Guidelines for the Use of Venomous Reptiles

Actsafe Safety Bulletin #12

This bulletin provides guidelines for working safely around venomous reptiles on set. For information regarding working around venomous snakes in the wild, see safety bulletin #31: Pests in British Columbia.

HAZARDS

Venomous reptile bites may cause punctures, abrasion, cuts, and exposure to various venoms depending on the reptile species. Exposure to venom may cause a range of local, systemic, and life-threatening reactions. The effects depend on the venom type (neurotoxic, hemotoxic, cytotoxic, myotoxic), the amount injected, and the individual's physiology. Exposure to reptile venom may cause the following reactions:

- Neurological impairment (paralysis, respiratory failure)
- Blood and vessel damage (bleeding, shock)
- Tissue destruction (necrosis)
- Muscle breakdown (myotoxicity)
- Systemic illness (nausea, collapse)
- Potential anaphylaxis (severe allergic reaction)

Venomous Snake Bites

Snakes typically inject venom from their fangs. Bites from snakes, such as cobras, mambas, vipers, rattlesnakes, etc., may cause the following reactions at the location of the bite:

- Immediate pain
- Bleeding or oozing
- Swelling
- Redness
- Warmth

Venomous Lizard Bites

Lizards deliver venom through chewing rather than fangs. Bites from lizards, such as a Gila monster, Mexican bearded lizard, or Komodo dragon may cause the following reactions at the bite location:

- Severe burning pain
- Profuse bleeding
- Nausea, vomiting
- Weakness

Salmonella

Reptiles are known to carry Salmonella, which can be transmitted orally and can contaminate surfaces. Salmonella poses a greater risk to children aged 5 years and under, older adults, pregnant women, and people with weakened immune systems. Do not touch your mouth, eat, or drink after handling reptiles. Immediately wash your hands with soap and water after handling a reptile. This must be done before touching anything else to prevent surfaces from being contaminated. Exposure to Salmonella may cause fever, diarrhea, and stomach cramps. If crew or performers working near reptiles experience symptoms the production must advise them to seek immediate medical attention.

PRE-PRODUCTION RESPONSIBILITIES

The production should engage a person qualified to handle venomous reptiles (qualified person) and ensure that any required permits (e.g., Commercial Filming Possession Permit) or licenses for the reptile have been obtained. The production should consider giving crew and performers (including background performers) prior notice that venomous reptiles will be on set.

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The production must:

- Complete a risk assessment to determine the risks and appropriate controls for performers and crew
- Ensure a safety plan is developed that includes:
  - Control measures
  - How to prevent escape and safely recapture the reptile
  - Emergency response procedures (transportation methods, medical facility contact information, etc.)
- Notify a nearby medical facility that venomous reptiles are to be used on set
- Ensure antivenom for the specific reptile species will be available at a nearby medical facility during the sequence
  - Antivenom for some exotic snakes may not be Health Canada approved and it could be difficult to find a medical facility to administer it. Other sources, such as a zoo, may need to be contacted if the medical facility does not have the correct antivenom prior to shooting
- Ensure emergency transportation to the medical facility is readily available during the sequence.

For potentially high-risk shots, consider simulating the action using computer-generated images (CGI), animatronics, or fake animal doubles to minimize the risk of injury to crew, performers, and reptiles.

SAFETY MEETING

Before using any venomous reptile, an on-site safety talk must take place. This should include the qualified person, 1st AD, and anyone who will be working with or near the venomous reptile. Safety meeting topics may include, but are not limited to:

- When, where, and how the venomous reptile(s) will be utilized
- Communication plan
- Risks and appropriate controls for performers and crew
- Emergency procedures, including location of the medical facility with the antivenom

CONTROL MEASURES

- A qualified person should supervise the use of venomous reptiles on set.
- An announcement should be made when the cage is about to be opened and when the reptile has been returned securely.
- All crew and performers that are not essential to the sequence should remain 15 metres (50 feet) from the venomous reptile.
- A closed set notice should be posted and maintained during the sequence.
- Safety precautions when the reptile is on camera may include the use of barrier glass and/or substituting performers with qualified persons or trained stunt performers.
- Consider personal protective equipment (PPE), such as puncture resistant gloves, leg guards, eye shields, etc. when appropriate.
- Performers and crew must wash their hands with soap and warm water or sanitizer after handling reptiles.
- Milking a venomous snake's fangs does not entirely remove the venom and will continue to pose a risk to crew and performers.

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EMERGENCY RESPONSE

In the event of a bite or venom contacting worker's eyes or wounds implement emergency procedures, including:

- Ensure the scene is safe; move all personnel away from the reptile
- Any person bitten by a venomous reptile should be treated at a medical facility, whether or not antivenom is administered on set.
- Call 911 and the nearby medical facility
- Provide emergency transportation to the medical facility
- Keep the affected limb still and limit movement. If possible, position the affected limb at about heart level to help slow the spread of venom.
- Keep the worker calm and still; panic increases venom spread
- Remove constrictive items (e.g., watches, rings, bracelets, etc.)
- Clean the bite with soap and water
- Mark the edges of swelling and note the time
- Cover or wrap loosely with a clean dry bandage
- Receive antivenom and medical aid

Caution

- Do not use a tourniquet or apply ice.
- Do not cut the bite or try to remove the venom.
- Do not drink caffeine or alcohol.
- Do not take pain-relieving medicine, such as aspirin, ibuprofen (Advil, Motrin IB, others) or naproxen sodium (Aleve). Doing so can increase your risk of bleeding.
- If needed, take acetaminophen (Tylenol, others) for pain relief. It does not increase bleeding risk.

RELATED RESOURCES

- OHSR 5.1.1 Biological agents designation as hazardous substances
- OHSR 5.2 General information requirement
- OHSR 6.34 & 5.54 Exposure Control Plan
- OHSR 6.40 Medical evaluation
- Safety Bulletin #31: Pests in British Columbia
- Controlled Alien Species for Film Industry & Circuses - Province of British Columbia
- Public Health Agency Salmonella and Reptiles Fact Sheet

Actsafe Safety Association

Actsafe is a not-for-profit health and safety association supporting British Columbia's arts and entertainment industries. Actsafe provides resources and training to employers, workers, and supervisors. We are always here to provide information relevant to best practices around health and safety in the arts and entertainment industries in B.C.

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