall not be demolished more than one floor below the floor being demolished.

#### 3313.3 Detailed Requirements

Standpipes shall be installed in accordance with the provisions of Section 905.

#### Exception:

- Standpipes shall be either temporary or permanent in nature, and with or without a water supply, provided that such standpipes comply with the requirements of Section 905 as to capacity, outlets and materials.

### **Section 3314 Automatic Sprinkler System**

#### 3314.1 Completion Before Occupancy

In buildings where an automatic sprinkler system is required by this code or the International Building Code, it shall be unlawful to occupy any portion of a building or structure until the automatic sprinkler system installation has been tested and approved, except as provided in Section 105.3.4

#### 3314.2 Operation of Valves

Operation of sprinkler control valves shall be allowed only by properly authorized personnel and shall be accompanied by notification of duly designated parties. Where the sprinkler protection is being regularly turned off and on to facilitate connection of newly completed segments, the sprinkler control valves shall be checked at the end of each work period to ascertain that protection is in service.

### **Section 3315 Portable Fire Extinguishers**

#### 3315.1 Where Required

Structures under construction, alteration or demolition shall be provided with not less than one approved portable fire extinguisher in accordance with Section 906 and seized for not less than ordinary hazard as follows:

- At each stairway on all floor levels, where combustible materials have accumulated.
- In every storage and construction shed.
- Additional portable fire extinguishers shall be provided where special hazards exist, including, but not limited to, the storage and use of flammable and combustible liquids.

### **3316.1 Conditions of Use**

Internal-combustion-powered construction equipment shall be used in accordance with all of the following conditions:

- Equipment shall be located so that exhausts do not discharge against combustible material.
- Exhausts shall be piped to the outside of the building.
- Equipment shall not be refueled while in operation.
- Fuel for equipment shall be stored in an approved area outside of the building.

### **Section 3317 Safeguarding Roofing Operations**

#### **3317.1 General**

Roofing operations utilizing heat-producing systems or other ignition sources shall be conducted in accordance with Sections 3317.2 and 3317.3 and Chapter 35.

#### **3317.2 Asphalt and Tar Kettles**

Asphalt and Tar Kettles shall be operated in accordance with Section 303.

#### **3317.3 Fire Extinguishers for Roofing Operations**

Fire extinguishers shall comply with Section 906. There shall be not less than one multipurpose portable fire extinguisher with a minimum 3-A 40-B:C rating on the roof being covered or repaired.