

## **TABLE OF CONTENTS**

### **SECTION 1 --- GENERAL**

- 1.1 Scope.
- 1.2 Purpose.

### **SECTION 2 --- DEFINITIONS**

- 2.1 Fireworks
- 2.2 Fireworks, 1.3G.
- 2.3 Fireworks, 1.4G.
- 2.4 Low Explosive.
- 2.5 Pyrotechnic Operator; Pyrotechnics Special Effects Operator; Flame Effects Operator.
- 2.6 Pyrotechnic special effects material.
- 2.7 Standby Personnel.

### **SECTION 3 --- GENERAL INFORMATION**

- 3.1 Permit extension
- 3.2 Materials used for fireworks
- 3.3 Persons handling the display
- 3.4 Theatrical Pyrotechnic Displays.
- 3.5 Type of Fireworks to be used.

### **SECTION 4 --- REQUIREMENTS**

- 4.1 Prohibition.
- 4.2 Permits.
- 4.3 Standby Personnel.
- 4.4 Site Plan.
- 4.5 Bond.
- 4.6 State Permit
- 4.7 Licenses Required
- 4.8 Demonstration and Approval.
- 4.9 Storage Magazines.
- 4.10 Security and barriers.
- 4.11 Display discontinued.

### **REFERENCES**

## **SECTION 1 --- GENERAL**

### **1.1 Scope.**

Fireworks displays on the University of Houston campus shall be in accordance with this standard.

### **1.2 Purpose.**

This standard shall provide guidelines for Pyrotechnic Operators and Inspectors in the use and setting up of indoor and outdoor Fireworks Displays. Displays may be either aerial or non-aerial displays.

## **SECTION 2 --- DEFINITIONS**

### **2.1 Fireworks.**

Fireworks are a combustible or explosive composition, or any substance, combination of substances, or device prepared for the purpose of producing a visible or audible effect by combustion, explosion, deflagration or detonation. Fireworks include but are not limited to: blank cartridges, toy pistols, toy cannons, toy canes, or toy guns, in which explosives are used; firecrackers, torpedoes, sky-rockets, Roman candles, sparklers, or other devices of like construction; any devices containing an explosive or flammable compound; or any tablet or other device containing an explosive substance. Fireworks do not include auto flares; paper caps containing an average of 0.25 grains of explosive content per cap or less; and toy pistols, toy canes, toy guns, or other devices for use of such caps.

### **2.2 Fireworks, 1.3G.**

"Fireworks 1.3G" means a large fireworks device:

- (A) Primarily designed to produce visible or audible effects by combustion, deflagration, or detonation; and
- (B) Classified as a 1.3G explosive by the department in 49 C.F.R. Part 173 (1996).

### **2.3 Fireworks, 1.4G.**

"Fireworks 1.4G" means a small fireworks device:

- (A) Primarily designed to produce visible or audible effects by combustion, deflagration, or detonation;
- (B) That complies with the construction, labeling, and chemical composition requirements of the United States Consumer

#### **2.4 Low Explosive.**

"Low Explosive", is explosive material, which will burn or deflagrate when ignited. It is characterized by a reaction rate that is less than the speed of sound. Examples of low explosives are black powder, safety fuse, igniters, igniter cord; fuse lighters; 1.3G fireworks; 1.3G composite solid propellants and fireworks defined as 1.4G Explosives, as defined by the DOT.

#### **2.5 Pyrotechnic Operator; Pyrotechnics Special Effects Operator; Flame Effects Operator.**

A Pyrotechnic Operator, Pyrotechnics Special Effects Operator or a Flame Effects Operator, respectively, are individual(s) approved by the Fire Marshal to be responsible for pyrotechnics, pyrotechnic special effects material, flame effects or any combination thereof, and holds an appropriate and current State of Texas License, issued by the Texas Department of Insurance, in that respective discipline(s).

#### **2.6 Pyrotechnic special effects material.**

Pyrotechnic special effects material is a low explosive material other than detonating cord, commonly used in motion picture, television, theatrical, or group entertainment production for which a permit from the Fire Marshal is required for use or storage.

#### **2.7 Standby Personnel.**

Standby personnel shall be fire inspectors, as certified by the Texas Commission on Fire Protection, who are current members of the University of Houston Fire Marshal's Office, and required by the Fire Marshal to perform standby duties at all fireworks events, as provided for in this standard.

### **SECTION 3 --- GENERAL INFORMATION**

#### **3.1 Permit extension.**

When a permit for fireworks display is issued it shall be for a period of time designated on the permit. The permit shall not be transferable.

#### **3.2 Materials used for fireworks.**

The material to be used for a fireworks display shall not be stored on the University of Houston Campus, but shall be brought in on the day of the display and then shall be taken immediately to the place of display for further handling and storage.

#### **3.3 Persons handling the display.**

The person handling the display of fireworks shall meet all the requirements of the Texas Department of Insurance, "*Texas Occupations Code*", Chapter 2154; the "*Texas Administrative Code*", Title 28 and any other requirements as specified by the Fire Marshal.

### **3.4 Theatrical Pyrotechnic Displays.**

Theatrical Pyrotechnic Displays shall require a permit and the presence of Standby Personnel. A copy of the plans indicating the exact placement of the pyrotechnic displays, and the distances from audience, stage props, scenery, curtains, performers and other items incidental to the theatrical performance, shall accompany each permit application. Exact type of pyrotechnic devices to be used shall be noted. This diagram shall indicate the points at which the pyrotechnic devices are located to be discharged, the fallout radius for each pyrotechnic device used in the performance and the lines behind which the audience shall be restrained. The determination of the necessity of Standby Personnel will be made by the Fire Marshal's Office. See Section 12.4.3.

### **3.5 Type of Fireworks to be used.**

Only "1.4G" and 1.3G" are allowed to be used.

## **SECTION 4 --- REQUIREMENTS**

### **4.1 Prohibition.**

Possession, assembly, sale, purchase, transportation, storage, use, discharge, detonation and handling of fireworks, except for public display by a pyrotechnic operator, licensed in the state of Texas, and operating under an approved permit are prohibited on the University of Houston Campus.

### **4.2 Plans and Permits**

Before the performance of any production, the permit applicant shall submit a plan and a list of proposed materials, for the use of pyrotechnics, to the Fire Marshal's Office. An application for a permit shall be submitted not less than 14 business days prior to event. Permits shall be granted only to an approved pyrotechnic operator according to Section 12.2.5, of this Standard.

### **To Apply for an Aerial or Indoor Pyrotechnics/Fireworks Display Permit**

Submit required permit and attachments in person to:

University of Houston Department of Public Safety  
Fire Marshal's Office, Environmental Health and Life Safety  
4513 Cullen Blvd., Bldg 106, Second Floor, Houston, TX 77204-1005  
Telephone: 713-743-5858  
Website: <http://www.uh.edu/ehls/fire>

#### **4.3 Standby Personnel.**

General requirements for Standby Personnel are as follows:

- 1) There shall be a minimum of two Standby Personnel for all aerial displays.
- 2) There shall be a minimum of one Standby Person for non-aerial (theatrical) displays, additional standby personnel may be required by the Fire Inspector.
- 3) University of Houston DPS special event fees may apply

#### **4.4 Site Plan.**

A copy of the site plan showing the exact placement of launching site, distance to spectators, buildings, tents, fuel pumps, parking and other objects in the vicinity, shall accompany each permit application. Exact type of fireworks to be used shall be noted. The minimum distance required is *70 feet per inch* of size of shells.

#### **4.5 Bond.**

The permit requester shall furnish a bond or certificate of insurance in an amount deemed adequate by the building owner/operator or The Fire Marshal's Office in the event that there is no owner/operator for the payment of damages which could be caused either to a person or persons or to property by reason of the permitted display and arising from acts of the permit requester, agents, employees, or subcontractors.

#### **4.6 State Permit.**

Proof of State Permit application shall be provided. (Requirement for Aerial Display only)

**NOTE:** Chapter 2154 of the *Texas Occupations Code* establishes additional requirements in regards to certain flame effects or pyrotechnics, including requirements for an operator's license and insurance. Applicable provisions of state laws and regulations must be complied with in addition to provisions of the *Fire Code* and this standard.

#### **4.7 Licenses Required.**

Proof of Pyrotechnic Operator License, a Pyrotechnic Special Effects License, or Flames Effects Operators License shall comply with Section 12.2.5 of this Standard.

#### **4.8 Demonstration and Approval.**

A demonstration of pyrotechnic special effects to be used shall be provided for the Fire Inspector a minimum of 24 hours prior to the event as long as a permit has been issued.

#### **4.9 Storage Magazines.**

Approved methods of storage for fireworks shall be provided as indicated:

##### **4.9.1 within Buildings.**

Explosives stored within a building shall not be permitted. All explosives/pyrotechnics will be stored outside in accordance with 12.4.9.2. Explosives/pyrotechnics that are to be used for indoor shows are to be stored outside until a Fire Inspector is on site and the material is being set up for the performance.

##### **4.9.2 Outside of buildings.**

Pyrotechnic special effects material, which is to be stored outdoors shall be stored in a Type 2 or Type 4 magazine. Pyrotechnic special effects material which is classified as a high explosive, including detonating cord and detonators that will mass detonate, such as fuse caps, shall be stored in a Type 2 magazine. When a Type 4 magazine is used for outdoor storage, such storage shall be in a constantly attended location or, if unattended, shall have wheels removed or the magazine immobilized by kingpin locking devices or by other approved security measures. When a quantity in excess of 50 pounds of explosive materials is stored outside of a building, such storage shall be located in accordance with nationally recognized standards.

#### **4.10 Security and barriers.**

The Fire Inspector is authorized to require security personnel and/or rope barriers, fences, signs, or other devices to be installed around the display area to aid in crowd control.

#### **4.11 Display discontinued.**

If the Fire Inspector or the pyrotechnic operator determines that there is a lack of crowd control or that the crowd is in danger, the display shall be immediately discontinued. If any time high winds, weather conditions or the immediate surrounding environment creates a danger, the display shall be stopped, postponed or cancelled until conditions are acceptable to the Fire Inspector.

## **REFERENCES**

1. *Texas Occupations Code*, Chapter 2154
2. *Texas Administrative Code*, Title 28
3. National Fire Protection Association (NFPA) Standard Nos. 160, 1123 and 1126.
4. Section 1, Title 13, Chapter 2154, *Texas Occupations Code*,