



Fire Performance Safety Standard

February 2008

Fire Safety Standards for Fire Performers Working Before an Audience

The fire safety standards and implementation guidelines contained within this document are intended for use as a proposed set of recommended practices for adoption by various Fire Departments in the state of California. These standards were developed by a committee comprised of members of the Los Angeles Fire Performance community in an effort to promote self governance. These standards represent the diverse viewpoints, interests, and experiences of many different types of fire performers. The continuing development of this document brings together members of fire dancing troupes, fire jugglers, fire knife performers, fire breathers, independent fire artists, fire tool manufacturers, flame effect technicians, engineers, and legal counsel to achieve consensus on safety standards that promote sound safety judgment applicable across the spectrum of styles inherent to the fire performance community.

This document is a combination of input from multiple sources including the Nevada Administrative Code, Chapter 477 (State Fire Marshall) §630: Fire Performers, NFPA 160 – Standard for the Use of Flame Effects Before an Audience § 4.1, 4.2, 4.2.2, 5.4.1, 7.1.1, 7.1.2, 7.1.3, 7.2, 7.3, 7.4, 7.4.1, 7.4.2, 7.5.1, 7.5.2, 7.6, 7.7, 7.7.1, 7.8, 7.9, 7.10.1, 7.10.2, 7.10.3, 7.11.2, 8.1.2, 8.2, 11.3.2, 11.4.1, 11.4.2, 11.4.3, and input from the Los Angeles Fire Performance community.

This document is intended as a preliminary proposal for the various fire departments throughout the state of California and should not be considered ready for adoption or directly used for regulatory purposes without appropriate review. As this document contains portions of NFPA 160, use of this document for regulatory purposes is accomplished by reference as per the 2000 edition of the Uniform Fire Code and the 2001 edition of the California Fire Code §101.3.

This document disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the use of, or reliance on the standards or implementation guidelines herein.

Fire Safety Standards Document

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1.0 Purpose

The purpose of this standard shall be to provide minimum requirements for the operation of flame effects by fire performers before an audience.

2.0 Scope

This standard shall provide requirements for the protection of the audience, support personnel, performers, assistants and property where flame effects are used by fire performers.

3.0 Definitions

- 3.1. **Flame Effect Devices:** Manually operated devices without the use of an automatic control system. These devices utilize the combustion of flammable liquids or solids to produce thermal, physical, visual, or audible phenomena before an audience. Examples of flame effect devices include, but are not limited to, burning torches, fire staff, fire hoops or any otherwise hand-held open flame effect that has the illusion of danger.
- 3.2. **Fire Performer:** An entertainer, other performer, or group who performs work for an audience using flame effect devices.
- 3.3. **Flame Effect Assistants:** A person or group who works under the supervision of the fire performer.
- 3.4. **Holding Area:** An area where flame effect materials devices or flame effect materials are held prior to use before an audience.
- 3.5. **Hazard Area:** The area made hazardous by the operation of a flame effect.
- 3.6. **Venue:** The property, facility, building, or room within a building where flame effect is to occur.

4.0 Permit

It is the responsibility of the permit applicant to provide a complete submittal with **enough lead time** prior to the performance date. This allows for review, additional permit information if necessary, site inspection and time for the Fire Performance Permit to reach the Fire Performer prior to the performance date.

4.1. Permit Submittal Requirements

4.1.1. A completed Fire Performance Permit Application with the name of the organization sponsoring the performance including the person in charge and phone numbers.

4.1.2. The date, time and exact location of the performance venue.

4.1.3. A description of the performance venue including:

- Description of the location of the hazard area within the venue
- Whether the performance is indoors or outdoors
- Stage/flooring materials
- Ceiling or overhead clearance
- Any additional site-specific information that may be helpful in determining safety requirements

4.1.4. A description of the performance to include:

- The Fire Performance duration and number of sets
- Approximate square footage of the hazard area
- Flame Effect Devices to be activated on stage
- Fuel
- Number of Fire Performers
- Number of Flame Effect Assistants and description of their roles

4.1.5. A description of the Holding Area to include

- Fuel Station
- Spin-out Area
- Staging Area
- Description & Location of “No Smoking” Signs
- Number and type of Fire Extinguishers
- Description of Fire Tool Extinguishment

4.1.6. Fire Performer must declare own competency and experience.

5.0 Venue

- 5.1. The premises where flame effect devices are operated shall be in a neat and orderly condition.
- 5.2. The Fire Performer shall inspect all areas of the site where flame effect materials and devices are ignited before start-up and after shutdown.
- 5.3. All flame effect materials and devices not in use shall be stored in accordance with applicable codes, standards and any state and local regulations.
- 5.4. All flammable flame effect materials and fueled devices that have been removed from holding areas in anticipation of use shall be stored in a staging area acceptable to the authority having jurisdiction.
- 5.5. All flammable flame effect materials and fueled devices in holding areas shall be secured or supervised.

6.0 Equipment

- 6.1. Flame Effect Devices shall be maintained in good working order.
- 6.2. Flame Effect Devices shall be stored and secured when not in use.
- 6.3. Flame Effect Devices may be inspected at the discretion of the authority having jurisdiction.
- 6.4. Flame Effect Devices shall be tested to verify that they operate in accordance with their designs.
- 6.5. Fire extinguishers of the proper classification and size, as approved by the authority having jurisdiction, shall be readily accessible while the flame effects performance is being conducted.
- 6.6. Suitable methods for extinguishing flame effect devices of the proper classification and size, as approved by the authority having jurisdiction, shall be readily accessible while the flame effects performance is being conducted. This includes, but is not limited to duvetyne, commando cloth, or damp towels.

7.0 Performers

7.1. Protective Clothing

- 7.1.1. The fire performer and flame effect assistants shall be protected by clothing or other means suitable for their exposure to flame effects.
- 7.1.2. Bare skin shall be permitted when the illusion of danger is implicit in the visual effect desired by the performer.

7.2. Fire Performer Qualifications

- 7.2.1. The Fire Performer shall demonstrate competency by experience or training to the authority having jurisdiction when required.

- 7.2.2. The Fire Performer shall be responsible for storage, setup, operations, and teardown of all flame effect materials, devices, equipment and supervision of flame effect assistants.

7.3. Substance Abuse and Safety

- 7.3.1. No person shall use or handle flame effect materials or devices under the influence of the following:
- Intoxicating beverages
 - Narcotics or controlled substances
 - Prescription drugs and/or non-prescription drugs that can impair judgment

8.0 Procedures

8.1. Pre-Show

- 8.1.1. When required, a walk-through or representative demonstration of the flame effect devices shall be provided to the authority having jurisdiction.
- 8.1.2. The safety plan shall be in accordance with a verbal plan approved by the authority having jurisdiction, when required.
- 8.1.3. The Fire Performer shall advise all performers and flame effect assistants that they are exposed to a potentially hazardous situation when performing or otherwise carrying out their responsibilities in the vicinity of a flame effect.
- 8.1.4. Flame effects shall be evaluated to verify that the fire performer and the audience are not exposed to an unreasonably dangerous situation when the flame effects are activated as designed or anticipated.
- 8.1.5. Smoking shall be prohibited in the area where fuels used in flame effects are present.
- 8.1.6. Smoking by fire performers as part of the performance shall be permitted where approved by the authority having jurisdiction.

8.2. Show

- 8.2.1. Show Operations shall be in accordance with a verbal plan approved by the authority having jurisdiction when required.
- 8.2.2. Only fire performers and flame effect assistants familiar and experienced with the flame effects being used shall be permitted to be in the hazard area of a flame effect, but only voluntarily and in the performance of their duties.
- 8.2.3. An appropriate number of flame effect assistants shall be present.

- 8.2.4. Flame effect assistants shall have a working knowledge of the fire-safety equipment used in the area of the flame effects.
- 8.2.5. Flame effect assistants shall have a means of transmitting an alarm during the operation of a flame effect as per the verbal safety plan.

8.3. **Post-Show**

- 8.3.1. Post-Show Operations shall be in accordance with a verbal plan approved by the authority having jurisdiction when required.
- 8.3.2. Upon completion of the flame effect, a fire performer shall notify appropriate personnel that any interrupted life safety systems must now be immediately restored.

8.4. **Emergency**

- 8.4.1. Emergency Operations shall be in accordance with a verbal plan approved by the authority having jurisdiction when required.

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