



CHAPTER 6

SPECIAL EFFECTS

- 6-1 All animals shall be trained, prepped and conditioned to work around special effects such as, but not limited to, explosions, gunfire, artillery and pyrotechnics. American Humane Society may request a demonstration and shall have the jurisdiction to remove any animals that are not trained, prepared, acclimated and conditioned to perform the required animal action.
- 6-1.1 Approval from American Humane Society must be received prior to using any special effect or chemical around animals. Upon request, production shall provide American Humane Society with the Material Safety Data Sheet (MSDS) for any special effect or chemical used for filming where animals will be present.

WATER EFFECTS (Also see Water Safety in Chapter 5.)

- 6-2 No animal shall be subjected to extreme, forceful rain simulation. Water pressure and the velocity of any fans used to create this effect must be monitored at all times.
- 6-3 Rubber mats or other non-slip material or surface shall be provided when simulating rain. If effects call for mud, the depth of the mud must be approved by American Humane Society prior to filming. When necessary, a non-slip surface shall be provided underneath the mud.

SNOW EFFECTS

- 6-4 The use of plastic flakes, Jetex foam, flocking, synthetic snow blankets, gypsum, salt, rock salt and/or aerosol shaving cream can harm some animals. The risk increases with the use of fans that may blow those materials. When animals are used with these effects, production must consult American Humane Society prior to filming.
- 6-5 Care must be taken to ensure that the materials are not ingested by animals.

STEAM EFFECTS

6-6 Steam and pressure devices must never be used in enclosed areas where animals will be working.

SMOKE/PHOTOGRAPHIC DUST EFFECTS

NOTE: Also see Industry-Wide Labor-Management Safety Committee Safety Bulletin #10, “Guidelines Regarding the Use of Artificially Created Smokes, Fogs and Lighting Effects,” and the Safety and Health Awareness Sheet titled “Photographic Dust Effects.”

6-7 Special effects products such as carbon dioxide (“dry ice”) and artificial smoke are hazardous to certain animal species. Smoke effects shall be permitted only with prior approval from American Humane Society. Producers shall use the minimum concentration necessary, and all animals should have a rest period away from the set at appropriate intervals.

6-8 American Humane Society suggests the use of water-based products around animals. Birds and insects are extremely sensitive to smoke effects, and those effects shall not be used in their presence unless approved by American Humane Society.

The following products/chemicals shall never be used around animals: fumed and hydrolyzed chlorides; ethylene glycol; diethylene glycol; mineral oils; aliphatic and aromatic hydrocarbons, including petroleum distillates; hexachloroethane; cyclohexylamine; oil crackers; Blitz Foggers; petroleum foggers; Spectrasmoke; fast-burning gray or black smoke; diesel fuel; naphthalene; titanium tetrachloride; black smoke liquid; kerosene; burning tires or rubber; and liquid nitrogen.

Upon request, American Humane Society shall be provided the MSDS for any effect to be used, prior to its use around animals.

6-9* Fuller’s earth contains silica, which is a known carcinogen. OSHA and other agencies require monitoring of air when it is used. Crushed walnut shells and other airborne debris or particles can be inhaled by animals, causing respiratory distress. Black walnut shells are toxic to horses. Some animals, **especially birds and insects**, are extremely sensitive to airborne chemicals, materials and pollutants. These substances should not be used around animals without first consulting with the animal handler, the American Humane Certified Animal Safety Representative™ and the MSDS, which shall be provided to American Humane Society upon request.

FIRE EFFECTS/PYROTECHNICS

NOTE: Also see Industry-Wide Labor-Management Safety Committee Safety Bulletins #16, “Recommended Guidelines for Safety With Pyrotechnic Effects,” and #19, “Guidelines for the Safe Use of Open Flames on Motion Picture Sets.”

- 6-10 When scenes including animals contain any fire effects, the fire must be controlled and the animals must be preconditioned to it, so as to avoid endangering them. If open fires are used, extra care must be taken to protect the animals’ coats and tails.
- 6-11 Prior approval must be received from American Humane Society before any effects involving sodium silicate, or water glass, are used around animals. This product is toxic if ingested and is considered corrosive.
- 6-12 Fireballs from air cannons shall not be used in scenes including animals.
- 6-13 When scenes including animals contain open fires such as campfires or bonfires, the American Humane Certified Animal Safety Representative™, working with the animal handler, shall determine a safe distance for the animals.
- 6-14 Unrestrained animals shall not be allowed near open fires. Animals shall not be restrained or tied near a fire with any type of device that hinders the animal from moving away from the fire. The use of leashes or leads held off-camera is a preferable and safe method. It is preferred that animal handlers in costume appear on camera with any animals near open fire, to ensure the safety of the animals being used.
- 6-15 Fire extinguishers (excluding carbon dioxide safety equipment) should not be used around animals. Animals must be moved a safe distance away prior to using fire extinguishers; the chemicals contained in them can be deadly to some animals.

CHEMICAL EFFECTS

- 6-16 Chemical effects should be avoided when animals are present. Many of the substances used to create mud, quicksand, luminous paint, bubbles, smoke, colored fire, spontaneous combustion, sparkles and sprinkles of fire, small explosions, colored water, and invisible ink are harmful to animals. Prior approval from American Humane Society is necessary when using chemical effects such as phosphorous, gasoline, silver nitrate, vermiculite, fuller’s earth and sulfur.

WIRE FLYING AND LEVITATION

- 6-17 Wire flying and levitation involving any animal shall be accomplished with proper equipment and harnessing and only after prior consultation with and approval of American Humane Society.

WEAPONS, EXPLOSIONS, PYROTECHNICS

NOTE: Also see Horse (Equine) and Livestock *Guidelines* in Chapter 8, and Industry-Wide Labor-Management Safety Committee Safety Bulletins #1, “Recommendations for Safety With Firearms and Use of ‘Blank Ammunition’”; #6, “Animal Handling,” paragraph 7; #16, “Pyrotechnic Effects”; and #30, “Recommendations for Safety With Edged and Piercing Props.”

- 6-18 American Humane Society recommends the use of replicas or rubber prop guns whenever possible (Also see Industry-Wide Labor-Management Safety Committee Safety Bulletin #1, “Firearms,” paragraph 18.)
- 6-19 Explosives and gunfire can cause serious injury or death at close distances. There is no safe distance in front of explosives and gunfire — only *safer* distances. Eye injuries and powder burns are a risk.
- 6-20 No live gun, explosive device or effect shall be aimed directly at any animal unless the animal is placed completely out of range — far enough away from the effect to prevent injury.
- 6-21 Animals working around any explosions and gunfire must be humanely trained and conditioned prior to filming. American Humane Society may ask for a demonstration of an animal’s conditioning to explosions and gunfire.
- 6-22 Scenes calling for explosives or gunfire when any animal is present must be reviewed in a safety meeting. American Humane Society must be invited to participate in this safety meeting. No animal shall work around explosives and/or gunfire until American Humane Society has given approval and is present to supervise.
- 6-23 When a weapon is fired from horseback, it shall be held at no less than a 45-degree angle to the horse’s head to decrease the risk of powder flashes causing burns to the horse’s corneas.
- 6-24 Shotguns, semiautomatic shotguns and guns using blanks shall not be fired any closer than 25 feet from any animal.
- 6-25 Non-guns use squibs up the barrel to simulate a muzzle flash and shall never be fired closer than five feet from an animal.
- 6-26 Ammunition used around any working animals shall be limited to no more than quarter loads. Though an animal may be accustomed to loud noises, there is still a danger of damage to an animal’s ears from the percussive force of the ammunition.
- 6-27 Cotton or another type of buffering device should be supplied for the animal’s ears when it is in close proximity to shooting, explosions or other loud noises. This is required unless the animal is deaf, or has been conditioned to the sounds and is positioned at a sufficient distance so that the noise will not injure the animal’s hearing or eardrums. The animal shall be conditioned to having the material placed in its ears. The material is to be removed when the immediate action involving explosives is finished.

- 6-28 Gunfire, explosives and non-guns shall never be used in close proximity to animals as to put them in jeopardy or subject them to powder burns. The level of explosives should be determined in consultation with the animal handler, the American Humane Certified Animal Safety Representative™ and an explosives expert. The amount should be limited to the smallest amount of explosives possible to achieve the shot.
- 6-29 Animals shall be checked carefully after each take to ensure that they calm down. The number of takes shall be limited, and emergency procedures — including escape prevention — shall be in place. (Also see *Guideline* 1-36.)
- 6-30 Squibs must be positioned so as to avoid endangering the animals.
- 6-31 Chemicals and products used in explosions, such as (but not limited to) gasoline, diesel fuel, burning tires, naphthalene, titanium tetrachloride, sand, fuller’s earth and black walnut shells, are toxic and may be harmful to some animals. Consult American Humane Society prior to using any of these substances.
- 6-32 The naphthalene bomb is banned on sets when animals are present.
- 6-33 Kickers, sparks, trunnion guns and “det cord” shall only be used with prior approval from American Humane Society.
- 6-34 Animals shall never be struck with skin, dust balls, bullets, zirconium spark, steel balls or glass hits. No “hit” shall be used so close to an animal as to cause it to directly strike or land near the animal, discharging particles. Production shall demonstrate the device prior to any animal being used in conjunction with filming. The American Humane Certified Animal Safety Representative™ will work with the animal handler to determine if the device will strike a safe distance from any animal.
- 6-35 Pyrotechnic bullet hit effects shall never be used around animals.
- 6-36 An experienced and licensed special effects person with excellent marksmanship shall be employed when using blowguns, air bellows, wireless arrow guns, wire-controlled guns or compressed-air delivery systems for hits, or when firing darts, arrows or knives.
- 6-37 American Humane Society shall inspect, in advance, any and all arrows, knives and spears prior to their use in any scene with animals.

UNDERWATER EXPLOSIVES

- 6-38* Underwater explosives may not be used without appropriate approval from federal, state and local agencies. Such approval must be documented and provided to American Humane Society. Those agencies list numerous aquatic and semiaquatic species that are protected, threatened, endangered or of special concern. There is often more than one agency responsible for permitting underwater explosions within a given state. American Humane Society may consult local animal and environmental authorities regarding protected species issues in the specific location.
- 6-39* Production shall notify American Humane Society prior to filming any underwater explosion and shall provide detailed, written information on explosive type, amount, size and number of charges to be detonated; blast radius; and potential threats to all animals in the vicinity and to their habitat. Careful measures must be taken by the production to prevent injury to fish, wildlife and their habitats.

OTHER SPECIAL EFFECTS EQUIPMENT

- 6-40 Care should be taken to protect animals when using animals near large fans.
- Wind that fans produce can be dangerous to animals.
 - Atmospheric effects or debris introduced into fans and the wind generated by fans can be dangerous to animals.
 - Fans can also suck in debris that can injure or be inhaled by an animal, causing injury and/or respiratory ailments.
- 6-41 When scenes employ simulated or real dust storms, blizzards or rain, steps must be taken to protect the animal's eyes, ears, nose and mouth, as supervised by the American Humane Certified Animal Safety Representative™. Upon request, production shall provide American Humane Society the MSDS for any substance, material or chemical used in creating such effects.
- 6-42 Bubble machines use liquid detergent soap, which can be toxic to some animals. Consult American Humane Society prior to using any bubble machine around animals.
- 6-43 Only candy glass or the equivalent should be used for breakaway scenes. Tempered glass is not permitted.

