

USE OF OPEN FLAME ON PRODUCTION

This guideline provides recommendations on the use of open flame such as torches, candles, fireplaces or other open flame devices on production sets. It is recognized that there can be unforeseen or unique situations that might require an on-site judgement that differs from these recommendations; such judgement must always be made in the interest of safety of cast and crew. The information below is a guideline and does not replace current standards laws and regulations.

KEY RESPONSIBILITIES

The Special Effects Coordinator and Stunt Coordinator must meet compliance with all local fire prevention regulations, and exercise all reasonable medical & safety precautions, on any set where open flame is used.

- A responsible person (such as a Special Effects Operator in charge or another qualified person) must be designated for the daily handling, placement, safe use and securing of any open flame devices. Designated persons must be equipped with and trained in the use of approved fire extinguishing equipment. Local fire authorities should be contacted prior to the use of open flames, whether at the studio or on location.
- The person responsible for igniting the flame should maintain a clear line of sight to the flame or maintain **direct communication** with a designated observer.

PLANNING AND COMMUNICATION

- Consider alternatives to open flame wherever possible. Open flame must only be incorporated into a production under strictly controlled conditions.
- Determine the need for any required licenses and/or permits for open flame to be obtained from the appropriate Authorities Having Jurisdiction (AHJ).
- Develop emergency procedures and contingency plans, including identifying emergency fire suppression equipment, venting of low-lying areas and personnel needs. All equipment must be checked for good operating condition. Individuals using this equipment must have proper training in its use and limitations.
- Assess and identify the need for Personal Protective Equipment (PPE).
- Provide advanced notification of the use of open flame to all appropriate departments in order to safely plan the sequences. Any performer who may be working around an open flame must also be informed.
- Before any open flame effects or potentially hazardous sequence is performed, all persons involved should be thoroughly briefed at a safety orientation meeting on the site. The meeting should include an “on-site walk-through” and/or “dry run” with the designated responsible person and all other persons involved in the event, including Stunt Coordinator if applicable. PPE should be in place at that time.
- If practical and upon a reasonable and timely request, the designated responsible person may conduct a test of the open flame in the vicinity of cast and crew.
- If at any time a significant change in open flame use becomes necessary, the First Assistant Director will again call all persons involved in the event to another meeting to confirm everyone understands the proposed change(s).

SAFE WORK PRACTICES AND PRECAUTIONS

Suitable clothing and personal protective equipment (PPE)

- All wardrobe used in any type of burn should be approved beforehand by the Stunt Coordinator and/or Special Effects Coordinator. Sets, equipment, props, wardrobe, make-up, wigs, hair supplies, etc., that will be in close proximity to open flame should be prepared accordingly and/or should be made of flame retardant material. All sets, equipment, props, wardrobe, wigs, etc., should be made available in advance to the designated responsible person for evaluation.
- Cast and crew in close proximity to open flame should wear suitable clothing. At a minimum this should include appropriate closed-toe footwear, long pants, and a long-sleeved shirt made of 100% cotton or material of other natural fibre. Any stunt, SFX and props personnel directly involved with interior fire sets should wear a higher level of protective gear (for example, Nomex™ or equivalent suits).
- PPE must be provided as appropriate for the hazard(s) involved and considerations must be made for head, hand, eye, ear and respiratory protection. Depending on the hazards involved, the AHJ may require full fire turnout gear and Self-Contained Breathing Apparatus (SCBA). These guidelines will also apply to performers when appropriate. All users must have proper training in the use and limitations of such PPE.
- Water gel should be used at all times on all exposed areas of skin, including performer's hair if it is uncovered, in consultation with the Stunt Coordinator and Special Effects Coordinator. A performer should have the option of wearing a natural hair wig.

Transportation of fuels

- Special effects personnel must inform the **Transportation Coordinator** as to the types of bulk fuel and/or compressed gas cylinders that will be transported.
- Vehicles must be **properly placarded** in accordance with Transportation of Dangerous Goods (TDG) regulations. All vehicles transporting bulk fuel or compressed gas cylinders must have an inventory of the materials being transported or stored readily available. Drivers must be qualified to transport these materials.

Fire protection

- Flammables and combustibles, including bulk fuel, compressed gas cylinders and highly concentrated dust effects, shall be kept a **safe distance** from open flame and other sources of ignition. Where required, such materials shall also be stored in approved, properly labeled containers.
- All lines and fittings used in the delivery of fuel gas to open flame devices shall be **appropriate** for the fuels being used, (i.e., natural gas usage requires different hoses and fittings than liquid petroleum gas). All local technical **specifications and codes** apply.
- All stationary open flame devices should be **firmly secured**.
- "No Smoking" signs must be posted in all areas where fuel and compressed gas cylinders are stored and handled.
- Sufficient fire suppression equipment (such as charged extinguishers and fire hoses) must be attended, ready for use and placed at an appropriate safe distance from the open flame during testing, rehearsal and filming.

- Designated personnel performing fire suppression activities during testing, rehearsal and filming must be properly clothed and wear appropriate PPE.
- A qualified special effects operator, with the consultation of the stunt coordinator if applicable, must do the rigging of any type of open flame device to a performer.
- Personnel working with or around open flame must be given sufficient time to safely perform the work (including the transporting, storing, creating, rigging, igniting, striking and extinguishing of all open flame devices and materials). While conducting such duties, personnel should not be rushed, interrupted or distracted from their work.

Emergency procedures

- Emergency procedures and contingency plans, including appropriate signs and signals and authority to abort the shot, should be specified prior to engaging in any open flame work.
- Before the use of open flame on set, the First Assistant Director, or designee, should clearly announce to all persons the location of exits, the primary escape route and alternate escape routes. Escape routes must provide a clear and unobstructed passage to a designated safe area.
- Each person should ensure their designated escape routes are clear and remain accessible. Any person who is unsure of their designated escape routes should check with the First Assistant Director and learn of the escape routes upon entering the work area.
- In the event of an emergency, only those designated with emergency response roles should enter the open flame area.

Authorized personnel in the open flame area

- Access to areas where open flame is rigged or present should be limited to authorized personnel only. All other personnel should remain at a designated safe distance. If needed to prevent unintentional entry into hazardous areas, warning signs should be posted and/or other appropriate precautions taken.
- Prior to using open flame with minors present, key production personnel, such as the Director, First Assistant Director, SPFX Coordinator, Stunt Coordinator, Producer should confer with the Production Safety Rep, the minor, the minor's parent/legal guardian and Studio Teacher to review and discuss the planned activity and consider any reasonable request regarding the minor's proximity to any open flame.

Safety on the set after use of open flame

- After each use of open flame, no one shall enter the area other than the designated responsible person(s), until it is declared safe. This includes testing, rehearsals and filming.
- A fire watch, as determined by the AHJ, should be maintained after each open flame event.

Full and Partial burns

Partial burn:

- A partial burn is defined as when a stunt performer carries an amount of fire limited to a restricted area of the body (i.e., an arm, a leg, a portion of the torso) and does not inhibit the sight or breathing of the Stunt Performer.
- If the stunt is a partial burn, there should be now fewer than 2 people ready and equipped with proper fire extinguishers.

Full burn:

- A full burn is defined as: When a substantial part of the body is on fire or when the flames reach or interact with the head area and could limit the sight or breathing of the Stunt Performer. Any fire gags (Stunts involving fire) Where a breathing apparatus or eye protection is required
- If the stunt is a full burn, there should be no fewer than 3 people ready and equipped with proper fire extinguishers

CALL SHEET

When using open flame on any set, notification should be given to personnel by way of the call sheet, or other suitable means. The call sheet should also state the type of flame work that is planned.