

Motion Picture Safety Primer

Equipment, Vehicles and Locations



Actsafes Motion Picture Safety Primers

This book is one in a series of three Motion Picture Safety Primers. The complete series includes:

- General Health & Safety
- Production
- Equipment, Vehicles and Locations

Feedback Request

We're always looking to improve the quality of our outreach and publications. If you have suggestions for improving this publication, we'd love to hear from you.

Feel free to contact us at 604.733.4682 or by email at info@actsafe.ca.

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Table of Contents

Introduction.....	2
Cranes and elevated work platforms.....	3
Mobile equipment.....	5
Insert-camera cars.....	7
Traffic control.....	8
Buildings.....	10
City streets.....	12
Wilderness locations.....	14
Water locations.....	15

Introduction

Mobile equipment, specialized vehicles, and unusual locations are often part of film and television production, and each can present potential hazards.

This primer describes health and safety requirements and guidelines for cranes, elevated work platforms, mobile equipment, and insert-camera cars. It also covers traffic control for locations where vehicle traffic may be a concern. Other specific locations that are discussed include buildings, city streets, wilderness locations, and water locations.

The information in this primer may be useful to employers (production companies) and workers (cast and crew).

Occupational Health and Safety Regulation

This primer includes references to the Regulation, which describe legal requirements for health and safety in British Columbia. Visit WorkSafeBC.com for an online, searchable version of the Regulation and excerpts from the Workers Compensation Act.

Cranes and elevated work platforms

Cranes and elevated work platforms such as scissor lifts and aerial platform/boom lifts must meet CSA or ANSI standards and WorkSafeBC requirements. Modifications must be authorized by the manufacturer or by a professional engineer.

Inspect the equipment

- Operators, such as crane techs or lamp ops should inspect equipment before each use.
- If you find any defects, repair the equipment immediately or tag it and remove it from service.
- Check the decal to ensure the certification has not expired. Most equipment must be certified annually.
- Keep inspection and maintenance records for each crane or elevated work platform.

Operate the equipment safely

- Inspect the area for potential hazards, and mark the safe operating zone with flags, signs, or traffic cones, or use other forms of traffic control.
- Only trained crew members should operate cranes and elevated work platforms.
- Follow the manufacturer's instructions. Keep the operating manual on site.
- Level and plumb the crane base and supporting ground.
- On inclined surfaces, use wheel chocks and blocking as per the manufacturer instructions.

- Look out for overhead power lines. Stay outside the limits of approach specified in sections 19.24–19.29 of the Regulation.
- Use appropriate fall protection equipment.
- Never sit or climb on the rails of a basket or platform, and never travel with a crew member in a basket unless the machine is specifically designed for that purpose.
- Don't step off a camera-crane platform arm until the arm has been balanced and it is safe to do so.
- Set the braking system when elevating crew members.
- Don't exceed the manufacturer's specified load limit.
- Don't try to increase equipment height by placing ladders, planks, or other objects on top of the platform.
- Avoid working from aerial platforms in extreme weather conditions.

For more information:

- OHS Regulation 13: Ladders, Scaffolds and Temporary Work Platforms
- OHS Regulation 14: Cranes and Hoists
- BC Association for Crane Safety (www.bcacs.ca)

Mobile equipment

Film and television productions often use mobile vehicles and equipment such as forklifts, motor-homes, honey wagons, and wardrobe units.

Operator responsibilities

- Have training and authorization for the intended use of the equipment.
- Operate the equipment safely.
- Maintain full control of the equipment.
- Comply with laws governing operation of the equipment.

The operator's supervisor must ensure that the operator is capable of operating the equipment safely.

Keep equipment in safe operating condition

- Inspect, repair, and maintain equipment according to the manufacturer's instructions.
- If you find any defects, tag the equipment and remove it from service for repair.
- Keep inspection and maintenance records for each piece of mobile equipment.
- Make sure rented equipment is in safe operating condition before using it.

Operate mobile equipment safely

- Follow the manufacturer's instructions.
- Don't leave the controls unattended unless you have secured the equipment against inadvertent movement.

Operate mobile equipment safely (cont.)

- When transporting material or equipment, make sure the load is secure.
- When combustion engines are used indoors, they must be monitored and proper ventilation provided.

For more information:

- OHS Regulation 16: Mobile Equipment

Insert-camera cars

Insert-camera cars must be engineered specifically for film and television production. If the operator believes that the vehicle is unsafe in any way, he or she has the authority to suspend operation of the vehicle.

- Qualified workers must rig the car.
- Inspect the car (brakes, tires, electrical system, and towing equipment) before and after each use.
- When using an insert-camera car at night, install two portable tail lights on the towed vehicle.
- Don't transport crew or equipment not directly needed for the shot sequence.
- Don't ride on the tow bar or exterior of the towed vehicle. Crew members may ride on a camera platform specifically designed for towing if they use the necessary restraints and harnesses.
- In most cases, insert-camera cars require a police escort during operation.

For more information:

- Actsafes Safety Bulletin #8: Traditional Camera Cars*
- Actsafes Safety Bulletin #8a: Traditional Camera Cars - Process Trailer/Towed*
- Actsafes Safety Bulletin #8b: Traditional Camera Cars - Camera Boom Vehicles*
- Actsafes Safety Bulletin #8c: Traditional Camera Cars - Power Line Distance Req.*

Traffic control

Traffic control is necessary in areas where vehicle traffic is a potential hazard. Whenever possible, set up designated walkways to separate pedestrians from work zones. Designated walkways must provide a safe walking surface.

Always check with the local AHJ (Authority Having Jurisdiction) in case they require special traffic control measures.

Traffic control supervisors

A traffic control supervisor, usually the production manager or location manager, oversees traffic control operations. If you need to redirect road traffic, prepare a traffic control plan in advance.

In addition, ensure the following:

- Required traffic control devices such as cones and signs are in place
- Traffic control persons (TCPs) wear the required personal protective equipment (PPE).
- TCPs are safely positioned
- TCPs work competently and safely

Traffic control persons

TCPs must be trained in the work procedures described in the *Traffic Control Manual*.

- Use the standard signals specified in the Traffic Control Manual.
- Use required PPE such as high-visibility clothes, a hard hat, a traffic control paddle, and safety footwear.

- Stand in a safe position on the driver's side of the lane under your control.
- Make sure you are clearly visible, with an unobstructed view of approaching traffic.

For more information:

- OHS Regulation 18: Traffic Control
- *Traffic Control Manual* (Ministry of Transportation and Highways)
- The Construction Safety Network (www.safetynetwork.bc.ca)

Buildings

Before filming in a building, a production company representative needs to inspect it for potential hazards. The person inspecting should be knowledgeable enough to identify a variety of health or safety concerns.

- Before arriving, ask the building owner about any health or safety issues, including the presence of hazardous materials.
- Make sure the ceilings, walls, floors, and stairways are structurally sound. If necessary, have a professional engineer evaluate the building.
- In older buildings, look for asbestos-containing materials, lead paint, and transformers that may contain PCBs.
- If you find asbestos-containing materials, choose another location or hire a qualified asbestos contractor to remove or enclose the materials.
- If you find lead paint, hire a qualified contractor to remove loose or flaking paint.
- In abandoned buildings, look for waste chemicals that may present fire and health hazards. Contact the BC Ministry of Environment or the local fire department for guidance in removal and disposal.
- Look for biological hazards such as mould, dust, or pigeon or mouse droppings. If necessary, hire a hygiene consultant to determine the risks and necessary precautions.

- Don't use drinking water from the building unless it has been tested and proven safe. For more information, contact the local health department.
- Keep a written record of the building inspection and any consultant reports.

Make sure rigging is supported

- When hanging lights or other equipment, make sure beams, pipes, and fixtures are structurally sound and capable of supporting the weight. Check the building plans or consult a professional engineer.
- Don't hang lights or equipment from sprinkler pipes.
- Don't drill holes for rigging in beams.

For more information:

- *Actsafes* form: Warehouse/Construction/Temporary Stage Space Inspection Checklist
- *Actsafes Fact Sheet #7: New Locations and Temporary Location Facilities*

City streets

It's a good idea to contact local community groups before filming in their community. They can alert you to potential hazards and neighbourhood concerns, and help you avoid confrontations with local residents.

- Will telephone poles or overhead power lines interfere with camera cranes, rain machines, or other equipment?
- What is the physical condition of the street? Potholes or high curbs can be hazards for moving vehicles and people.
- Is there a lot of vehicle traffic? If so, arrange for traffic control.

Used hypodermic needles

- Never pick up needles with your bare hands. Use tongs or wear suitable waterproof gloves.
- Dispose of needles in a suitable waste container recommended by your safety supplier.
- After disposing of needles, dispose of your gloves and wash your hands immediately.

Violence prevention

The production company must determine if there is any risk of violence. Incidents of violence include assaults, attempted assaults, and threatening statements or behaviours.

- Conduct a risk assessment if cast or crew members will interact with people not associated with the production and there is any potential for threats or assaults.

- After identifying and assessing risks, develop a violence prevention program to protect the cast and crew.
- Instruct the cast and crew about the potential for workplace violence, and train them in appropriate responses.

For more information:

- *Filming in Vancouver's Downtown Eastside* (Actsafes)
- *Take Care: How to Develop and Implement a Workplace Violence Prevention Program* (WorkSafeBC publication)
- *Actsafes Fact Sheet #7: New Locations and Temporary Location Facilities*

Wilderness locations

Wilderness locations in BC offer spectacular scenery, but they also present natural hazards such as cliffs, avalanches, and wild animals.

- Hire an experienced guide or consultant who knows the area and any special precautions that may be necessary.
- Contact local weather authorities to check weather conditions. Make sure everyone is dressed for the weather.
- Provide survival gear and first aid equipment at the location.
- Explain safety precautions and emergency procedures to the cast and crew.
- Remind the cast and crew not to drink water from lakes, rivers, or streams.
- Contact local rescue authorities such as Parks Canada or the RCMP to let them know where you will be filming.
- Set up a means of contacting people outside the location. You may need a short-wave radio or satellite cellphone.
- Prepare an emergency rescue plan tailored to your location and filming activity.
- Conduct an Avalanche Assessment.

For more information:

- *Actsafe Safety Bulletin #31a: British Columbia Wildlife*
- OHS Regulation 4.1.4: Snow Avalanche Assessment

Water locations

Before filming on water, consult local authorities and weather sources to get information about water conditions.

- After determining environmental conditions, conduct a risk assessment.
- If people will be filming in the water, consider the water temperature.
- Before filming in a swamp, bog, pond, or pool, take water samples and have them tested at a laboratory.
- When using small ponds, tanks, or vessels in the studio, keep them drained until immediately before use. Don't allow water to sit for long periods of time.
- Keep all potential contaminants away from water—including paints, thinners, repellents, gasoline, and oils.

Personal protective equipment

- Wear a personal flotation device (PFD) or life jacket if there is a risk of drowning.
- Let your supervisor know if you cannot swim.
- Wear non-slip shoes on boats. Avoid clothing that can get caught in machinery or hamper boat-to-boat transfers.

Operating boats

- Follow all boating regulations.
- Make sure the operator knows how to operate the boat competently and safely and has the appropriate certification(s) (ie. BC Boating License).

Operating boats (cont.)

- Make sure the boat is seaworthy and that all machinery and equipment on board meets WorkSafeBC requirements.
- Don't overload the boat.
- Allow only essential cast and crew members on the boat.
- Don't smoke on board.
- Put equipment and tools in their place, and secure hatch covers.
- Keep passageways clear. Don't block emergency exits.
- Keep the deck clear of slipping and tripping hazards.

Emergency backups

Have emergency backups in place, including:

- A reliable communication system.
- Safety lines, nets, observers, or divers for filming in rivers or other hazardous bodies of water.
- Emergency rescue workers downstream or a safety boat nearby.

For more information:

- *Actsafes Safety Bulletin #15: Boating Safety*
- *Actsafes Safety Bulletin #17: Water Hazards*

What is Actsafe?

Actsafes is dedicated to the promotion of health and safety in British Columbia's motion picture and performing arts industries. Our role is to provide arts workers and employers with the necessary support to ensure everyone goes home safely at the end of the day.

Actsafes is governed by the industries it represents. We operate through two standing committees that represent the motion picture and performing arts communities. Membership on these committees includes both employer and worker representatives.

Our mandate includes providing subsidized training and free industry-related communication, education, services and advice.

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