INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #1

RECOMMENDATIONS FOR SAFETY WITH FIREARMS AND USE OF "BLANK AMMUNITION"

BLANKS CAN KILL. TREAT ALL FIREARMS AS THOUGH THEY ARE LOADED. "LIVE AMMUNITION" IS NEVER TO BE USED NOR BROUGHT ONTO ANY STUDIO LOT OR STAGE.

These guidelines are intended to give recommendations on the safe handling, use, and storage of firearms. Firearms include prop guns, rubber guns, plastic guns, non-guns, flintlock guns, pistols, machine guns, rifles, and shotguns that shoot **"Blank Ammunition."**

The Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production) will be the individual acting in the interest of the Producer for obtaining, maintaining and handling all firearms for the production. He/she will work in conjunction with the production's designated Safety Representative to assure that the following standards are adhered to.

Before any use of a firearm in a rehearsal and/or on-camera sequence or off-camera use, all persons involved must be thoroughly briefed at an on-site SAFETY MEETING where the firearms will be used. This meeting shall include an “on-site walk through” and/or “dry-run” with the **Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production)**, designated production representative, and anyone that will be using and/or handling a firearm. An understanding of the intended action, possible deviations, plans to abort, emergency procedures, and chain of command should be made clear.

No one shall be issued a firearm until he or she is trained in safe handling, safe use, the safety lock, and proper firing procedures. If there are any questions as to the competency of the person who will use the firearm, **the Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production)** shall determine if additional training is required.

A **SAFETY MEETING** for the cast and crew shall be conducted. If there are any questions as to the safety of firearms being used in the sequence or if any changes are made from the original sequence, another **SAFETY MEETING** shall be held.

Additionally, this Bulletin should be attached to the call-sheet each day firearms will be used.

GENERAL SAFE USE AND HANDLING OF FIREARMS

1. Refrain from pointing a firearm at anyone, including yourself. If it is absolutely necessary to do so on camera, consult the **Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production)** or other safety representative, such as the First A.D./Stage Manager. Remember that any object at which you point a firearm could be destroyed.

2. **NEVER place your finger on the trigger until you're ready to shoot.** Keep your finger alongside the firearm and off the trigger.

3. **KNOW** where and what your intended target is.

4. **DO NOT** engage in horseplay with any firearms.

5. **NEVER** discharge a firearm when the barrel is clogged. The **Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production)** should inspect the firearm and barrel **before and after every** firing sequence.

6. **UTILIZE** all safety devices until the firearm is ready to be used.

7. **NEVER** lay down a firearm or leave it unattended. Unless actively filming or rehearsing, all firearms should be safely secured.

8. **ONLY** a qualified person shall perform hand loading or altering factory loaded blank ammunition to work on firearms (either licensed or experienced). Check with local, state and federal regulations to see if a specific license is required.

9. **NO PERSON** is to be coaxed, coerced, or otherwise forced into handling a firearm.

10. The **jamming of firearms** or any malfunctions must be reported immediately to the **Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production)**. Do not attempt to adjust, modify, repair, or un-jam the firearm. Malfunctioning firearms should be taken out of service until properly repaired by a person qualified to work on firearms.

11. Protective shields, eye, and hearing protection or other appropriate Personal Protective Equipment (PPE) shall be issued and utilized by all personnel in close proximity and/or directly in the line of fire.

12. The Studio Safety and Security Departments are to be notified prior to any firearm use on studio property.

13. All personnel should remain a set safe distance from the weapon firing area (to be determined by the **Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production), Stunt Coordinator and/or designated Studio Safety Representative**) to ensure personal safety from blank debris and hot ejected blank casings.

14. All local, state and federal laws and regulations are applicable and can override these guidelines if they are more stringent.

The Property Master (or, in his/her absence, a weapons handler and/or other appropriate personnel determined by the locality or the needs of the production) is responsible for the following:

1. Ensuring the control and distribution of all firearms on the set.

2. Ensuring that all firearms which will be used on the production (whether company owned, rented, or privately owned) are given to and are in possession of the **Property Master (or, in his/her absence, the weapons handler and/or other appropriate personnel determined by the locality or the needs of the production).**

3. The designation of experienced persons working under his or her immediate supervision to assist as necessary.

4. Their own qualifications for working with the type of firearms being used, the knowledge of their safe handling, use, and safekeeping, and familiarity with the **"BLANK AMMUNITION"** to be utilized.

5. Seeking expert advice if he or she is not familiar with the firearm to be used.

6. Ensuring current licenses and permits have been obtained for the possession and use of production firearms.

7. The knowledge of the applicable laws governing transportation, storage, and use of firearms and be in compliance with those laws.

8. The knowledge of and adherence to all manufacturers' warnings, expiration dates, storage, and handling procedures for **"BLANK AMMUNITION"** and firearms.

9. Ensuring that a sufficient amount of time has been allotted for training and rehearsal.

10. The ability to demonstrate prior knowledge of the safe handling of firearms and **"BLANK AMMUNITION."**

11. The personal loading of firearms or the personal designation of an experienced person working under his or her immediate supervision to load the firearms. Firearms are to be loaded just before they are used in a scene.

12. Ensuring that any actor who is required to stand near the line of fire be allowed to witness the loading of the firearms.

13. Using the lightest load of **"BLANK AMMUNITION"** consistent with the needs of the scene and advising the Director and other involved personnel.

14. The notification to all those present including the Sound Mixer, First Assistant Director and/or Stage Manager prior to any firing of **"BLANK AMMUNITION."**

15. The possession of all firearms except during actual filming or rehearsal. Afterwards, the **Property Master (or, in his/her absence, a weapons handler and/or other appropriate personnel determined by the locality or the needs of the production)** will **immediately unload** the **"BLANK AMMUNITION"** from the firearm.

16. Checking all firearms **before each use**. All firearms must be cleaned, checked and inventoried at the close of each day's shooting.

17. Ensure all firearms have been accounted for before personnel are allowed to leave the area. The Production Company needs to allow time in its shooting schedule for this procedure.

18. The utilization of replica or rubber prop guns whenever possible.

19. **Ensuring that an inspection is made of the set (location) and all spent "brass casings" and unspent "blank ammo" have been picked up and disposed of properly.**

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #4

STUNTS

The following recommendations and guidelines are intended to give general guidance on the preparation, safe set-up, and performance of stunt sequences. You should also refer to the **Safety Bulletins and "General Code of Safe Practices for Production,"** which addresses concerns regarding specific equipment and/or procedures on the various topics listed in the **Safety Bulletin Table of Contents**.

1. A **stunt coordinator and/or qualified individual** is in charge of all aspects of the physical stunt, including script review, planning, site selection, preparation, testing, rehearsal, modification and recommendation of the qualified personnel and equipment to be utilized to perform the stunt.

2. When a Producer requires a performer to perform a scripted or non-scripted stunt or stunt related activity, an individual qualified by training and/or experience in planning, setting up and/or performance of the type of stunt involved shall be engaged and present on the set. No performer without the requisite training and/or experience shall be required to perform a stunt or stunt related activity without an opportunity for prior consultation by the performer with such qualified individual.

3. The performer must consent to participation in the stunt prior to its performance.

4. No individual should be required to work with an animal that a reasonable person would regard as dangerous in the circumstances unless an animal handler or trainer qualified by training and/or experience is present.

5. The qualified **licensed special effects person** who will be rigging and firing an explosive charge (including squibs) on a performer shall be allowed prior consultation with the stunt coordinator and performer.

6. The Producer or Producer's representatives on the set or location should comply with requests and requirements for safety equipment that is generally accepted in the industry for the safe and proper performance with stunts.

7. Equipment provided by the Producer (for example, automobiles, motorcycles, or wagons) shall be in suitable repair for the safe and proper performance of the stunt and presented in time to review such equipment prior to the execution of the stunt (Cal-OSHA, Title 8 requirement).

8. Advance notice is to be given to stunt personnel in order to plan a safe stunt. If changes are made to these plans, the Producer is to provide sufficient time to safely accommodate the changes.

9. An on-site safety meeting, including all participants and others involved, must precede the performance of all stunts. This meeting should include a "walk-through" or "dry-run" with the **stunt coordinator and/or effects people**. An understanding of the intended action, possible deviations, and authority to abort should be made clear. Before rolling cameras, should any substantive change become necessary, the First Assistant Director will again call all persons involved in the stunt to another meeting to confirm everyone's understanding and agreement to said change(s).

10. Wardrobe, prosthetics, wigs, lenses and/or other related equipment required to be worn by the stunt individuals should be presented in sufficient time for evaluation and to determine if such items will impact the execution of the stunt or stunt sequence. Final safety approval rests with the **stunt coordinator and/or qualified individual.**

11. The **stunt coordinator and/or qualified individual** shall determine whether safety requires the exclusion of non-essential crew from the stunt area. Perimeter control should be established and maintained. Traffic control procedures shall be reviewed, and special attention should be paid to driving sequences where unauthorized personnel could enter the area. The **stunt coordinator and/or qualified individual** should be involved in safe placement of cameras, camera operators and all essential crew.

12. **Communications:** The **stunt coordinator and~~/~~ or qualified individual** will coordinate with the designated production representative and implement a plan for communications between the participants. The chosen methods of communication should reflect the conditions and circumstances at the scene.

Note: It is recognized that there can be unforeseen or unique situations which might require on-site judgment differing from these guidelines. Such judgment should be made in the interests of the safety of cast and crew.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #8

GUIDELINES FOR TRADITIONAL CAMERA CARS

Also see: Addendum A – Process Trailers/Towed Vehicles
Addendum B – Camera/Crane Boom Vehicles
Addendum C – Power Line Distance Requirements

A Traditional Camera Car ("camera car") includes any self propelled vehicle specifically engineered for the mounting and manning of cameras and other equipment for the primary purpose of filming from a stationary or moving vehicle. Excluded from these guidelines are specialty tracking vehicles, including but not limited to, motorized process vehicles, and powered camera vehicles (such as ATV, golf carts, snowmobiles, rally cars, camera bikes, side cars and other like vehicles). The addition of a process trailer/towed vehicle to a camera car shall make that vehicle also subject to the provisions of Addendum A of this safety bulletin. The addition of any manned or unmanned camera boom/crane or arm to a camera car shall make that vehicle also subject to the provisions of Addendum B of this safety bulletin. The addition of anything extending beyond the camera car shall make that vehicle also subject to the provisions of Addendum C of this safety bulletin.

NOTE (1): The driver/operator has the authority to suspend operation of the vehicle for any reason that he or she deems to be unsafe.

CONSIDERATIONS FOR USING A TRADITIONAL CAMERA CAR/PROCESS TRAILER (SEE ALSO ADDENDUM A):

1. When the action of the performer interferes with their ability to drive.

2. Impaired vision – when the driver's (performer's) vision will be substantially impaired by:

   (a) Dust
   (b) Spray (when driving through water, mud, etc.)
   (c) Blinding lights
   (d) Restrictive covering over the windshield
   (e) Smoke
   (f) Any other conditions which will substantially restrict the driver's normal vision.

3. The speed of the vehicle varies from what is normally safe for the conditions of the driving surface.

4. When other conditions such as obstacles or difficulty of terrain will exist or off-road driving will occur.

5. When any aircraft, fixed-wing or helicopter is flown in close proximity to the vehicle creating a hazardous driving condition for the performer(s).

6. Whenever speed or close proximity of two (2) or more vehicles create conditions dangerous to the drivers, performers, passengers, film crew or vehicles.

The foregoing shall not apply to an on-camera driver qualified as a stunt performer under the Screen Actors Guild Codified Basic Agreement or when a performer has the special expertise to perform the sequence in a safe manner. (See Safety Bulletin #4, "Stunts.")

GUIDELINES PRIOR TO OPERATION:

1. A copy of this bulletin should be kept with the camera car at all times.

2. A camera car must be inspected before and after use, or at a minimum, on a daily basis. Inspection items include, but are not limited to: brakes, tires, steering, engine, drive train, vehicle's electrical system, towing equipment, and all safety equipment. Any items not fully functioning must be repaired by a qualified person before use.

3. All rigging of equipment, including any changes, is to be performed by qualified personnel in an area secured for the purpose of rigging, which is free of known hazards, including other vehicular traffic. The rigging must be discussed with the camera car driver prior to the use of the vehicle. The driver must inspect the vehicle after any rigging changes are made to ensure that they will not adversely affect the safe operation of the vehicle.

4. All personnel riding on the camera car must be provided a safe and secure place to ride to avoid the possibility of a fall hazard. Such safety precautions include, but are not limited to: railings, harnesses, helmets, etc. This may be accomplished either by a safety railing placed at the appropriate height for the layout of the camera car or by a properly secured safety harness.

5. Malfunctioning or broken equipment must be reported immediately, taken out of service, and replaced or repaired prior to use.

6. Maximum passenger allowances -- Operation of Traditional Camera Cars Transporting Production Personnel:

   Section 1217 of Title 13 of the California Administrative Code mandates that no driver shall drive a vehicle transporting passengers in violation of the following provision:

   "No more passengers shall be transported than the number whose weight, in addition to the weight of any property transported, can be carried without exceeding the manufacturer's maximum gross vehicle weight rating or the combined maximum rating of the tires supporting each axle."

The total weight shall never exceed the manufacturer's Gross Vehicle Weight Rating (G.V.W.R.). Generally, the maximum number of personnel allowed on camera cars should not exceed nine (9), including the driver. However, as vehicles may differ, the manufacturer's guidelines must be followed at all times and in all cases.

Only those persons absolutely required to perform work during the rehearsals and the actual shot sequences shall be allowed on the camera car as determined by the driver/operator in consultation with the 1st A.D. and the Key Grip (if on set or location). To determine the number of on board personnel, the following factors must be considered:

(a) Weather at the time of the intended shot;

(b) Surface to be used (*e.g.*, concrete, asphalt, decomposed granite, compacted dirt, etc.);

(c) Surface condition (*e.g.,* wet, oily, broken, icy, loose debris, washboard, etc.);

(d) Route configuration (*e.g.,* straight, slightly curved, moderately curved, "S" curved; level or inclined, crown, etc.);

(e) Topography (*e.g.,* flat, hilly, urban, countryside, mountainous, etc.);

(f) Speed of the vehicle;

(g) Visibility (*e.g.,* trees, fog, smoke, lighting, structures, rigging, overhead obstruction, etc.);

(h) All overhead and side obstructions (*e.g.,* power lines, tree limbs, overpasses, traffic signals, etc.);

(i) Shot sequence (*e.g.,* following lone vehicle, stunt action with cross-overs/head-on or near misses, high speed chase, proximity of other vehicles, background performers and/or property, etc.);

(j) Equipment rigging (*e.g.,* multiple cameras, camera lights, etc.); and

(k) Escape routes and contingency plans.

NOTE (2): The performance, operation and capacity of the camera car will vary when all factors are taken into consideration. The camera car driver has the authority to make the final determination regarding the operation of the camera car.

GUIDELINES WHEN OPERATING THE CAMERA CAR:

1. All items placed on the camera car are to be properly secured. Extra equipment, which is not used for the shot in progress, should be placed in a follow vehicle.

2. A shot specific safety meeting should be held involving all personnel riding on the camera car or in close proximity (*e.g.,* stunt personnel or background performers, etc.). This meeting should include a "walk-through" or "dry-run." An understanding of the intended action, possible changes due to hazards, and authority to abort, including signals to be used, should be made clear. **If for any reason there is a change in the choreography of the camera car, other picture vehicle(s) in the shot, or personnel involved in the shot, a safety meeting must be held with all personnel involved to ensure everyone understands the changes and is in agreement with those changes.**

3. The driver of the camera car must alert personnel of the car's impending movement by making two (2) short "taps" of the car's horn or by using an on-board P.A. system.

4. Personnel are not allowed to walk between the camera car and any vehicle that it is towing while the camera car's engine is running.

5. No personnel are allowed on the tow bar while the camera car is in motion.

6. Personnel are not allowed to get on or off the camera car while it is in motion. If the engine of the camera car is running and the vehicle is stopped, personnel should not enter or exit the vehicle unless instructed to do so by the driver or 1st A.D.

7. Personnel riding on the camera car should protect themselves from changes in speed or direction by:

   (a) Remaining seated at all times while the car is moving.

   (b) Placing both feet on the floor, or on a foot rest.

   (c) Firmly gripping the grab rail (safety railing).

   (d) Riding only in a protected, safe and secure area on the camera car (refer to item # 4 on page 2 of this bulletin).

   (e) Staying alert, expecting the unexpected.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #10

GUIDELINES REGARDING THE USE OF ARTIFICIALLY CREATED SMOKES, FOGS AND LIGHTING EFFECTS

1. **The following substances should not be used:**

   a) Known human carcinogens including any particulates of combustion, including tobacco smoke (except where such smoke results from the smoking of tobacco by an actor in a scene);

   b) Fumed and hydrolyzed chlorides;

   c) Ethylene glycol and Diethylene glycol;

   d) Mineral oils;

   e) Aliphatic and aromatic hydrocarbons including petroleum distillates;

   f) Hexachloroethane and Cyclohexylamine;

2. **The following substances may be used:**

   a) Propylene glycol, Butylene glycol, Polyethylene glycol and Triethylene glycol. Other glycol products should not be used (see c above);

   b) Glycerin products [Caution: Glycerin and the listed glycol products should not be heated beyond the minimum temperature necessary to aerosolize the fluid. In no event should glycerin or glycol be heated above 700 degrees Fahrenheit];

   c) Cryogenic gases (*e.g.*, carbon dioxide, liquid nitrogen) may be used but care must be exercised to avoid depleting oxygen levels, especially in confined areas. Use care also to avoid adverse effects of cooled air on exposed persons.

3. When creating smoke or fog effects on any set, Producer(s) will utilize the minimum concentration necessary to achieve the desired effect.

4. When smoke or fog effects are created on an interior set, the stage shall be periodically ventilated or exhausted, vertically and laterally, or all personnel and animals shall be given a break away from the stage at appropriate intervals.

5. When creating smoke or fog effects on interior sets, Producer(s) shall make available on request respirators of the appropriate type.

6. When smoke or fog effects are utilized on any interior set, all non-essential personnel shall be excluded from the set. Whenever possible, personnel shall be vacated from all dressing rooms located on the stage. School rooms located on the stage shall be vacated.

7. When utilizing smoke on an interior set on location, Producer(s) shall provide means to exhaust or ventilate the set.

8. When creating smoke or fog effects on an exterior location, Producer(s) shall exercise all reasonable precautions to prevent smoke and fog inhalation and Producer(s) shall make available on request respirators of the appropriate type.

9. When smoke or fog effects are scheduled to be created on any set, prior notification as to use and type shall be given to all personnel and whenever possible, the call sheet shall state that smoke or fog effects are to be used. The person responsible for providing respirators shall be designated.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #16

RECOMMENDED GUIDELINES FOR SAFETY WITH PYROTECHNIC SPECIAL EFFECTS

This Safety Bulletin applies to pyrotechnic materials such as explosives and flammable or combustible liquids, gases and solids when used to create pyrotechnic special effects.

ALL USE, HANDLING, STORAGE AND TRANSPORTATION OF PYROTECHNIC MATERIALS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

Pre-Production/Planning

- When pyrotechnic materials are used on set, such use shall be under controlled conditions with due regard for the safety of all involved.

- The Production Company or Studio shall make sufficient advanced notification of the use of pyrotechnic materials to the appropriate departments (such as Special Effects, Stunts, Camera, Art, Construction, Hair, Make-up and Wardrobe), in order to safely plan pyrotechnic special effects. Any performer who may be involved in a pyrotechnic special effect shall be notified.

- Any required licenses and/or permits shall be obtained from proper Authorities Having Jurisdiction (AHJ) over pyrotechnic materials prior to using pyrotechnic special effects. Pyrotechnic Special Effects Operator(s) must hold valid State and Federal license(s), as applicable.

- Consideration of using remote control detonation devices should be discussed with Safety, Fire, Production, Stunts, and Special Effects prior to use.

- Prior to pyrotechnic special effects work, productions must develop emergency procedures and contingency plans, including identifying emergency fire suppression equipment and personnel needs. All equipment shall be checked to verify that it is in good operating condition. Individuals using this equipment must have proper training in its use and limitations.

- The need for personal protective equipment (PPE) should be identified during the planning stage.

- Special effects personnel must inform the Transportation Coordinator of what pyrotechnic materials will be transported. Vehicles must be properly placarded when

required by Federal or State law. All vehicles transporting pyrotechnic materials shall have an inventory of the materials being transported or stored readily available. Drivers must be qualified to transport pyrotechnic materials.

- Sets, equipment, props, wardrobe, make-up, wigs, hair supplies, etc. that will be in close proximity to planned pyrotechnic special effects must be prepared accordingly and/or should be made of flame retardant material. All sets, equipment, props, wardrobe, wigs, etc., must be made available in advance to the Pyrotechnic Special Effects Operator in charge for evaluation, to establish placement, and if necessary, for testing.

Clothing and Personal Protective Equipment

- Cast and crew in close proximity to planned effects should wear appropriate protective clothing. Depending on the hazards involved, this clothing should include appropriate closed-toe footwear, long pants, and a long-sleeved shirt made of 100% cotton or material which provides equal or greater protection.

- Cast and crew must be notified by the Pyrotechnic Special Effects Operator in charge when there is potential for exposures to pyrotechnics, such as fireball, debris, and shock wave. 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.

Fire Protection

- Pyrotechnic materials shall be kept a safe distance from open flames and other sources of ignition. Where required, such materials shall also be stored in approved, properly labeled containers.

- Smoking is prohibited in all pyrotechnic areas and "No Smoking" signs shall be posted in all appropriate areas of the premises or locations where pyrotechnic materials are stored and handled.

- Sufficient fire suppression equipment (such as charged extinguishers and fire hoses) must be manned, ready for use and placed at an appropriate safe distance from the effect, during testing, rehearsal and filming.

- Designated personnel performing fire suppression activities during testing, rehearsal and filming must be properly clothed and wear appropriate PPE.

Personnel Using and Handling Pyrotechnic Materials

- Special effects personnel working with pyrotechnic materials (pyrotechnicians) should be dressed in appropriate clothing to protect them from potential hazards. At a minimum, clothing should consist of appropriate closed-toe footwear, long pants, and a long-sleeved shirt made of 100% cotton or material which provides equal or greater protection. PPE 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.

- Intoxicating liquids, drugs and other controlled substances (except for prescription drugs not impairing the user's judgment and motor functions) shall not be used by any person handling pyrotechnic special effects at any time during transportation, set-up, firing or removal.

- Pyrotechnicians must be given sufficient time to safely perform the work (including the transporting, storing, creating, rigging, firing, striking and extinguishing of all pyrotechnic special effects materials). While conducting such duties, pyrotechnicians should not be rushed, interrupted or distracted from focusing on their work.

- The rigging of any type of pyrotechnic device to a performer shall be done by a qualified special effects operator.

- Pyrotechnic special effects shall not be fired unless the area involved with the firing is in the continuously unobstructed full view of the Pyrotechnic Special Effects Operator in charge or his or her designated representative at the time of firing, unless equal means of observation are used.

Awareness

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

- Before any pyrotechnic special effects or potentially hazardous sequence is to be performed, all persons involved shall be thoroughly briefed at a safety orientation meeting on the site.

- The safety orientation meeting shall include an "on site walk-through" and/or "dry run" with the Pyrotechnic Special Effects Operator in charge and all other persons involved in the event, including Stunt Coordinator if applicable. PPE should be in place at that time.

- No performer shall be rigged with a pyrotechnic device without his or her prior consent and consultation with the qualified Pyrotechnic Special Effects Operator in charge and, if applicable, Stunt Coordinator.

- If practical and upon a reasonable and timely request, the Pyrotechnic Special Effects Operator in charge may conduct a test firing of pyrotechnics when such are to be discharged in the vicinity of cast and crew.

- If at any time a significant change 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).

Emergency Procedures

- Emergency procedures and contingency plans, including appropriate signs and signals and the authority to abort the shot, shall be specified prior to engaging in any pyrotechnic special effects work.

- Before the performance of a pyrotechnic special effect, the First Assistant Director, or designee, shall 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 pyrotechnic special effects area.

Authorized Personnel in the Pyrotechnics Area

- Access to areas where pyrotechnic materials are stored or handled shall be limited to authorized personnel only. All other personnel shall 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 pyrotechnic special effects with minors present, key production personnel, such as the Director, First Assistant Director, Pyrotechnic Special Effects Operator in charge, Stunt Coordinator and safety professional, should confer with the minor, minor's parent/legal guardian and Studio Teacher to review and discuss the planned activity. Only those minors under the age of 16 whose performance requires them to be on the set when pyrotechnic special effects are being handled are allowed on the set, and in some states may be prohibited altogether. Production should

check applicable state laws with respect to the employment of minors in these situations. The production shall consider any reasonable request from the minor, minor's parent/legal guardian, and/or Studio Teacher regarding the minor's proximity to any pyrotechnic special effect.

Use of Power Sources in Firing Pyrotechnic Materials

- To protect against accidental firing, all electrically fired pyrotechnic devices shall be shunted at all times prior to firing.

- Power sources for firing pyrotechnic special effects devices shall be restricted to isolated ungrounded batteries or individually designated ungrounded generators (below 5 kilowatts to comply with non-grounding requirements) used exclusively for firing purposes only.

- Commercial or house power shall not be used directly for firing purposes.

- There should be no wireless transmissions in the area where electrically fired pyrotechnic devices are being used without prior consultation with the Pyrotechnic Special Effects Operator in charge. In addition, caution should be taken to avoid extraneous or induced electrical currents from sources such as power lines, radar/microwave transmitters, electrical cable, lightning, static electricity, etc. Note that static electricity is especially a problem during periods of low humidity.

- Whenever practical, pyrotechnic special effects should be hard wired from the effect to the firing system. When remote control firing is planned, special precautions must be taken to prevent accidents, including but not limited to the following:
  - Having familiarity with the system being used and its limitations;
  - Performing a risk analysis in the event of premature firing or firing failure; and
  - Testing the firing system under the anticipated conditions of use.

Safety on the Set After Use of Pyrotechnic Material

- After each pyrotechnic event, no one shall enter the pyrotechnic area other than the Pyrotechnic Special Effects Operator in charge, or his or her designated representative(s), until it is declared safe. This includes testing, rehearsals, and filming.

- Appropriate fire watch, as determined by the AHJ, should be maintained after each pyrotechnic event.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #19

RECOMMENDED GUIDELINES FOR THE USE OF OPEN FLAME ON PRODUCTION

These guidelines are intended to give recommendations on the use of open flame on production. This Safety Bulletin does not apply to full or partial body burns, fire breathing, or other fire performance work (See Safety Bulletin #4 "Stunts").

ALL USE, HANDLING, STORAGE AND TRANSPORTATION OF BULK FUEL, COMPRESSED GAS CYLINDERS AND OTHER MATERIALS USED TO CREATE OPEN FLAME SHALL BE IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

Pre-Production/Planning

- When torches, candles, fireplaces or other open flames are used on set, such use shall be under controlled conditions with due regard for the safety of all involved.

- A responsible person (such as a Special Effects Operator in charge or other qualified individual) shall be designated for the daily handling, placement, safe use and securing of any open flame devices.

- The Production Company or Studio shall make sufficient 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 shall be notified.

- Prior to use, any required licenses and/or permits for open flame shall be obtained from the appropriate Authorities Having Jurisdiction (AHJ).

- Prior to work with open flame, productions must develop emergency procedures and contingency plans, including identifying emergency fire suppression equipment, venting of low lying areas and personnel needs. All equipment shall be checked to verify that it is in good operating condition. Individuals using this equipment must have proper training in its use and limitations.

- The need for personal protective equipment (PPE) should be identified during the planning stage.

- 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 when required by Federal or State law. All vehicles transporting bulk fuel or compressed gas cylinders shall have an inventory of the materials being transported or stored readily available. Drivers must be qualified to transport these materials.

- Sets, equipment, props, wardrobe, make-up, wigs, hair supplies, etc., that will be in close proximity to open flame must be prepared accordingly and/or should be made of flame retardant material. All sets, equipment, props, wardrobe, wigs, etc., must be made available in advance to the designated responsible person for evaluation, to establish placement, and if necessary, for testing.

Clothing and Personal Protective Equipment

- Cast and crew in close proximity to open flame should wear appropriate protective clothing. Depending on the hazards involved, this clothing should include appropriate closed-toe footwear, long pants, and a long-sleeved shirt made of 100% cotton or material which provides equal or greater protection.

- Cast and crew must be notified by the designated responsible person when there is potential for exposures to open flame. 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.

Fire Protection

- All stationary open flame devices should be firmly secured.

- 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).

- “No Smoking” signs shall 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 manned, 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.

Personnel Using and Handling Open Flame

- Personnel working with open flame should be dressed in appropriate clothing to protect them from potential hazards. Depending on the hazards involved, clothing should consist of appropriate closed-toe footwear, long pants, and a long-sleeved shirt made of 100% cotton or material which provides equal or greater protection. PPE 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.

- Intoxicating liquids, drugs and other controlled substances (except for prescription drugs not impairing the user's judgment and motor functions) shall not be used by any person involved in open flame effects at any time during transportation, set-up, use or removal.

- 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 focusing on their work.

- The rigging of any type of open flame device to a performer shall be done by a qualified special effects operator, with the consultation of the stunt coordinator if applicable.

- When igniting and maintaining an open flame, it must be continuously observed and controlled by the designated responsible person, unless equal means of observation are used.

Awareness

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

- Before any open flame effects or potentially hazardous sequence is to be performed, all persons involved shall be thoroughly briefed at a safety orientation

meeting on the site.

- The safety orientation meeting shall 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 when it is 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).

Emergency Procedures

- Emergency procedures and contingency plans, including appropriate signs and signals and authority to abort the shot, shall be specified prior to engaging in any open flame work.

- Before the use of open flame on set, the First Assistant Director, or designee, shall 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 shall 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, designated responsible person, Stunt

Coordinator and safety professional, should confer with the minor, minor's parent/legal guardian and Studio Teacher to review and discuss the planned activity. The production shall consider any reasonable request from the minor, minor's parent/legal guardian, and/or Studio Teacher 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.

- Appropriate fire watch, as determined by the AHJ, should be maintained after each open flame event.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #20

GUIDELINES FOR THE USE OF MOTORCYCLES

1. The motorcycle operator should hold a current, valid motorcycle operator's license. The operator should be familiar with the techniques for safely performing the requirements of the sequence to be photographed, taking into consideration the terrain, driving surface and other conditions.

2. Extreme caution in the use of motorcycles should be exercised at all times both by the operator and by persons in the vicinity. No persons should be in the vicinity unless their assignment requires them to be there.

3. Protective clothing and equipment such as a helmet, gloves, etc., should be worn at all times, the only exception being scene requirements while actually being photographed. In such situations, protective clothing should be worn under the costume if possible.

4. Motorcycles, ramps and other equipment shall be examined prior to use to determine if they are in proper operating condition.

5. The sequence to be photographed, including ramps, jumps, lay-downs, endos, and other potential hazards, should be clearly set forth and discussed by all persons who are immediately involved.

6. All picture motorcycles shall be equipped with a grounded cut-off switch (deadman switch). When a stunt is to be performed, this switch shall be attached to the handlebars and the wrist of the operator in such manner that the engine shuts off when the rider separates from the motorcycle.

7. A person qualified under the circumstances to administer medical assistance on an emergency basis shall be present or readily available at all rehearsals and all performances during which planned potentially hazardous motorcycle riding and motorcycle stunts are performed.

8. Picture motorcycles are not to be used for transportation. No one other than the designated operator should be permitted to operate or ride on a motorcycle unless the rider is required in the sequence to be photographed.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #21

GUIDELINES FOR APPROPRIATE CLOTHING AND PERSONAL PROTECTIVE EQUIPMENT

The purpose of this Safety Bulletin is to provide guidance in the selection of appropriate clothing and certain types of Personal Protective Equipment (PPE).

This bulletin does not include or apply to clothing or PPE for persons subject to the bloodborne pathogens standard (Safety Bulletin #24, "Cal-OSHA Safety Requirements for Handling of Blood and Other Potentially Infectious Materials"). Additionally, personnel working with or around pyrotechnics and/or open flame on production should refer to Safety Bulletin #16, “Recommended Guidelines for Safety with Pyrotechnic Special Effects” and/or Safety Bulletin #19, “Recommended Guidelines for the Use of Open Flames on Production” for guidance.

Suitable and effective PPE shall be provided and used where an activity presents a significant risk to health and safety and the risk cannot be reduced by any other means.

In particular, employers shall inform employees engaged in any of the following activities of specific PPE requirements by OSHA and/or other authorities:

- Working with electricity (see Safety Bulletins 23, 23A, 23B and 23C)
- Working with hazardous materials
- Welding or cutting
- Working around boats and water (see Safety Bulletin 15)
- Working with special effects, pyrotechnics, open flames, or hazardous objects (see Safety Bulletins 1, 2, 12, 16, 19, 27, 30, and 31)
- Construction, including alteration, painting, repairing, maintenance, renovation, removal or wrecking (see Safety Bulletin 39)
- Working around traffic (see Safety Bulletins 8, 8A, 8B, 8C, 20, 28, and 40)
- Working at heights

PPE must not significantly increase other risks by reducing visibility or interfere with other safety measures. Employees must be given appropriate instruction and training

on how to use any PPE issued. Once issued, PPE must be worn as required and any defects must be reported to the employer.

CLOTHING

- Clothing determined by the employer to be appropriate for the work being done shall be worn.

- Jewelry, loose sleeves, exposed shirt tails, neckties, lapels, loose cuffs or other loose clothing shall not be worn around machinery in which it might become entangled.

- Long hair shall be tied back when working around machinery and/or equipment with moving parts.

- Costumes should be selected and prepared in anticipation of the potential risks and hazards.

FOOT PROTECTION

- Appropriate foot protection shall be worn by employees who may be exposed to foot injuries from hot surfaces, corrosive materials, hazardous substances, falling objects, crushing or penetrating actions which may cause injuries, or who are required to work in abnormally wet or cold locations.

- Personnel working around open flame and pyrotechnic material must always wear appropriate closed-toe footwear.

HAND PROTECTION

- Hand protection (gloves) shall be worn by employees whose work exposes them to potential injuries, such as exposure to cuts, burns, harmful physical hazards, chemical agents or electrical hazards which are encountered and capable of causing injury or impairments.

- Hand protection should not be worn if there is a danger of it becoming entangled in moving machinery.

- Hand protection should be appropriate for the type of exposure.

- Gloves should be properly discarded when they become worn, contaminated, saturated or otherwise no longer usable.

EYE AND FACE PROTECTION

- Employees working where there is a risk of receiving eye injuries shall wear appropriate eye or face protection.

- Side shield protection shall also be utilized when employees are exposed to the risk of flying objects/particles/materials entering the eyes from the side.

- Suitable screens or shields isolating the hazardous exposure may be used if they provide adequate safeguarding for nearby employees.

- Specialized forms of eye protection are required for certain types of work, such as welding.

- The use of sunglasses or prescription eye glasses may not provide appropriate eye protection.

HEARING PROTECTION

- When operating or near loud equipment, amplified sound, pyrotechnics or gun fire, consideration should be given to wearing appropriate hearing protection suitable for the hazards encountered.

HEAD PROTECTION

- Employees exposed to flying or falling objects and/or electric shock and burns shall be safeguarded by means of approved head protection.

- Operation of vehicles, such as motorcycles, all terrain vehicles, bicycles, etc., may require the use of a helmet. (see Safety Bulletins 20 and 40)

SAFETY VESTS

Federal, State and local laws require safety vests to be worn and visible when working on active public roadways.

Safety vests shall always be properly worn by employees under the following circumstances:

- During set-up, rigging, filming or striking activities performed in or near an active public roadway, unless production has obtained full closure and control of the

roadway. **NOTE:** Alternative safety considerations should be made when wardrobe requirements would prevent cast from wearing safety vests while working in or near an active public roadway without full closure and control.

- When directing traffic or responsible for lockup during partial lane closures where intermittent traffic control is used to control traffic.

Other conditions and locations may require the use of safety vests, such as railroads, subways, construction sites, airports, docks, etc.

The color of the safety vests must be either fluorescent orange-red or fluorescent yellow-green. The retro-reflective material shall be orange, yellow, white, silver, yellow-green or a fluorescent version of these colors.

RESPIRATORY PROTECTION

The need for respiratory protection is unique to the hazards of the workplace. Consult your employer regarding their specific respiratory protection policy.

SANITATION OF PPE

- PPE shall be kept clean and in good repair.

- PPE not capable of being easily cleaned or disinfected shall be disposed of after use.

- PPE must be properly stored when not in use.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #28

GUIDELINES FOR RAILROAD SAFETY

These guidelines are recommendations for safely engaging in rail work, i.e., working onboard trains, in railroad yards, subways and elevated systems, or in the vicinity of railroad equipment.

There are strict rules governing rail work. These rules must be communicated to and followed by all cast and crew. Check with the Authority Having Jurisdiction (AHJ) and with the owner/operator for local regulations, specific guidelines, and required training. Additionally, each railroad property or transportation agency may have its own rules and training requirements. In many cases, everyone must receive training.

PRIOR TO THE START OF RAIL WORK

Prior to starting rail work, the Production, in conjunction with the railroad representative, will conduct a safety meeting with all involved personnel to acquaint cast and crew members with possible workplace risks.

Consult with the appropriate Department Heads to determine if equipment, such as lighting, grip equipment, props, set dressing, electric generators or other equipment will be used. When using these items, ensure that they are properly secured and their use has been authorized by the railroad representative.

Plan proper ventilation and exhaust when using electric generators. Electrical bonding may be necessary.

Ensure conditions and weight loads of the work area and adjacent roads used for camera cars, camera cranes, horses, etc. are adequate for the intended work.

WORKING IN A RAIL YARD

1. Always follow the instructions of the designated railroad representative, and any written work or safety rules distributed by production.

2. Remain alert and aware of your surroundings at all times. Locomotives, railroad cars and other equipment may move without warning on any track in either direction. Never assume a train will be traveling in a particular or “normal” direction on any track.

3. If working around electrified train equipment, be aware of any "third rails" or overhead lines present in the area. A third rail is an electrified line that presents an immediate life threatening hazard. Never approach, step on or touch an energized third rail. For more detailed information see "Working on or Around Electrified Trains or Systems" below.

4. ANSI compliant high visibility vests are to be worn at all times. For specific information on vests please refer to AMPTP Safety Bulletin #21, Guidelines for Appropriate Clothing and Personal Protective Equipment.

5. Ankle-supported, reinforced-toe, work boots/shoes are recommended. Sandals, sneakers, and running shoes should not be worn.

6. Ask the designated railroad representative where to store production equipment. Extra care should be taken when storing hazardous or flammable materials.

7. **DO NOT RELY ON OTHERS TO WARN YOU** of approaching locomotives, rail cars or other equipment. Even if personnel have been assigned to provide warning, stay alert. You may not hear or see the warning.

8. When whistle or flag signals are to be used to communicate, everyone must be familiar with their meaning. The railroad representative or 1st AD shall educate cast and crew as to the meaning of these signals prior to commencement of work.

9. Listen for the sound of approaching locomotives or rail cars, as well as audible signals, such as bells or whistles. Trains typically use such signaling devices before moving, but do not assume that such warnings will be sounded.

10. Be aware that the train is significantly wider than the track's width. 15 feet from either side of the tracks is considered a safe distance. Closer distances need to be approved by the designated railroad representative.

11. Always face moving trains as they pass.

12. Never sit, walk or stand on the rails, ties, switch gear, guardrails or other parts of the track or structure. Be aware that tracks can move.

13. Before crossing tracks look backwards and at parallel tracks. Once determined to be clear, cross immediately.

14. Do not place any objects on the rails, switches, guardrails or other parts of the track structure. If the performance of any of these activities is required for production purposes, specific permission must be obtained from the designated railroad representative and additional safety precautions may be required.

15. Whenever you are walking, always face in the direction in which you are proceeding. Be aware of possible trip hazards and debris. If it is necessary to turn your head or look backward, stop and look before proceeding.

16. When using radios/cell phones or referring to paperwork, step away from the tracks, stop walking, and stand still until you are finished.

17. Do not operate switches or other railroad equipment.

18. Take extra precautions if rain, snow or ice is present. Snow may conceal trip hazards. Avoid walking or working under icicles. Walkways, platforms, steps, etc., should be clear of ice and snow.

RIDING RAILROAD EQUIPMENT

1. Riding on equipment should be restricted to essential personnel.

2. Never attempt to get on or off moving equipment, unless authorized by the designated railroad representative.

3. Only authorized personnel may ride on the side of a locomotive or rail car.

4. Remain alert for conditions that can cause abrupt changes in speed, e.g., train braking, changes in grade, wet or icy tracks, and entering or leaving a rail yard or train station.

5. Be alert for conditions that can cause slack action (e.g. train brake, change in grade or change in speed). Protect yourself by remaining seated and with both feet on the ground. If duties require you to stand, keep your feet shoulder width apart, one foot slightly ahead of the other, with hands braced on the wall or grab bar.

WORKING ON, INSIDE OR UNDER RAILROAD EQUIPMENT

1. Remain alert for the unexpected movement of equipment.

2. Observe the condition of equipment before using it. Look for sharp edges or other potential hazards including loose, bent or missing stirrups, ladder rungs and brake platforms.

3. Face equipment as you ascend or descend equipment. Look for obstructions before ascending or descending.

4. Dismount or mount equipment only when it is stopped, unless authorized by the designated railroad representative.

5. When moving from one side to the other of a stopped train, you may safely cross in front of the first locomotive or behind the final car. Crossing mid-train may only be done on locomotives or rail cars that are equipped with handrails and end platforms. Never cross the tracks between or under cars, unless authorized.

6. Do not move from one rail car to another rail car while the train is in motion, unless authorized by the designated railroad representative.

7. Cross between passenger cars by holding on to railings and grab bars. Remain aware of walking surface conditions.

8. Blue Flag Rules are special rules to inhibit train movement. These rules protect personnel working on a car, train or track. Anyone can request a “Blue Flag” to be set by the designated railroad representative. Once the blue flag is set, the train cannot move for any reason until the blue flag is removed.

WORKING ON OR AROUND ELECTRIFIED TRAINS OR SYSTEMS

1. Transit systems and trains are commonly powered by electricity. The most common methods of electric power come in the form of electrified “third rails” or overhead catenary lines.

2. Voltages can range from 600-V or 750-V for electric third rail systems to over 14,000-V for overhead catenary systems.

3. Never touch an electric third rail or any supporting electrical equipment. Always be aware of electric third rails and always assume they are energized until verified otherwise.

4. A safe clearance distance as determined by the rail system operator and approved by the designated railroad representative must be maintained when working in the vicinity of an electric third rail. If it is absolutely necessary to work

within the established safe distance to the third rail and the possibility exists that personnel or equipment may contact the rail, appropriate measures as determined by the designated railroad representative must be implemented to eliminate the electrical hazard. Appropriate measures may include methods such as, de-energizing, locking-out, and grounding the third rail; covering the third rail with rubber mats approved by the rail system operator; etc. All third rail protective measures should be performed by approved railroad personnel.

5. Always assume that an overhead catenary line is energized until verified otherwise. ONLY RAILROAD OR ELECTRIC COMPANY PERSONNEL MAY DE-ENERGIZE AND VERIFY CATENARY LINES.

6. When overhead catenary lines cannot be de-energized, a clearance distance minimum of 10-feet must be maintained at all times, unless approved by the designated railroad representative. Be mindful of any booms, ladders, sticks, or production equipment that could inadvertently make contact with the overhead lines.

7. Never touch any train equipment that is attached to the overhead catenary line. The “pantograph” extends from the train to the overhead line. This piece of equipment should always be considered live as it carries current. Never touch the pantograph, even if it is in the retracted position.

SUBWAYS AND ELEVATED TRAIN SYSTEMS

1. Subways and elevated trains present unique hazards and caution must be taken at all times when working within tunnels and on elevated tracks.

2. Never enter a subway tunnel, elevated track, or other prohibited area, without authorization and clearance from the designated railroad representatives. Do not touch any equipment within the tunnels or elevated tracks as they may present numerous hazards, such as electricity.

3. Be aware of exit and escape routes as well as your surroundings. Listen for the sounds of approaching trains. Always face and watch approaching trains on adjacent tracks.

4. Know the location of the electric third rail and/or overhead catenary lines. Be aware that catenary lines in tunnels may be much lower than on above-ground systems. In this case, use caution when carrying equipment.

5. Be mindful of insects and animals, including rodents, which are commonly present in subway tunnels.

6. When working on elevated structures, determine if guardrails or other appropriate fall protection systems are needed.

SPECIAL NOTE ON AUTOMATED TRAIN SYSTEMS

Some transit systems, (e.g., airport and amusement park people movers) are automated, meaning that they do not rely on onboard operators or engineers. Automated systems present unique hazards as there is usually no person on board to warn or stop the train if someone or something is on the track.

NEVER enter into an automated system when it is operational. If the production requires the filming of an automated system, a safety plan must be developed with the system owner/operator to ensure safety of all parties.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #30

RECOMMENDED GUIDELINES FOR SAFELY WORKING WITH EDGED, PIERCING AND PROJECTILE PROPS

These guidelines are intended to provide recommendations on the safe handling, use and storage of edged, piercing, and projectile props (hereinafter referred to as Props). These Props include, but are not limited to: knives, swords, razors, darts, bows and arrows, hatchets, saws, spears, martial arts throwing stars, cross bows and other objects launched mechanically, or by hand, including paintballs and pellets.

Responsible Person

A "Responsible Person" is someone who through experience or training is able to recognize and resolve problems relating to the safe operation and handling of Props.

Depending on the type and use of Props required for the production, and after consultation with one or more of the following personnel: Property Master, Stunt Coordinator, Special Effects Coordinator, Producer, First Assistant Director, Production Safety Representative, and/or any other necessary parties, a Responsible Person (or Persons) shall be assigned to oversee the safe use and operation of Props.

Authority

The Responsible Person will have the authority over the following operations, including, but not limited to:

- Designating individuals under the Responsible Person's supervision to assist as necessary;
- Removing a malfunctioning Prop from service;
- Determining whether an actor, or other, has experience in the safe handling of the Prop;
- Ensuring performers are educated or comfortable in the functionality or operation and potential hazards associated with the Prop; and
- Exercising the authority to abort the use of a Prop.

Responsibilities

The Responsible Person or designated individual should do the following:

1. Ensure proper storage, possession, control and distribution of all Props on the set, whether company owned, rented, or privately owned. Be qualified to work with the types of Props being used, and be knowledgeable in their handling, use and safekeeping. If unfamiliar with a Prop, expert advice should be sought.
2. Use simulated or dummy Props whenever possible.
3. Adhere to all manufacturers and Authority Having Jurisdiction requirements regarding transportation, storage and use of Props.
4. Ensure performers are instructed in the functionality operation, and potential hazards associated with the Prop.
5. Inspect each Prop before and after each use, as necessary.
6. Retain possession of all props except during actual filming or rehearsal. Account for each prop before personnel are allowed to leave the area. The production company should allow time in its schedule for this procedure.
7. Clean, check and inventory each Prop before the close of each day's shooting.

Prior to Rehearsal and Filming

- Maintain all safety devices and guards (such as sheathes) in place, until the Prop is about to be used
- Inspect the area in which the action is to be rehearsed or filmed, with special attention to the surfaces on which the performers will be standing, to identify and mitigate potential hazards
- Prior to rehearsing the action, inform the cast and crew of the safety precautions to be observed, including their positions during rehearsing and filming.

Safety Meeting

The First Assistant Director should, along with the Responsible Person and other necessary personnel, conduct a safety meeting with cast and crew prior to working around Props.

Make cast and crew aware of the Responsible Person (or designee) authorized to handle the Props.

Safety meeting topics may include, but are not limited to:

- Communicating to all involved personnel, including performers, the intended action, need for increased awareness, possible changes, any visual or audio signals to be used;
- After each use, no one shall approach or enter the area in which edged, piercing or projectile Props are in use other than the Responsible Person(s), until it is declared safe. This includes testing, rehearsals and filming.
- Identify cast, including Background Performers, that are authorized to use a Prop.

The Responsible Person should be notified of any changes or concerns in the use of the Props, action of the cast or crew, or placement of equipment in order to determine whether an additional safety meeting is necessary.

Safe Use and Handling of Props

- Real or fake Props shall be strong enough that they will not accidentally break into dangerous pieces when being used for their intended purpose. It is best to use dulled or blunted Props made to order for use as Props, as dulling a sharp Prop can lessen its tensile strength. Sharpened Props should only be used when the appearance of cutting or piercing cannot be otherwise simulated. Sharpened Props should only be used by those trained, qualified, or experienced in the use of the Prop.
- Props used to strike other weapons or other hard surfaces should be made of steel or high-tensile aluminum. The use of fiberglass Props in such situations should be avoided.
- The use of a rubber “double” should be considered, depending on the action, and after consultation with the Responsible Person.
- The use of Props should be limited to filming and rehearsals supervised by qualified personnel. Use these Props only for their intended purpose. Do not engage in, or permit, horseplay or target practice on or off the set.
- Never allow the dry fire of archery equipment.
- No person is to be coaxed, coerced or forced into handling these Props.

- Consult the Responsible Person or designee, First Assistant Director, Production Safety Representative or Stunt Coordinator, if you have any doubts or questions about the proper handling of these Props. Actors and others who will handle an edged, piercing or projectile Prop, and claim prior knowledge, will be required to demonstrate their experience in the safe handling of the Prop to one of the persons listed in the preceding sentence.
- Know where and what your target is at all times. Do not release the Prop unless you have a clear view of your target.
- Identify the individual designated to cue the use of a Prop. Use a cue that can be recognized even during photography. Never propel a Prop until you receive the designated cue. Always have an agreed upon abort signal, in case it is necessary to abort the use of a Prop.
- Report any malfunctions of equipment to the Responsible Person or designee immediately. Do not attempt to adjust, modify or repair equipment yourself. It is best to have a duplicate immediately available. Malfunctioning equipment should be taken out of service until properly repaired by a person qualified to do so.
- Never lay down or leave these Props unattended. Unless actively filming or rehearsing, all Props should be secured by the Responsible Person.
- Cast and crew should use appropriate personal protective equipment (PPE) when exposed to these Props.

All state and federal safety regulations are applicable and override these guidelines if they are more stringent.

Additional Considerations

Allow sufficient time to train performers and to rehearse the action so that everyone involved knows what their part in the action will be.

- Keep all non-essential personnel out of the rehearsal area.

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #31

SAFETY AWARENESS WHEN WORKING AROUND INDIGENOUS "CRITTERS"

(Refer to Safety Bulletins #6 and #12 when filming animals and reptiles)

This bulletin addresses special safety considerations when working on locations where various indigenous critters may be present. Although the types of critters may vary from region to region, basic safeguards should be taken to prevent serious injury or illness to cast and crew members.

PRE-PLANNING

"Critters" awareness starts during the initial search for locations. The location manager, his or her department representative, production management, studio safety department representative and/or any medical personnel assigned to the project should consider safety precautions when pre-planning and preparing to use a location that may contain some type of indigenous critters, including identifying the type(s) of critters present, the location of nearby hospitals or medical facilities, and the availability of any anti-venom that may be required. Pre-planning may also include contacting the local zoo to see if they have the anti-venom and to alert them you will be working in the area, especially if the production will be working with animal actors that could escape. Contact should be made with local wildlife authorities such as State Fish and Game as to the protective status of indigenous critters in the area.

It is production's responsibility to assure the safety of the indigenous critters in the filming area, and to consult the agency or persons responsible for the removal of wildlife from location sets. Any such indigenous critters that remain on the set are subject to American Humane Association (AHA) Guidelines and Procedures, including but not limited to:

Section 809.1 which states, if native animals are not to remain on the set, they must be carefully removed, relocated, or properly housed and cared for, then safely returned to their habitat after filming is complete. Only qualified and trained personnel should attempt removal of nests or hives.

Section 809.2 which states, a production may not intentionally harm and must take precautionary measures to protect nets, dens, caves, caverns, etc.

Section 809.3 which states, care must be taken to ensure that non-indigenous animals are removed from the area after the production has completed filming.

Animal actors brought to a location can be affected by other indigenous critters: this could range from distraction to life threatening situations or the transmittal of diseases between critters. Notification should be provided to the professional trainer/supplier of the animal actors.

If you have additional questions regarding the AHA's Guidelines for the Safe Use of Animals in Filmed Media, contact the Film and Television Unit at (818) 501-0123.

GENERAL SAFETY PRECAUTIONS

- While working around critters, it is advisable to wear long pants with the pant legs tucked into socks or boots. A good boot above the ankle will provide better protection. It is also advisable to wear a long-sleeved shirt, dress in layers and wear light colors. Generally, critters are dark in color; they are spotted easily against a light background.

- Avoid heavy perfumes or after-shaves as they attract some pests. Apply repellents according to label instructions on the product. Applying repellents to clothing appears to be most effective.

- If a pesticide is being used to control pests, follow manufacturers' instructions including the proper use of personal protective equipment (PPE) as noted on the product label and/or Material Safety Data Sheet (MSDS) for persons applying the product or entering the treated area. Allow time for dissipation prior to using a treated location. The MSDS must be available to all cast and crew upon request.

- In the case of bites or stings, serious allergic reactions are possible. If you have any known allergies, notify the set medic and/or safety representative prior to or when you first arrive at the location.

- If you are bitten or stung by an indigenous critter, immediately contact the set medic. If the encounter with the indigenous critter involves a life threatening situation, **call "911."**

- For additional precautions or questions, contact the studio safety representative, local health department, set medic or local experts in the area you will be working in.

INDIGENOUS CRITTERS

Since there are numerous types of critters, there is no way this Safety Bulletin can cover all of the various types. The following are some of the more commonly encountered critters on locations:

1. Ants:

- Are red, brown or black in color and have a three-segment body with six legs
- They are found everywhere and their bites are mild to painful
- Special precautions should be taken when working around red fire ants to keep from being bitten

2. Ticks:

- Are red, brown or black in color and have a hard-shelled body with eight legs
- Some types of ticks are very small in size and difficult to detect
- They are found in open fields, overgrown vegetation, wooded areas, and on or near animals
- Ticks live on deer, mice, and birds
- Do not attempt to remove ticks by using any of the following:
  - Lighted cigarettes
  - Matches
  - Nail polish
  - Vaseline
- **If bitten,** seek medical attention immediately. Ticks are known to carry many types of diseases such as tick paralysis, Lyme disease and Rocky Mountain spotted fever.

3. Scorpions:

- Are tan, brown or black in color and have a hard-shelled body with eight legs, claws and a barbed tail
- When a scorpion stings, it whips its tail forward over its head
- They can be found under rocks or fallen wood and are most common in the desert and southwest
- All stings are painful, however, very few are fatal

4. Stinging, Flying Insects (Bees, Hornets and Wasps):

- Are black, yellow, or red in color and have a three-segment body with wings, and a tail stinger
- They can be found everywhere and can produce a mild to painful sting which causes allergic reactions in some
- **If stung,** seek medical attention and notify the set medic. People who are allergic should carry reaction medication
- Stinging flying insects are generally dormant at night with the exception of mosquitoes
- Identification of Africanized killer bees is very difficult. Remember this type of bee is very aggressive and will attack in swarms. Extreme care should be taken if a hive is located.

5. Biting Insects

a. Mosquitoes and Flies

There are many different species of mosquitoes and flies in the United States. They can be found in wooded areas, near or on animals, refuse areas, or water, particularly standing water.

NOTE: These insects can carry various types of diseases. Malaria and dengue fever are not just found in tropical locations, it has been found in the United States. Asian "tiger mosquitoes" have been found in the Los Angeles area and are known to carry dengue fever.

b. Chiggers

- Are red, tiny and smear red when crushed
- They are prevalent throughout the southern part of the United States
- They live on the ground, around shrubs and plants, or anywhere vegetation will protect them
- They prefer shade and moist areas, but will forage for food at great distances
- They can also detect a food source from a great distance
- Chigger bites produce blisters by irritating the skin. Use chigger bite ointment to remove the itch and promote healing

6. Poisonous Spiders

a. Black Widow Spider

- Are black in color and have a two-segment body with eight legs and a red hour glass design on the abdomen
- They are prominent in warm climates and prefer cool, dry, and dark places
- They can produce painful to fatal bites

b. Brown Recluse Spider

- Are brown in color, have a two-segment body with eight legs and a violin shaped design on the abdomen
- They can produce painful to fatal bites

7. Snakes

a. Pit Vipers (Rattlesnakes, Copperheads, etc.)

- They come in sixteen (16) distinctive varieties
- There are numerous subspecies and color variations, but the jointed rattles on the tail can positively identify all
- While most are concentrated in the southwest U.S., they have extended north, east, and south in diminishing numbers and varieties so that every contiguous state has one or more varieties
- Pit Vipers produce painful to fatal bites and do not have to be coiled to strike. For example, a rattlesnake can strike out for one-half of its body length

b. Other Exotic Snakes

- When working in other foreign locations that have various other exotic snakes indigenous to the area (cobra, black mamba, etc.), these snakes produce fatal bites; therefore, the location of anti-venom is extremely important
- Different anti-venom will be required for various species
- Consult with local experts and governmental authorities

If bitten:

- Seek immediate medical attention
- Attempt to note the time and area of body bitten
- Immediately immobilize the body part affected
- Do not apply a tourniquet, incise the wound, or attempt to suck out the venom
- Do not allow the victim to engage in physical activity

Tips for Snake Avoidance:

- Always look where you are putting your feet and hands

- Never reach into a hole, crevices in rock piles, under rocks, or dark places where a snake may be hiding. If you need to turn over rocks, use a stick

- Attempt to stay out of tall grass, if you can. Walk in cleared spots as much as possible. Step on logs, not over them so that you can first see whether there is a rattlesnake concealed below on the far side

- Be cautious when picking up equipment, coiled cables, and bags left on the ground

- Never pick up a snake or make quick moves if you see or hear a rattle. If bitten by a snake, remember what it looked like. Various snakes require different anti-venoms

- Remember that rattlers are protectively colored (camouflaged)

- On hot summer days, rattlesnakes can become nocturnal and come out at night when you do not expect it. Care should be taken when working at night after a hot summer day

- Other types of snakes indigenous to the United States are **cottonmouth** and **coral snakes**. These snakes can produce fatal bites and can become very aggressive

8. Alligator and Crocodiles

- Can be found in various waterways around the world
- They have been known to attack large animals and humans and will exit the water to attack prey on the shoreline
- They can be found in both fresh and salt water
- Both the alligator and crocodile have been known to ambush their victims

9. Sharks, Sea Urchins, Rays, Scorpion Fish, Jellyfish and Other Exotic Marine Life

When working around water environment, you may contact and consult with local experts, Studio safety representatives or medical staff to become familiar with the critters in or around the water environment in question.

10. Rodents

- Locations that may involve the use of alleyways, beneath bridges, tunnels, abandoned buildings, or other structures, may involve potential contact with rats, squirrels and other rodents
- They can carry various types of diseases, which can be contracted if bitten by one of these critters
- Refer to **Safety Bulletin #26, Preparing Urban Locations** for precautions and clean up of locations that may have these types of rodents present

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #35

Safety Considerations for the Prevention of Heat Illness

This bulletin addresses safety considerations when exposed to heat. Safeguards should be taken to prevent heat illness.

INTRODUCTION

Heat stroke can be fatal. Because of the health risks, the symptoms of heat related illness must be recognized. Excess heat buildup in the body can arise through physical exertion, as well as from hot and humid weather. This can place abnormal stress on the body that can result in one or more serious medical conditions such as heat rash, sunburn, heat cramps, fainting, heat exhaustion, or heat stroke.

WHAT IS HEAT ILLNESS?

Heat illnesses are medical conditions that occur when heat builds up inside the body beyond its ideal 98.6 degree Fahrenheit temperature. There are several ways in which the body may react to excessive heat.

HEAT RASH is a skin irritation caused by excessive sweating during hot, humid weather.

SUNBURN is caused by exposure to the sun's rays. Overexposure can cause immediate burns and blisters, while repeated or long-term exposure can potentially lead to skin cancer.

HEAT CRAMPS affect people who sweat excessively during strenuous work activity. The sweating depletes the body's salt and fluids. The low salt level in the muscles causes painful cramps.

FAINTING (Heat Syncope) is caused by a lack of adequate blood supply to the brain usually as the result of dehydration and lack of acclimatization to work in warm/humid weather.

HEAT EXHAUSTION is caused by a loss of fluids from sweating and/or a lack of drinking proper fluids. Symptoms include, but are not limited to, sweating, cool or clammy skin, weakness, fatigue, nausea, vomiting, dizziness, headache, fast or weak pulse, and/or fast or slow breathing.

HEAT STROKE is a life-threatening emergency that occurs when the body overheats to a point where its temperature control system shuts down and heat builds up internally. The signs of impending heat stroke are altered behavior, convulsions, unconsciousness and, usually, lack of sweating. ***Should these symptoms occur, seek medical assistance immediately.***

SYMPTOMS OF HEAT ILLNESS

Early heat illness signs and symptoms may not always follow a progressive pattern from a mild condition such as heat rash up to the life-threatening condition of heat stroke. Thirst alone is a poor indicator of how the body is reacting to heat. Know the symptoms of heat illness to watch for:

- Discomfort
- Headache
- Fatigue
- Loss of coordination
- Vomiting
- Seizures
- Fainting
- Blurry vision
- Confusion
- Dizziness
- Irritability
- Poor concentration
- Muscle pain/cramps
- Lack of sweating or excessive sweating
- Altered behavior

TELL A SUPERVISOR IMMEDIATELY IF YOU THINK YOU OR A CO-WORKER ARE FEELING ILL FROM THE HEAT.

HEAT ILLNESS SUSCEPTIBILITY FACTORS

There are many risk factors that increase susceptibility to heat illness. They include, but are not limited to:

ENVIRONMENTAL CONDITIONS

- Hot air temperature
- High relative humidity
- Physical activity
- Radiant heat from the sun or other source
- Personal protective equipment worn
- Lack of air movement

PERSONAL CONDITIONS

- A history of heat illness
- Insufficient water consumption
- Over/under weight
- Poor level of fitness
- Lack of acclimatization
- Poor medical condition
- Use of prescription and over the counter medications and other drugs
- Consumption of alcohol, caffeine, carbonated drinks, energy drinks
- Advanced age or young age
- On a low salt diet

Consult with a doctor if you know you have risk factors for heat illness.

ACCLIMATIZATION

During the first few days of working in heat, the body needs time to adjust. This period of adjustment (acclimatization) varies by individual and can take up to a few weeks. During this acclimatization period you should:

- Start work slowly and increase the pace gradually. During a heat wave there is still a risk for heat illness even if previously acclimatized.
- Report to a supervisor if returning to work after an absence or illness, or when changing from a cool to a hot and/or humid climate.
- Supervisors and employees should be aware that acclimatization to heat can take several days and work/rest cycles should be scheduled accordingly.

HEAT ILLNESS PREVENTION

Drink Plenty of Water

Dehydration occurs quickly no matter how well acclimatized to the heat. The average person loses between 1 and 2 quarts of fluid an hour in perspiration during heavy exertion in hot weather. The only way to replace the loss (and help the body continue to cool itself) is to drink water.

- Frequently drink small quantities of water throughout the entire work shift. A minimum of 1 quart (four 8-oz cups) per hour is recommended.
- **Don't wait until thirsty to drink water.** Being thirsty is not a good signal for the need to hydrate. Drink water both before and after work. Avoid substituting soft drinks and coffee for water.
- Drinking water needs to be available for all employees at all work locations.
- Know the location(s) of the closest drinking water supplies.

Wear Appropriate Work Clothes and Cool Down Under Cover

- Know the nearest cool resting place(s). Get out of the sun or away from the source of heat and find a cool, preferably well ventilated, resting place when you are starting to overheat or need to cool down.
- Wear light-colored loose fitting long-sleeved shirt and pants, and UV sunglasses or, if appropriate, other protective equipment.
- Wear a wide brim hat (baseball caps do not cover the ears and neck).
- Use sunscreen or sun block and reapply as needed.
- Eat light meals. Hot, heavy meals add heat to the body.

SUMMARY

Heat illness is preventable. Know your limits and take time to adjust to the heat. Above all, drink plenty of water and immediately report any signs of heat illness in yourself or others.

INDUSTRY-WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #36

RECOMMENDED GUIDELINES FOR SAFELY WORKING AROUND UNMANNED AIRCRAFT SYSTEMS (UAS)

The following guidelines are for the indoor and outdoor use of UAS.

Note: Outdoor use of UAS must follow Federal, state, and local regulatory limitations or restrictions (including Federal Aviation Administration [FAA] Section 333 or Part 107 regulations), as well as Authority Having Jurisdiction (AHJ) regulations, as applicable. If there are any conflicts between these guidelines and Federal Regulations, the Federal Regulations will apply.

UAS, a.k.a. "drones", combine the use of aeronautics, electronics, and wireless transmission technologies through the use of a remote-controlled or a programmable unit. UAS types include, but are not limited to, helicopters, multi-rotor, fixed wing aircraft, small UAS (sUAS), and micro UAS.

These guidelines cover motion picture and television operations including, but not limited to, camera platforms, image and data capture, lighting, special effects, and when the UAS is flown as a prop.

Guidelines for Operation

1. The UAS Operator or Pilot in Command (PIC) must provide their authorization and/or waiver from the proper regulatory authority and/or AHJ to the production prior to any flight operations.

2. The PIC is at all times the final authority over the UAS, shall be in command over all flight operations and/or related activities, and be certified and trained, as appropriate. The PIC shall have the final authority to abort any flight operation in the interest of safety. Abort signals shall be specified ahead of time.

3. The PIC, or a person knowledgeable of the flight operation that has been designated by the UAS Operator, will establish the communication protocols with the designated production representative to implement a plan for communications.

4. Once the UAS is airborne, no change will be made to any sequence without authorization from the PIC.

5. Equipment shall not be attached to, nor altered on, the UAS without the authorization of the PIC.

6. Unless authorized by the PIC or a person knowledgeable of the flight operation that has been designated by the UAS Operator, no personnel shall approach the UAS, whether it is running or not.

7. An exclusion zone must be established for the setup, testing, takeoff, and landing of the UAS. This zone should be cleared of all debris, including trash or anything else that may hinder the operation of the UAS. All equipment (e.g., cameras, lights, sound booms, etc.) shall be placed at a safe distance away from the zone.

8. Access to areas where UAS are in operation shall be limited to authorized personnel only. All other personnel shall remain at a designated safe distance. If needed to prevent unintentional entry into potentially hazardous areas, warning signs should be posted and/or other appropriate precautions taken.

9. Never throw anything such as grip tape, clothing, paper, etc., around the UAS.

10. Personal Protective Equipment (PPE) (such as earplugs) shall be provided and worn, as appropriate.

11. The PIC, or a person knowledgeable of the flight operation that has been designated by the UAS Operator, is responsible for determining if there are any potential radio frequencies or electrical transmissions (devices such as Wi-Fi routers and mobile phone boosters or repeaters) that could interfere with or affect the safe operation of the UAS. Cast and crew members with electrical or transmission equipment should contact the PIC to see if it may affect the operation of the UAS.

12. The storage and transportation of batteries shall be in compliance with all applicable federal, state, and local laws and regulations and any shipping company restrictions. For transportation of batteries by air, refer to airline policy and International Air Transport Association (IATA) regulations.

13. Appropriate precautions (i.e. fire extinguishers, no smoking, etc.) should be taken for flammable fuel sources.

14. All UAS shall have a FAA registration number, as applicable.

15. The flying accuracy of the UAS may be adversely affected by natural conditions such as wind, air density, temperature, gross weight, humidity, and time of day. Man-made conditions such as a weight load, wind (fans), explosives disturbing airflow and center of gravity can also affect the flight control of the UAS.

16. There may be times when the UAS is used as a toy or as a prop. Safety precautions for these types of uses should be developed in conjunction with the corresponding risk they present, and when used outside is subject to FAA regulations.

17. Prior to each flight, the UAS should be inspected by the PIC, or a person knowledgeable of the flight operation that has been designated by the UAS Operator, to determine that the UAS is safe for flight.

18. Prior to each flight, the boundaries and intended flight path shall be checked to ensure they are cleared for UAS operations.

19. Authorities Having Jurisdiction (AHJ) may have their own requirements regarding UAS operations.

20. At the start of each day's filming, the PIC or a person knowledgeable of this flight operation that has been designated by the UAS Operator, and the designated production representative will conduct a briefing/safety meeting for the cast and crew and those persons necessary for filming.

    Briefings/Safety Meetings should include a discussion of the following:

    - Possible risk to personnel involved
    - Safeguards to personnel, animals, and equipment
    - Communications, including chain of command; and emergency procedures, including landing zone(s) and designated safety zone(s)
    - Boundaries and intended flight paths
    - The intended use of any stunts or special effects during UAS operations
    - Electronic devices and/or other equipment that may interfere with UAS operations
    - Obstacles, equipment and/or locations that may present a hazard
    - Abort signals, audible and/or visual, used to halt filming in the event of unforeseen circumstances or safety hazards
    - Federal, state, and local regulatory limitations or restrictions, if applicable
    - Any exemptions or waivers that are unique to the UAS operator, including flying over people, operating from a moving vehicle, flying at night, etc. and additional safety precautions that need to be taken, if any

    Note: Subsequent briefings/safety meetings may be necessary to address cast and crew members' concerns regarding other sequences, changes, and/or additional scenes.

Operation Over People

Federal regulations prohibit flying over people during UAS operations, unless the UAS Operator is specifically approved to do so or has been granted a waiver by the FAA, OR they are "participating personnel".

For the purposes of outdoor filming, Federal regulations define flying "over" people as the UAS flight path being directly over any part of a person. For example, a UAS that hovers directly over a person's head, shoulders, extended arms or legs would be an operation over people.

Participating Personnel

For the purposes of outdoor filming, Federal regulations define "participating personnel" as ONLY those that are directly participating in the safe operation of the UAS, such as the PIC and/or Visual Observer. (Flying over all other personnel, including cast and crew, requires FAA approval or waiver.)

If required for "non-participants", safe barriers may include a covered structure or a covered stationary vehicle.

Notification

The Production Company must notify all production personnel of the planned use of UAS so that any objection can be communicated prior to UAS operation. Notification can be accomplished by including a statement like the following on the call sheet:

"An Unmanned Aircraft System (UAS) will be used in close proximity to production personnel and equipment. Any personnel who does not consent to working within the UAS area must notify _____ [*please insert the assigned production designee(s)]* prior to use of the UAS."

Indoor Use

1. As a general matter of safe work practices, the "Guidelines for Operation" and "Notification" procedures listed above should be followed during indoor UAS operations.

   Note: The indoor use of UAS is not regulated by Federal regulations; however, AHJ regulations may apply.

2. Indoor conditions such as increased heat resulting in reduced air density and ventilation systems could adversely affect flying characteristics.

3. The PIC or a person knowledgeable of this flight operation that has been designated by the UAS Operator, and the designated production representative should evaluate the indoor location for items such as interior sets, walls, ceiling beams, lighting equipment, rigging, cables, HVAC equipment, etc. and consider these potential hazards before operation of the UAS. The proximity of the UAS to cast and crew and a live audience, if applicable, and any planned special effects or stunts should also be considered.

A COPY OF THIS BULLETIN SHOULD ACCOMPANY THE CALL SHEET ON DAYS THAT THE UAS IS BEING UTILIZED.