SAFE STAGES
BEST PRACTICES

THEATRE ALBERTA

WORK SAFE ALBERTA

Alberta

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FOREWORD
AND ACKNOWLEDGEMENTS

ABOUT WORK SAFE ALBERTA

Work Safe Alberta is a joint industry and Government of Alberta strategy that supports and promotes healthy and safe workplaces. Work Safe Alberta's objectives include increasing awareness, reducing injuries and illnesses, and strengthening partnerships among employers, workers, organizations and government.

Work Safe Alberta — supporting healthy and safe workplaces.

Contact us at
Workplace Contact Centre 1-866-415-8690
www.worksafely.org

WORK SAFE ALBERTA

ABOUT THEATRE ALBERTA

Theatre Alberta is the Provincial Arts Service Organization (PASO) for theatre. Theatre Alberta is a member service organization dedicated to the growth and development of the Alberta theatre community. We offer a wide range of programs and services to drama students, professional theatre artists, educators, and enthusiasts, as well as to schools, post-secondary institutions, and community and professional theatres. Theatre Alberta receives operating support from the Alberta Foundation for the Arts and the Edmonton Arts Council.

Theatre Alberta — for all stages.

Contact us at
780-422-8162 or toll free in Alberta 1-888-422-8160
www.theatrealberta.com

THEATRE ALBERTA

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Print copies of this resource may be ordered through Theatre Alberta. Safe Stages is also available online at **www.theatrealberta.com** and **www.worksafely.org**.

This resource does not replace the *OHS Act, Regulation* and *Code* and does not exempt readers from their responsibilities under the legislation.

Theatre Alberta and Alberta Employment, Immigration and Industry thank the following organizations for graciously allowing their published materials and resources to be referenced and incorporated into Safe Stages:

Theatre Ontario — To Act In Safety

www.theatreontario.org

SHAPE — Safety & Health in Arts Production & Entertainment

www.shape.bc.ca

ETNZ Entertainment Technology of New Zealand

A Guide for Safe Working Practices in the New Zealand Theatre Industry
Steve Blackburn, Nick Kyle, Phil Conroy and Rob Peters
www.evanz.co.nz/etnz

Ontario

Safety Guidelines for the Live Performance Industry in Ontario
Ontario Ministry of Labour
www.labour.gov.on.ca

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IATSE 210 — Southern Alberta Jubilee Auditorium — NLT — University of Lethbridge Faculty of Fine Arts Department of Theatre and Dramatic Arts

IATSE 212 Calgary — The Citadel — Edmonton Opera — Mount Royal College

CITT ICTS — Theatre Calgary — Walterdale Playhouse — RDC Performing Arts Red Deer College

CITT ICTS Alberta Section — Theatre Network ~ live at the ROXY — Edmonton Musical Theatre

Alberta Federation of Labour 1912 — Fringe Theatre Adventures — Central Alberta Theatre

WELCOME TO SAFE STAGES!

This resource marks the culmination of a two-year initiative spearheaded by Theatre Alberta at the request of the Alberta theatre community. Alberta Employment, Immigration and Industry—Work Safe Alberta—worked in partnership with Theatre Alberta to create and publish this resource.

Safe Stages is a guide to Alberta's occupational health and safety legislation for employers and workers in the theatre industry. The information contained within applies to all theatre companies, managers, technicians, artists and volunteers in the industry—from the largest of professional and amateur theatre companies and venues, to the smallest of independent productions and found spaces where theatre is produced.

Not all requirements under the *Occupational Health and Safety Act*, *Regulation* and *Code* are discussed in this resource. Safe Stages is not a definitive guide to the legislation and does not exempt readers from their responsibilities under applicable legislation. In case of inconsistency between this resource and the occupational health and safety legislation or any other legislation, the legislation will always prevail.

note: All drawings in this publication represent an artist's rendering of information only. Drawings are for general illustrative purposes and may not represent the exact worksite setting or be interpreted as actual depiction of the *OHS Act*, *Regulation* and *Code* requirements. Not all possible options are represented by the illustrations.

Safe Stages is meant to be read in its entirety—while certain sections may be more applicable than others, each chapter and best practice section contains information that everyone in the industry needs to be aware of.

Members of the Alberta theatre community are encouraged to actively involve themselves in the sharing and creation of health and safety best practices. Revisions, updates and supplemental information to Safe Stages will be available on the Theatre Alberta website as they arise.

Safe Stages evolved from a need to raise health and safety awareness in Alberta's theatre community, to locate occupational health and safety legislation relevant to the theatre industry, and to educate and encourage Alberta theatre companies and workers in the successful implementation of health and safety programs and best practices.

Embarking on and committing to Safe Stages took considerable dedication and fortitude. Theatre Alberta's Board of Directors recognized the importance of the initiative and responded to the needs of the theatre community, committing financial resources and staff time to the project. Members of the provincial theatre community responded in turn in support of the work, proving that Safe Stages is a community-wide and sustainable initiative, and that the health and safety of the theatre community is a top priority.

In March 2005, Theatre Alberta held an initial steering committee meeting with theatre personnel from across the province, representing professional and community theatres, professional associations and educational institutions. At this meeting it was decided that a best practices resource for theatre industry would be both beneficial and essential. Several meetings, drafts, updates, and amendments later, Safe Stages has culminated in this resource binder. Through it, the Alberta theatre community joins a growing list of industries—including the construction, oil and gas, and retail industries—that are taking proactive steps to ensure the health and safety of their workers.

Acknowledgements

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Theatre Alberta staff members involved in the administration and creation of Safe Stages include: Marie Gynane-Willis (Executive Director), Keri Ekberg (Program Coordinator), Janice Hoover (Office Administrator), and Rebecca Halliday (Program Assistant).

PART ONE

HEALTH AND SAFETY IN THE THEATRE

PART ONE: HEALTH AND SAFETY IN THE THEATRE

Chapter One

HEALTH AND SAFETY IN THE THEATRE

In This Chapter

- Occupational Health and Safety Legislation
- Health and Safety Challenges in the Theatre
- Health and Safety Advantages in the Theatre

Glossary Items

- Alberta Employment, Immigration and Industry—AEII
- Best Practice
- *Occupational Health and Safety Act—OHS Act*
- *Occupational Health and Safety Code—OHS Code*
- *Occupational Health and Safety Regulation—OHS Regulation*
- Workplace Health and Safety—WHS

Anyone who has worked in theatre—as a professional artist, an amateur artist, a board member, a technician, etc.—knows that theatre is an anomalous industry. Theatre is a business of constructing realities—simple, elaborate, metaphorical, realistic or fantastical—entirely from scratch. Each production demands an entirely new and specific setting, performance style and overall artistic mood. These demands are met with highly creative design, performance and technical solutions, often as individually beautiful and well crafted as the production itself.

"It feels like I have a lot of work to do to build and implement safety practices in my new position. Once I really started thinking about it, I found it depressing how little interest some of the companies I used to work for took in my personal safety. I found it depressing how little interest I used to take in my own personal safety."

The theatre community is aware that their work and workplaces are subject to occupational health and safety legislation, but may not necessarily be aware of what the requirements are or how to comply with them. Safe Stages is designed to assist Alberta theatre companies, artists and workers with the following:

- understanding and complying with Alberta's occupational health and safety legislation
- developing, implementing, maintaining and evaluating a successful health and safety management system
- preventing illness and injury at work
- staying safe and healthy for both work and play

Occupational Health and Safety Legislation

Whether your theatre company is professional, educational or community/amateur—and whatever your performance venue—you are legally responsible to make sure that your working environment is safe and healthy. Alberta requirements for occupational health and safety are found in the ***Occupational Health and Safety Act (OHS Act), Occupational Health and Safety Regulation (OHS Regulation)*** and ***Occupational Health and Safety Code (OHS Code)***, which together comprise all OHS legislation. These documents are available for viewing or downloading on the **Alberta Employment, Immigration and Industry (AEII) Workplace Health and Safety (WHS)** website at **www.worksafely.org** and can be purchased from the Queens' Printer at **www.qp.gov.ab.ca**. Every employer is required to have a copy of the *OHS Act, Regulation* and *Code* accessible to workers: you must either be able to locate the documents electronically at any time, or own a copy of the printed legislation.

While much of Alberta's occupational health and safety legislation applies to theatre, the *OHS Act, Regulation* and *Code* do not contain requirements that are theatre-specific. Alberta's health and safety legislation is, for the most part, hazard-based, not industry-based. It is designed to cover a broad range of professions, fields and business types, and its requirements appear to apply more readily to prominent industries with more obvious safety hazards: for example, construction, landscaping and rigging (oil—not scenery).

Safe Stages is a guide to occupational health and safety information for Alberta theatre companies, artists and workers—it explains the main principles and terms found in the OHS legislation, indicates relevant sections of legislation for various departments and jobs in the industry and offers recommendations—**"best practices"**—to help employers and workers comply with legislation and create a healthy and safe working environment. Theatre personnel are responsible for knowing the legislation and

taking all necessary steps to comply with OHS requirements. Legislated requirements are minimum requirements—best practices may, and often do, exceed these requirements.

The following list summarizes all topics covered by the *OHS Code*. Topics that are most applicable to the theatre industry are marked in bold.

Topic	Part of OHS Code
Definitions and General Application	Part 1
Hazard Assessment, Elimination and Control	Part 2
Specifications and Certifications	Part 3
Chemical Hazards, Biological Hazards and Harmful Substances	Part 4
Confined Spaces	Part 5
Cranes, Hoists and Lifting Devices	Part 6
Emergency Preparedness and Response	Part 7
Entrances, Walkways, Stairways and Ladders	Part 8
Fall Protection	Part 9
Fire and Explosion Hazards	Part 10
First Aid	Part 11
General Safety Precautions	Part 12
Joint Worksite Health and Safety Committee	Part 13
Lifting and Handling Loads	Part 14
Managing the Control of Hazardous Energy	Part 15
Noise Exposure	Part 16
Overhead Power Lines	Part 17
Personal Protective Equipment	Part 18
Powered Mobile Equipment	Part 19
Radiation Exposure	Part 20
Rigging	Part 21
Safeguards	Part 22
Scaffolds and Temporary Work Platforms	Part 23
Toilets and Washing Facilities	Part 24
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Forestry	Part 34
Health Care and Industries with Biological Hazards	Part 35
Mining	Part 36

Topic	Part of OHS Code
Oil and Gas Wells	Part 37
Residential Roofing	Part 38
Tree Care Operations	Part 39
Utility Workers—Electrical	Part 40
Work Requiring Rope Access	Part 41

Health and Safety Challenges in the Theatre

Safe Stages does not guarantee that implementing a health and safety management system or complying with occupational health and safety legislation will be easy or straightforward. Everyone in the theatre community is busy and resources are stretched. Health and safety may not always seem like a priority, especially when tech week is behind schedule and opening night is looming, but we must work together towards this end. The most compelling reason to participate in and enforce occupational health and safety is the need to protect our art form—we must maintain quality of life for people who work and volunteer in the arts. No company wants a technician or performer to be injured before or during a run and tools, equipment and scenery are costly to replace. Theatre companies also need to be concerned with potential lawsuits, charges, fines and/or jail time and worker's compensation claims arising from unsafe work conditions.

Some challenges faced by theatre companies include:

Attitude

It is not unusual to meet with resistance to health and safety within a theatre company. In an industry comprised of short-term projects and events, employers and workers do not often think towards or plan for a long-term initiative. The words "health and safety" can quickly conjure images of uniformed inspectors, stacks of insurance papers and sweeping capital renovations. Some theatre practitioners believe that prioritizing health and safety will destroy art or that the business of creating art renders the theatre industry exempt from OHS legislation: "We're special. We're different. It's not a construction site. It's temporary." Seasoned veterans might view occupational health and safety requirements as an imposition—why learn a safer method of performing a task if you have been doing it a different way for your entire career and no one has been hurt? Finally, we live by the classic saying "the show must go on"—which sometimes means "in spite of the risks involved."

Creative Risks vs. Safety Risks

"Risk taking" is a common catchphrase in the theatre industry. It is what we do. We need to understand when a creative risk crosses the line and becomes a safety risk. No matter how affecting, transformative or technically spectacular a production, an audience member's focus will be pulled from the performance if he or she can identify obvious safety hazards onstage or thinks even for a second that a performer might literally be in danger.

Changing Variables
The rehearsal and production process is comprised of several situations in which many variables—design, lighting and sound cues, props, blocking, scene changes, etc.—are introduced and/or change at once. There is heightened potential for injury at these times.

Time Pressure, Fatigue and Stress
Time is always a factor. Theatre involves frequent, hard deadlines that are often difficult to meet. Fatigue and stress are common leading up to opening night, as everyone makes sacrifices to ensure the show is ready and no one wants to "complain." It is particularly difficult to maintain health and safety awareness and ensure safe work procedures when the pressure is on, and therefore even more important for everyone to look out for each other. Everyone has the right and the responsibility to voice health and safety concerns resulting from last-minute work, late nights or flared egos.

Variety of Training and Experience
People come to work in the arts with a wide range of skills, training and experience: a degree or diploma in technical theatre or performance, hands-on training in professional or community theatres, high school productions, etc. It is rare that a group of workers will have similar backgrounds or training, or have received uniform instruction in how to perform a specific task. Furthermore, the theatre community is a mobile and seasonal work force. This means that theatre companies must offer training frequently, enforce safe work practices on a regular basis and ensure all workers are setting a good example.

Funding and Money
Most theatre companies face ongoing financial challenges that affect staffing, facility maintenance and repair, purchasing decisions, production design, etc. It is equally as important to budget for and allocate appropriate resources to health and safety activities and equipment. An effective health and safety management system is fiscally responsible because the costs associated are typically much less than that of paying financial penalties, replacing damaged equipment, lost work time, or, most importantly, having a worker injured. The bottom line in occupational health and safety for the theatre industry is this: ***if you can't afford to perform a task safely, you can't afford to do it at all.***

Health and Safety Advantages in the Theatre

Even though theatre is fraught with unique and often unusual challenges impacting health and safety, developing and implementing a health and safety management system is by no means an insurmountable task. We are a creative and diligent industry with intense respect for our work, and we believe that protecting our peers and colleagues is important. Planning for a health and safety management system is not unlike planning for a production—they are built from the ground up and molded over time, in spite of any obstacles.

Some advantages for theatre companies include:

Creativity and Ingenuity
Theatre requires creativity in all its activities, and health and safety is no different. The creative process can present many health and safety challenges—often specific to an individual production and in some cases completely bizarre—and it is not always possible to open a supplier's catalogue and find an instant solution. There are ample opportunities for creative, customized solutions.

Community
The theatre industry is a tight-knit community whose members have frequent opportunities to communicate. The same transitory nature of the work of performers, directors, designers, craftspeople and technicians that can impede health and safety education also allows workers to view and receive health and safety training from several different organizations and companies. We can work together to improve health and safety in theatres across the province.

Motivation
Theatre practitioners are notorious perfectionists—detail-oriented and insistent on producing quality work. We know that adequate rehearsal time, both in the rehearsal hall and onstage, affords greater comfort and reliability during performance. We know that our livelihood depends on staying in good health and physical shape and that a severe injury or illness can lead to months or years without work, and medical coverage may not be available. Doing a job safely means doing it right (and vice versa).

Knowledge and Enthusiasm
While there may be a few unwilling members of the theatre community, the majority of the artist and production workforce has a strong desire to improve health and safety systems and to learn the safest and most efficient practices. The Alberta theatre industry boasts an ever-expanding base of young, enthusiastic workers. Basic occupational health and safety information is part of the Alberta high school curriculum and post-secondary theatre programs include theatre-specific health and safety training for their students.

Existing Practices
Although most theatre companies do not currently have a formal health and safety management system in place, the theatre industry already uses many practices and procedures that demonstrate an acute awareness of occupational health and safety. Some of theatre's most fundamental practices—so deep-rooted that anyone who has worked on a production would know them—are done in the name of maintaining a safe work and performance environment, even if theatre practitioners do not consciously acknowledge that particular aim. Practices such as rehearsing in itself, pre-show checks of lamps and moving scenery, fight warm-ups, the provision of rehearsal costumes and props, calling "going to black" before the lights go out and glow-taping hazardous edges are all health and safety activities. A health and safety management system is simply a means of formalizing and perpetuating these common practices.

Chapter Two

HEALTH AND SAFETY MANAGEMENT SYSTEMS

In This Chapter

- Health and Safety Policy
- Health and Safety Management Systems

Appendix Items

- Health and Safety Policy 1—
  courtesy of the Professional Association of Canadian Theatres (PACT)
  www.pact.ca
- Health and Safety Policy 2—
  courtesy of Safety & Health in Arts, Production and Entertainment (SHAPE)
  www.shape.bc.ca
- Health and Safety Policy 3—
  courtesy of AEII's Partnerships in Health & Safety Program
  www.worksafely.org

A safe and healthy workplace doesn't just happen—it takes commitment, planning and everyone's active participation. Health and safety management systems are the processes used by a company to minimize the incidence of injury and illness at the workplace. They have been proven to increase productivity and quality of work, as well as generally improve worker morale. Many employers therefore view the operation and administration of a health and safety management system as a wise investment.

Health and Safety Policy

A health and safety policy is a written and signed document that reflects an employer's commitment to providing and ensuring a healthy and safe workplace. It is a statement of intent and a commitment to plan for the successful implementation of a comprehensive health and safety management system.

A health and safety policy must be:

- written
- signed by the head of the organization
- reviewed every three years (or modified as needs or legal requirements change)
- posted in a conspicuous spot in the workplace
- communicated to all workers/volunteers

Policies should address:

- the company's commitment to providing a safe and healthy workplace
- the overall goals and objectives of the company's health and safety management system
- the responsibilities of management, workers and contractors regarding health and safety
- the prevention of personal injury or illness
- the prevention of loss or damage to property, materials, product and the environment
- compliance with relevant legislation and company-specific health and safety policies and procedures in all work activities

Theatre Alberta recommends that theatre companies adopt the following credo in their health and safety policies: *there is no task so urgent that it cannot be completed safely.*

Health and Safety Management Systems

A health and safety management system is the overall set of documents, regulations, hazard assessments, inspections, control measures, training schedules and administrative procedures that allow a company to execute and realize its health and safety policy. Health and safety management systems should be viewed as works in progress with evolving issues.

The components of a health and safety management system vary depending on the nature and scope of individual industries and companies. The following components are considered to be essential for an effective health and safety management system:

- a health and safety policy that clearly demonstrates the employer's commitment to health and safety in the workplace
- assessment of hazards at the workplace
- control measures to eliminate or reduce risks from hazards

- worker competency and training
- ongoing worksite inspection
- injury/incident investigation
- emergency response planning
- system administration
- annual system evaluation

Step-by-Step Guide to Building a Health and Safety Management System

1. Make a list of all health and safety practices and information that already exist within your theatre company. Ask around—many departments and workers will have practices in place that could qualify as components of a health and safety management system and/or will have researched topics of particular interest to them. Gather all of this information together, and you may find there is already more in place than you realized.

2. Identify what legislation applies to the work you do.

3. Exercise due diligence. (See Chapter 3) This means "take every precaution reasonable in the circumstances for the protection of the worker." In order to take precautions, you need to know what hazards exist.

4. List the hazards that workers are exposed to within your company. (See Chapter 4) Hazard assessment and control is the foundation of occupational health and safety and a requirement under the *OHS Code*. Hazards include: physical (manual handling, working at heights, electricity, noise, etc.); chemical (paints, glues, fog fluids, etc.); biological (mould, body fluids, etc.); and psychosocial (stress, fatigue, violence, etc.).

5. Review the kinds of injuries that workers have experienced at your workplace. Patterns will indicate issues you need to address.

6. Take every possible opportunity to show your workers that you are committed to good health and safety practices by becoming actively involved.

Be sure to address the essential components listed above, as well as additional, company-specific elements such as communication tools, shop and rehearsal hall safety orientations, first aid, workplace hazardous materials information system (WHMIS), etc.

You can pull most of this information together on your own, but if you are starting from scratch, you may wish to arrange for a consultant or Certifying Partner to assist you. **www.worksafely.org** contains a list of health and safety consultants and Certifying Partners.

The following 3 R's sum up a general approach to health and safety management: *Respect, Respond and Require.*

Respect the incredible diversity of workers/artists and the unique nature of each project. The work in studios, shops and rehearsal halls is different every day, and it takes place in an atmosphere of continuous creativity and change.

Respond to questions and requests as quickly as possible. Artists or workers who ask questions or challenge health and safety information are engaged and should be encouraged. If there isn't an immediate answer, refer them to someone else or let them know when more information will be available.

Require people to comply with legislation, wear personal protective equipment and report all hazards, injuries and incidents to their supervisors. All theatre personnel must agree that workplace injuries and illnesses are unacceptable and work together to prevent any such occurrences.

(Theatre Company)

HEALTH AND SAFETY POLICY

_____ and its Board of Directors are committed to the health and safety of its employees, its contracted personnel, its patrons, its volunteers and others using its premises. In order to protect all its resources, both human and material, the management of _____ will make every effort to provide and maintain a safe, healthy work environment, continuously striving to eliminate any identified hazard that might result in personal injury or illness and/or property damage.

This commitment will be fulfilled through the policies and procedures of our Health and Safety Program, in compliance with all federal and provincial legislation. The Health and Safety Program will be reviewed annually to ensure its ongoing effectiveness.

Health and safety, however, must be a personal as well as corporate commitment. Hazards in the workplace can only be controlled by active employee involvement at all levels; thus _____ requires that all its workers and supervisors share its dedication to health, safety and incident prevention. Supervisors, who will be held accountable for the health and safety of workers under their supervision, are responsible for ensuring that machinery and equipment is safe, and that workers receive adequate training in their specific tasks and follow safe work procedures established by _____ _____. Each worker, in turn, must protect his or her own health and safety by working in compliance with the law and with those same established procedures.

At _____, the health and safety of the public and of our personnel is of prime concern. There is no task so urgent that it cannot be completed safely. We trust that each of you will join us in a personal commitment to health and safety.

Artistic Director

General Manager

Board Chair

Board Vice-Chair

JHSC Management Co-Chair (If applicable)

JHSC Worker Co-Chair (If applicable)

Date

_____

(Theatre Company)

HEALTH AND SAFETY POLICY

_____ and its Board of Directors intend to be a healthy and safe working and performing environment.

To achieve this, management has established and will maintain an occupational health and safety plan designed to prevent injuries and disease through prior planning and regular worker orientation and training meetings, safe work practices, hazard assessments and inspections.

All employers involved in this production are responsible for providing their workers with adequate instruction in health and safety and for addressing unsafe situations in a timely, effective manner.

All workers, volunteers and service contractors are required to work safely and to abide by any posted health and safety rules of this production and their own company guidelines for safe work procedures.

_____ _____

Artistic Director | General Manager

_____ _____

Board Chair | Board Vice-Chair

_____ _____

JHSC Management Co-Chair (If applicable) | JHSC Worker Co-Chair (If applicable)

_____

Date

(Theatre Company)

HEALTH AND SAFETY POLICY

_____ is committed to a health and safety management system that protects our staff, our property, other workers who enter our property and the general public.

Employees at every level are responsible and accountable for _____ _____ health and safety performance. Active participation by everyone, every day, in every job is necessary for the safety excellence _____ expects.

Management will set an example and provide leadership in the health and safety system. Management will set a health and safety policy and work procedures, and provide proper equipment and training. Employees are responsible for following all procedures, working with an awareness of health and safety and co-operating in working towards improved health and safety conditions at work.

Employees at every level should be familiar with the requirements of the Alberta Occupational Health and Safety legislation as it relates to their work processes.

Our goal is a health injury free workplace for all employees. By working together in all parts of this program, we can achieve this goal.

Let's put health and safety to work for all of us!

Artistic Director

General Manager

Board Chair

Board Vice-Chair

JHSC Management Co-Chair (If applicable)

JHSC Worker Co-Chair (If applicable)

Date

Chapter Three

EMPLOYERS AND WORKERS: ROLES AND RESPONSIBILITIES

In This Chapter

- Employers
- Prime Contractors
- Workers
- Students
- Employer and Worker Responsibilities
- Imminent Danger
- Due Diligence
- Penalties and Fines
- Insurance
- Workers' Compensation

Glossary Items

- Competent Worker
- Due Diligence
- Employer
- Imminent Danger
- Prime Contractor
- Reasonable Person Test
- Reasonably Practicable
- Worker

Appendix Items

- Imminent Danger Procedure
- Due Diligence Checklist—
  courtesy of the Canadian Centre for Occupational Health and Safety
  www.ccohs.ca

The *OHS Act* sets laws to protect and promote the health and safety of workers throughout Alberta. It outlines the responsibilities of employers, as well as the responsibilities of workers. This chapter details these responsibilities and discusses "due diligence" in the workplace.

Understanding the definitions and applications of employer and worker in the theatre industry can be a difficult task. We work simultaneously for professional, independent or community theatres, either on salary, on contract or as a volunteer. We produce in venues rented from other theatre companies and in found space managed by other industries, as well as present other companies' work in our own venues.

Health and safety success is dependent on understanding and fulfilling your roles and responsibilities, and it is therefore important to clearly identify who the employer(s) and worker(s) is in each and every work situation. While individual companies will differ in how they delegate health and safety responsibilities and tasks, these responsibilities and tasks must be delegated and exercised. All roles and responsibilities must be determined before work starts: both at the start of the production season and for each individual production.

Employers

Under the *OHS Act*, **employers** are responsible for ensuring the health and safety of all workers at the worksite. Specific requirements are outlined throughout the *OHS Act, Regulation* and *Code* depending on the work that is to be done.

You are an employer if:

- you employ one or more workers
- you are designated by your employer to represent the employer
- you are self-employed

Reference: *OHS Act*, Section 1(k)

"Employers" in the theatre can be board members, producers, artistic directors, general managers, production managers, technical directors, etc. depending on the company and the work being performed. It is recommended that theatre companies clearly identify who is performing the responsibilities of the employer in each and every work situation.

Prime Contractors

If there are two or more employers involved in work at a worksite at the same time, there must be a **prime contractor.**

The prime contractor for a worksite is:

- the contractor, employer or other person who enters into an agreement with the owner of the worksite to be the prime contractor, or
- if no agreement has been made or is in force, the owner of the worksite

Reference: *OHS Act*, Section 3

Situations where "prime contractor" status may be applicable in the theatre include the presentation of touring productions, the producing of theatre in rented or found venues and any work where several self-employed workers are working together, such as co-ops and freelance call work. The delegation and/or transfer of Prime Contractor status is the responsibility of the owner of the worksite; agreements should be in writing.

Workers

- a **worker** is any person engaged in an occupation, including volunteers
- workers must take reasonable care to protect the health and safety of themselves and other workers

Reference: *OHS Act*, Section 2 (2)

Students

OHS legislation does not apply to students receiving training in an educational setting, regardless of the activities being performed, e.g. woodworking class at a grade school, automotive repair course at a technical school, chemistry laboratory course at a university, etc. Responsibility for the health and safety of students rests with the school under existing legislation that applies to educational institutions.

Secondary and post-secondary theatre instructors, drama teachers and programs/departments should, however, endeavour to meet all legislated responsibilities of employers, including the operation and administration of a health and safety management system. Students should be informed of and protected from hazards, as well as trained in hazard control methods and other health and safety practices as part of their course work.

Employer and Worker Responsibilities

Every province and territory in Canada has similar occupational health and safety legislation that describes the obligations of employers and workers. In Alberta, this is outlined in Section 2 of the *OHS Act:*

Employers must ensure, as far as it is reasonably practicable to do so:

- the health and safety of all workers at their worksite
- that workers are aware of their responsibilities and duties under occupational health and safety legislation

Workers must:

- take reasonable care to protect their own health and safety
- take reasonable care to protect the health and safety of their fellow workers
- cooperate with their employer to these ends

Suppliers must ensure, as far as it is reasonably practicable to do so:

- that all materials (tools, appliances, equipment, hazardous substances, etc.) they supply are in safe operating condition
- that all materials (tools, appliances, equipment, hazardous substances, etc.) they supply comply with OHS legislation

Contractors must ensure, as far as it is reasonably practicable to do so:

- that employers working under them at a worksite comply with OHS legislation

Reference: *OHS Act*, Section 2

Additional key employer responsibilities include:

- informing workers of any dangers at the worksite
- ensuring workers have the training and experience needed to do their jobs safely
- ensuring workers perform their duties as required by OHS legislation
- keeping equipment in safe working order

If work is to be done that may endanger a worker, the employer must ensure that the work is done:

- by a worker who is competent to do the work or
- by a worker who is working under the direct supervision of a worker who is competent to do the work

Competent refers to a worker who is *adequately qualified, suitably trained and has sufficient experience* to carry out the work safely. A competent worker requires no supervision or only minimal supervision.

Reference: *OHS Regulation,* Section 13

Imminent Danger

EXAMPLE

A stage crew member who has not been trained in fall protection is asked by his employer to work at a height of 7 metres (20 feet). Fall protection is required for work above 3 metres. The crew member must refuse to carry out the work as he is not considered competent and inform the employer of the refusal and the reason for the refusal. The employer must investigate and take action to eliminate the danger. To eliminate the danger, the employer could have another crew member who is competent perform the work and use the appropriate fall protection.

Workers in Alberta have the duty to refuse work in the case of **imminent danger**. Imminent danger means any danger that isn't normal for a job, or any dangerous conditions under which a worker wouldn't normally carry out their work. If workers think their work may put them or another worker in imminent danger, they *must* refuse to do it.

Reference: *OHS Act,* Section 35

Due Diligence

Due diligence is the level of judgment, care, prudence, determination and activity that a person would reasonably be expected to exercise under a situation's particular circumstances. It is both an important legal and cultural component of an organization's health and safety management system.

Applied to occupational health and safety, due diligence means that employers must take all reasonably practicable precautions to prevent injuries or incidents at the worksite. This duty also applies to situations that are not specifically addressed in OHS legislation. For example, if a theatre decided to include a bungee trapeze routine in a production, they would be expected to take all reasonably practicable precautions to prevent injuries and incidents, even though there is no specific reference in the *OHS Code* to that type of work.

Reasonably practicable may seem like a subjective method of determining a defendant's guilt or innocence, however it is a legally defined term that is measured using the **reasonable person test.** The reasonable person test is an assessment of what a dozen peers would consider reasonable under a similar set of circumstances. The result is a balanced, wise and defendable judgment.

All elements of due diligence—plans and actions taken to ensure the safety of workers—must be documented and in effect in the event of an injury or incident. Due diligence is demonstrated by your actions before an incident or injury occurs, not after.

Penalties and Fines

Failure to comply with OHS legislation can result in significant penalties. The penalty for a first offence in Alberta can be up to six months of jail-time or $500,000, or both; for second or subsequent offenses the penalties double. While these costs are significant, the emotional costs of losing a fellow worker and economic costs of lost work time or destroying a piece of important/expensive equipment are far greater.

The Criminal Code of Canada allows law enforcement agencies to charge organizations and individuals who fail to protect *workers and the public* with criminal negligence. The duty requires that reasonable steps be taken to prevent physical harm to any person, be they workers or members of the public who may enter or be affected by a workplace. This Criminal Code duty applies to any individual or representative of any organization (including informal, non-incorporated groups) who direct the work of another.

Insurance

As with any industry, insurance is a challenging issue. Most theatre companies will require various types of insurance policies, depending on the work done by the company, the number of workers/volunteers employed and whether or not the company owns, manages or rents their theatre space.

It is always advisable to research and discuss insurance options with a qualified insurance broker. Following that, ensure that someone on the Board of Directors or on staff at your theatre company intimately understands the clauses and intricacies of your company's insurance policies.

The following policies are common for theatre companies:

Commercial General Liability Insurance—covers those employed by or working on behalf of the theatre company and its members (includes the Board of Directors)

Property Insurance—covers the physical plant and its contents (if you own or manage a venue, your insurance broker should visit annually for an inspection of the facility; you must also annually report added assets, such as renovations and technical equipment)

Tenant's Legal Liability Insurance—covers your company while working in a rental facility for damages caused to the rental facility while under the control of the theatre company; most rental facilities require this of each renter

EXAMPLE

A professional tradesperson works full-time for a roofing company and volunteers evenings and weekends to build sets for a community theatre. While installing a set one evening, the tradesperson trips on a tool left on the stage and breaks his ankle, leaving him in a cast for four weeks and unable to do any paid or volunteer work. If the community theatre company has a WCB policy for its volunteers, they can apply for workers' compensation on the tradesperson's behalf. Compensation will be assessed based on his lost hours at the roofing company as well as any lost volunteer hours. If, however, the company does not have a WCB policy, the WCB will view the injury as sustained through a "hobby," and the tradesperson will not be able to seek compensation through either the community theatre or the roofing company. In this case the worker could sue the theatre company.

Workers' Compensation

Workers' Compensation is a disability insurance system that protects employers and workers from the impact of work-related injury or occupational disease. It compensates workers for lost income, health care and other costs related to their injury or illness. It also protects employers from being sued by their workers if they are injured as a result of their work.

The Workers' Compensation Board (WCB) Alberta (**www.wcb.ab.ca**) is a non-profit corporation legislated to administer the workers' compensation system for the province. Employers pay premiums to fund this no-fault system that provides compensation to workers for work-related injuries and occupational disease.

All Alberta theatre companies with paid workers are required to have a WCB account. Companies can also apply to the WCB in writing for additional coverage for their volunteers. If a volunteer is injured or becomes ill while working for the theatre company, the WCB will assess the volunteer's total lost earnings from **all volunteer and paid positions.**

Volunteer-run amateur theatre companies can also apply for a WCB policy. Under this policy, a volunteer injured or rendered ill while performing unpaid work for the theatre company could receive workers' compensation for his or her total lost earnings from all full- or part-time "day jobs" and volunteer hours.

If a theatre company (professional or amateur) applies for WCB coverage for its volunteers, the company must pay WCB premiums for **all volunteers** at the theatre.

Under the *Workers' Compensation Act*, employers must complete and submit a reporting form within 72 hours of a report or notification of a work-related injury or occupational illness (see Chapter 6 for more information).

(Theatre Company)

IMMINENT DANGER PROCEDURE

The *OHS Act*, Section 35, outlines the worker's duty to refuse work in the case of imminent danger. Imminent danger means any danger that isn't normal for a job, or any dangerous conditions under which a worker wouldn't normally carry out their work. If workers think their work may put them or another worker in imminent danger, they *must* refuse to do it.

- If you are in a situation where there is imminent danger, you are required to stop work.
- Explain to your employer/supervisor why you stopped work.
- Your employer must then investigate the situation and take action to correct the danger.
- If your employer is not at the worksite, they must appoint someone who is responsible on site.
- Your employer can assign you to other work until the problem has been investigated and is fixed.
- Or, your employer can ask someone else to do the work if that person is trained to safely handle the danger.
- Your employer must give you a written report of what the investigation found and what action was taken.
- If your employer does not agree that there is a danger, or you can't agree on a way to fix the danger, you should contact Workplace Health and Safety (1-866-415-8690).
- An occupational health and safety officer will investigate the situation and make a decision about what action to take.
- Both you and your employer must comply with the officer's decision.
- If you or your employer disagrees with the officer's decision, you can request that the Occupational Health and Safety Council review the matter.
- Your employer may not discipline or fire you because you refuse to do work that presents or poses an imminent danger.

(Theatre Company)

DUE DILIGENCE CHECKLIST

Do you know and understand your safety and health responsibilities?	☐ Yes	☐ No
Do you have definite procedures in place to identify and control hazards?	☐ Yes	☐ No
Have you integrated safety into all aspects of your work?	☐ Yes	☐ No
Do you set objectives for safety and health?	☐ Yes	☐ No
Have you committed appropriate resources to safety and health?	☐ Yes	☐ No
Have you explained safety and health responsibilities to all employees and made sure that they understand them?	☐ Yes	☐ No
Have employees been trained to work safely and use proper protective equipment?	☐ Yes	☐ No
Is there a hazard reporting procedure in place that encourages employees to report all unsafe conditions and unsafe practices to their supervisors?	☐ Yes	☐ No
Are managers, supervisors and workers held accountable for safety and health?	☐ Yes	☐ No
Is safety a factor when acquiring new equipment or changing a process?	☐ Yes	☐ No
Do you keep records of your program activities and improvements?	☐ Yes	☐ No
Do you keep records of the training each employee receives?	☐ Yes	☐ No
Do your records show that you take disciplinary action when an employee violates safety procedures?	☐ Yes	☐ No
Do you review your health and safety management system at least once a year and make improvements as needed?	☐ Yes	☐ No

Chapter Four

HAZARD ASSESSMENT AND CONTROL

In This Chapter

- Identifying and Assessing Hazards
- Eliminating and Controlling Hazards
- Engineering Controls
- Administrative Controls
- Personal Protective Equipment (PPE)

Glossary Items

- Hazard
- Hazard Assessment
- Hazard Control
- Personal Protective Equipment (PPE)
- Safe Work Practice
- Safe Work Procedure
- Standards

Appendix Items

- Hazard Assessment Form—
  courtesy of AEII's Health and Safety Toolkit for Small Business
- Hazard Assessment Checklist—
  courtesy of SHAPE's Health and Safety Guide For Live Performance (Theatre)
  www.shape.bc.ca

Hazard assessment and control is the foundation of occupational health and safety and a requirement under Part 2 of Alberta's *OHS Code*. All employers must perform and formally document regular hazard assessments at their worksites.

Identifying and Assessing Hazards

A **hazard** is any condition or circumstance that has the potential to cause injury or illness. Within the theatre industry, hazards should be identified and assessed on three levels:

- for the facility/venue/worksite
- for each department (Wardrobe, Props, Scenic Construction, Scenic Art, Stage, Front of House, etc.)
- for each production and the activities involved

Benefits of performing hazard assessments include reducing the number and severity of workplace injuries or damages to equipment and property; identifying poor or missing procedures; identifying areas that need worker training; increasing workers' ownership of occupational health and safety; and providing a useful tool when investigating incidents.

Hazards are typically grouped into four categories:

Physical Hazards	• Lifting and handling loads (e.g. manually moving set pieces) • Repetitive motions • Slipping and tripping hazards (e.g. poorly maintained floors) • Moving parts of machinery • Working at heights (e.g. hanging lights) • Vehicles (e.g. forklifts, trucks) • Fire • Electricity (e.g. poor wiring, frayed cords) • Excessive noise (e.g. power tools, music, sound effects) • Inadequate lighting • Extreme temperatures
Chemical Hazards	• Liquids (e.g. paints, solvents, cleaner, bleach) • Dusts (e.g. from grinding, sandblasting) • Fumes (e.g. welding) • Mists and vapours (e.g. dry ice) • Gases (e.g. engine exhaust)
Biological Hazards	• Viruses, fungi, bacteria • Moulds • Blood and body fluids
Psychosocial Hazards	• Working conditions • Stress • Fatigue • Workplace violence • Working alone

Employers must:

- assess a worksite identifying existing or potential hazards
- prepare a written and dated hazard assessment that includes the methods used to eliminate or control the hazards identified (a properly completed checklist is acceptable as a written hazard assessment)
- where possible, involve workers in the hazard assessment
- make sure workers are informed of the hazards and the methods used to control the hazards

An employer must make sure that a hazard assessment is done:

- at reasonably practicable intervals to prevent the development of unsafe and unhealthy working conditions
- when a new work process is introduced
- when a work process or operation changes
- before the construction of significant additions or alterations to a worksite

Reference: *OHS Code*, Part 2

In its simplest form, a hazard assessment answers the question "What if ...?"

- there isn't a guardrail on the staircase the sword fight takes place on?
- the actors are allowed to do costume quick-changes in the prop shop?
- the scenic painters do last-minute touch-ups in the theatre rather than in the ventilated paint shop?

All equipment, tools, work areas and processes are to be carefully assessed for hazards. Management, production managers, technical directors, designers, craftspeople, stage management, directors, actors and crew should work together to identify hazards.

There are a number of ways to identify hazards:

- **walk around** the worksite and look at how work is done; **ask** workers what they consider unsafe
- **think** about what could possibly go wrong, being sure not to overlook things that people may have "worked around" for years
- **review** any information you have on a particular piece of equipment (manufacturer's specifications) or chemicals (Material Safety Data Sheet [MSDS]) to see what it says about safety precautions
- **review** incidents that have occurred at the worksite
- **talk** to others in the industry to find out what hazards they have identified and/or what sort of incidents they have had

Formal processes for conducting hazard assessments include:

- **physical inspections** using a checklist
- **task or job hazard analysis**—breaking down jobs into tasks and identifying the hazards involved with each task
- **process analysis**—following a process from start to finish and identifying the hazards involved at each stage
- **incident investigation findings**—results of incident investigations may identify the hazards involved

Each identified hazard must be documented. Hazards that workers will have to contend with in the very near future, that have the potential to affect a large number of workers or that pose a severe risk of injury or illness must be considered high-risk hazards and dealt with immediately.

Eliminating and Controlling Hazards

Whenever possible, hazards should be eliminated. If this is not possible they must be controlled. Control means reducing the hazard to levels that present a minimal risk to worker health. Controls, in order of preference, include:

- engineering controls
- administrative controls
- personal protective equipment (PPE)

Finances and budgeting are always an issue in occupational health and safety—but eliminating and controlling hazards does not always have to mean shelling out funds for capital expenses. For example, if a work platform poses a fall hazard, a supervisor could erect a temporary guardrail to prevent workers from falling; meanwhile, the Board of Directors could plan for a permanent guardrail in next year's budget.

Engineering Controls

Engineering controls physically control hazards and are the first and preferred choice of hazard control methods, after elimination. Examples include:

- Substituting the hazardous material or task with something safer, such as using smaller packages to reduce the weight of items that have to be manually handled, using a less toxic chemical, etc.
- Isolating noise using soundproof barriers, using an enclosed spray booth for spray painting, using remote control systems to operate machinery, etc.
- Building a catwalk with guardrails and a permanent access ladder instead of using a portable ladder, installing local exhaust ventilation, etc.

Administrative Controls

Administrative controls are the second choice of hazard control methods and include: the development and use of **safe work practices**; **safe work procedures**; worker training, scheduling and supervision; company purchasing decisions; preventative maintenance programs; signage; etc.

Any identified hazardous task or situation that workers may undertake or find themselves in should have an accompanying safe work procedure/practice. These are formal and written documents developed by employers in direct consultation with the workers who do the work. When inclusively developed and enforced, safe work procedures increase awareness and confidence in the workplace.

Safe work procedures/practices are recommended when specific direction is required to safely complete a task. Such tasks may include:

- using hand and power tools
- working at heights—including the use of ladders and personnel lifts, orchestra pits, etc.
- installing and striking venues and sets
- hanging, cabling, patching and focusing lights
- rigging and flying operations
- working alone

Personal Protective Equipment (PPE)

Personal protective equipment (PPE) is a form of hazard control used to lessen the potential harmful effects of exposure to a known hazard. Although an important part of health and safety management, PPE is considered the last resort of hazard control, used only after engineering controls and administrative controls have been shown to be impractical, ineffective or insufficient.

Employers must:

- identify what type of and when PPE is required based on hazard assessments
- ensure workers are trained in the correct use of all required PPE
- ensure workers wear/use PPE
- ensure PPE is maintained and is in a condition to perform the function for which it was designed
- ensure PPE meets **standards** listed in the *OHS Code*

Workers must:

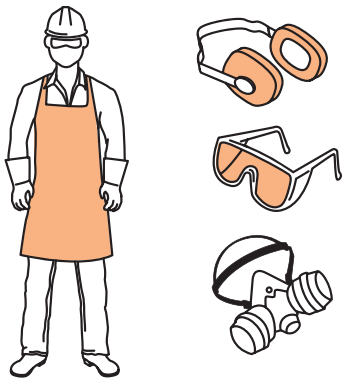
- maintain and use appropriate PPE as required

Reference: *OHS Code*, Part 18

Types of PPE required for work in theatre may include, but are not limited to:

- body protection (coveralls, chemical protective clothing, aprons, sunscreen)
- eye protection (safety/impact glasses, splash goggles)
- face/eye protection (welding face shields)
- fall protection (fall arrest harnesses)
- foot protection (safety footwear)
- hand protection (various gloves)
- head protection (hard hats)
- hearing protection (ear plugs, ear muffs)
- respiratory protection (air-purifying respirators)

PPE should be inspected before each use and maintained and stored according to manufacturer's specifications. PPE should not be modified to reduce discomfort.



personal protective equipment

Employers have several options for providing PPE. They may:

- provide PPE at the workplace
- provide an allowance for workers and volunteers to purchase PPE
- require workers to obtain and bring their own PPE as a condition of employment or volunteering (and then ensure that the PPE is acceptable)

note: for tasks posing respiratory hazards, employers must provide and ensure the availability of appropriate respiratory protective equipment for workers

(Theatre Company)

HAZARD ASSESSMENT FORM

Company _____ Date of Assessment _____

Location _____ Completed By _____

Step 1: Hazard Identification

Check off all hazards or potential hazards at your worksite and add any additional identified hazards specific to your worksite.

Physical Hazards

- ☐ Lifting and handling loads
- ☐ Repetitive motion
- ☐ Slipping and tripping
- ☐ Moving parts of machinery
- ☐ Working at heights
- ☐ Vehicles
- ☐ Fire
- ☐ Electricity
- ☐ Noise
- ☐ Lighting
- ☐ Vibration
- ☐ Other: specify _____

Chemical Hazards (identify chemical/ fume/mist/vapour)

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Biological Hazards

- ☐ Viruses
- ☐ Fungi (mould)
- ☐ Bacteria
- ☐ Blood and body fluids
- ☐ Sewage
- ☐ Other: specify _____

_____

_____

Psychosocial Hazards

- ☐ Working conditions
- ☐ Workplace violence
- ☐ Fatigue
- ☐ Stress
- ☐ Other: specify _____

_____

- ☐ Other: specify _____

_____

Step 2: Hazard Control

List all of the hazards identified on the checklist above and identify the controls that are in place for each: engineering controls, administrative controls, personal protective equipment or combinations of these.

Hazard	Controls in Place			Follow-up Action Required	Date/Person Responsible
	Engineering	Administrative	PPE		
lifting and handing loads	mechanical lift	safe work procedures and required worker training	none	worker training program needs to be repeated in one month	May 12, 2006/ Jane Doe
slipping and tripping		safe work procedures for housekeeping	proper footwear	send reminder to human resources to ask new workers to purchase and bring footwear	May 16, 2006/ Bill Jones
spray paint used to paint backdrop	purchase latex paint; dispose of/dontate spray cans	safe work procedures for housekeeping	proper footwear	ask head of scenic art to revise purchase orders	May 30, 2006/ Cathy Smith

Step 2: Hazard Control

List all of the hazards identified on the checklist above and identify the controls that are in place for each: engineering controls, administrative controls, personal protective equipment or combinations of these.

Hazard	Controls in Place			Follow-up Action Required	Date/Person Responsible
	Engineering	Administrative	PPE		

(Theatre Company)

HAZARD ASSESSMENT CHECKLIST

Use this checklist to help identify hazards. Many of the items will not apply to your production. Simply check off those that do. When you have identified a hazard, you must correct it and document the actions you took.

Venue Conditions

The venue owner is responsible for maintaining the building in a condition such that workers will not be endangered. If you are renting a reputable performance space, be sure to request that the rental agreement includes a statement from the owner or manager that all building systems are in safe working order. In other situations, you may have to do much more to ensure that your installation can be done safely.

- ☐ **Check with manager/owner if there are any known hazards associated with the venue.**
- ☐ **Review previous hazard assessments at the venue.**
- ☐ **Review engineering reports and floor plans that outline pick points, weight loads and structural issues.**
- ☐ **Check that any permanent rigging system is well maintained.**
- ☐ **Check that all ropes, chains and other lines on which scenery is flown are safely secured.**
- ☐ **Check for any fall hazards.**
- ☐ **If there is an orchestra pit, check that it has safety nets or railings in place.**
- ☐ **Ensure all trap doors and pits are adequately marked.**
- ☐ **Check that stage floors have appropriate resiliency, traction and are free of splinters, nails and other hazards.**
- ☐ **Determine if there is a first aid room.**
- ☐ **Determine if there are adequate dressing rooms for performers.**
- ☐ **Ensure there are men's and women's washrooms for performers, other workers and audience.**
- ☐ **Determine if there is adequate security at the site especially for those working alone at night.**

Electrical

- [ ] Check for any potential live electrical hazards (exposed wiring, open electrical boxes, etc.).
- [ ] Check that AC power is grounded and output is adequate for demand required.
- [ ] Check that temporary electrical wiring is clearly marked and secured on floors to prevent tripping.
- [ ] Ensure stage lights are properly secured and backed up with safety chains.
- [ ] Ensure there is adequate lighting backstage.

Stairways

- [ ] Make sure treads and backstage stairs are in good condition.
- [ ] Check that stairwells are properly lit.
- [ ] Check that alleyways are clear of litter and obstacles.

Special Effects

- [ ] Determine what fogs, smoke or other special effects will be employed in performance.
- [ ] Make sure the appropriate Material Safety Data Sheets (MSDSs) are available for reference.
- [ ] Make sure appropriate hearing protection for noise (from firearms, explosions, tools, etc.) is provided.
- [ ] Make sure the appropriate fireproof curtains, props, sets and costumes are used to comply with fire plan.
- [ ] If black light is used, ensure that it is low in harmful ultraviolet radiation.
- [ ] Ensure there are adequate precautions and warnings posted for the use of strobe lights.
- [ ] If pyrotechnics will be used, confirm that the necessary permits and permissions for workers and the venue have been obtained.

Scenery Construction

- [ ] Have thorough conference with the director, designer, technical director, choreographer and other specialists to determine specifications for scenery pieces.
- [ ] Make sure all scenic units are adequately tested before actors are trained on them.
- [ ] Ensure that, if the stage is raked, it is no steeper than a safe 1:12 ratio.
- [ ] Make sure proper precautions are taken for storage and use of any flown scenery.
- [ ] Allow any paints, dyes and solvents used in construction to dry or evaporate completely before props, sets and costumes are used.
- [ ] Design hand props with consideration for their specific onstage use.
- [ ] Check props for rough edges and other hazards before giving them to performers.
- [ ] Ensure performers and other workers are properly instructed in use of personal protective equipment.

Rigging and Fall Protection

- [ ] Know the fall protection or prevention issues related to your show and determine what fall protection equipment will be needed for performers and other workers.
- [ ] Make sure a competent rigger is supervising all rigging and all flying effects.
- [ ] Provide written procedures for flying effects to performers and other workers.
- [ ] Make sure qualified personnel co-ordinate and train performers and other workers in use of any lifts (scissor, boom, snorkel lifts, etc.)
- [ ] Ensure ladders are safe and in good condition.
- [ ] Place guardrails and hand railings on raised platforms and staircases where possible.

Chapter Five

COMMUNICATION AND TRAINING

In This Chapter

- Communication Systems
- Worker Training

Glossary Items

- Equipment
- Joint Health and Safety Committee (JHSC)
- WHMIS (Workplace Hazardous Materials Information System)

Appendix Items

- Suggested Agenda Items for Performer, Shop Worker and Stage Crew Orientations—courtesy of SHAPE's Health and Safety Guide For Live Performance (Theatre) **www.shape.bc.ca**
- Quick Reference Orientation Form for Workers/Health and Safety Notice Board—courtesy of the Stratford Festival of Canada **www.stratford-festival.on.ca**
- Script for Acting Company Health and Safety Orientation—courtesy of the Stratford Festival of Canada **www.stratford-festival.on.ca**
- Policy for Reporting and Resolving Health and Safety Concerns—courtesy of the Stratford Festival of Canada **www.stratford-festival.on.ca**
- Emergency Contact Information & Medical Concerns Form—courtesy of the Stratford Festival of Canada **www.stratford-festival.on.ca**

Communication with workers and worker training are important steps and ongoing processes in ensuring occupational health and safety awareness and performance. Clear and open communication and frequent training opportunities encourage everyone to support and participate in health and safety activities.

It is important to involve workers in decisions that may affect their well being and ensure they are prepared and equipped to manage occupational health and safety concerns. Generally, the workers actually doing the job are the most knowledgeable about the hazards they face and can articulate and develop the safest and most efficient work methods, and they are more likely to follow health and safety procedures when they have been involved in their development. If regular workers are using safe procedures, taking precautions, identifying potential hazards and attending training sessions, they will serve as role models to less experienced workers and automatically help to perpetuate health and safety awareness.

Communication Systems

Effective health and safety management systems rely on good communication—from both management and workers. Schedule regular health and safety meetings or check-ins, encourage workers to bring safety concerns to their supervisors, report on actions taken to address hazards, inform workers of planned changes that may affect health and safety, walk though the workplace together to identify to identify existing and potential hazards, etc.

It is important to be aware of, and to take into consideration, differing skills in language, literacy and culture when communicating health and safety information.

Health and Safety Orientations

At the beginning of each theatre season and/or production, companies should hold a health and safety orientation and require all personnel to attend. Distribute health and safety information and cover the following topics:

- health and safety policy
- procedures for reporting and resolving health and safety concerns
- procedures for reporting injuries and incidents
- location of first aid kits and names of trained first aiders
- emergency procedures
- location of the MSDS library
- location of personal protective equipment and other safety equipment/features
- safe work procedures/practices specific to work activities

Workers who attend/participate in health and safety orientations should sign a document acknowledging their participation.

Safety Meetings

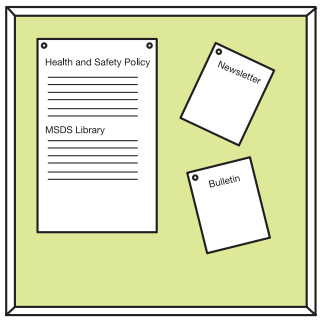
Safety meetings are scheduled meetings—often held during pre-production—in which real and potential safety issues are discussed. They can stand alone, or take place during production, staff and/or board meetings. Many design, technical or performance hazards can be forestalled as a result of careful planning.

Safety Chats

Safety chats are brief, informal meetings with the cast and crew that may be held at the start of a call, on the first day of rehearsal, on the first day onstage, the cue-to-cue day, etc. They are also held prior to rehearsing potentially hazardous sequences for the first time. Typical discussion topics include design hazards (raked stages, elevated surfaces, etc.), performance hazards (firearms, stage combat, special effects, etc.), reminders of emergency procedures, etc.

Joint Health and Safety Committees (JHSC)

Joint Health and Safety Committees are made up of equal parts management and worker representation. Members work together to identify and solve health and safety concerns, and generally promote health and safety awareness and interest within an organization. In Alberta, the establishment of a committee is voluntary; however, theatres that have a JHSC typically find them to be an essential and effective part of their heath and safety management system.



health and safety notice board

Health and Safety Notice Boards

Health and safety notice boards can be developed and displayed at your workplace in various locations to communicate information to large groups of people. Information to post may include:

- health and safety policy
- OHS legislation
- location of first aid kits, names of trained first aiders, copies of first aid certificates
- location of the MSDS library
- emergency procedures
- location of personal protective equipment and other safety equipment/features
- local and time specific health and safety newsletters, bulletins, etc.
- Workplace Health and Safety Inspection Orders, if applicable
- Joint Health and Safety Committee information (committee members and contact information, schedule of meetings, agendas and minutes, inspection reports, etc.)

note: health and safety notice boards should be reserved exclusively for health and safety information—no restaurant menus or social/personal notices

Callboards and Rehearsal Schedules

Callboards and rehearsal schedules are a great way to communicate important health and safety information to the cast and crew. Use the schedule to alert cast and crew members to potential hazards for that day's rehearsal, such as the use of smoke, fog, pyrotechnics, firearms, etc.

Worker Training

Worker training is an essential component of a health and safety management system. Workers need to know how to do their jobs safely and without risk to their health, and they must understand that the company considers health and safety to be an important part of the work process. Competent, well-trained workers not only perform their jobs safely, they are also more productive, aware and efficient.

It is not acceptable to assume workers have training, but it is possible to require them to participate in specific training at your workplace or have proof of prior training as a condition of employment. It is the employer's responsibility to ensure worker competency. To this end, it is important to maintain training records showing what training workers have received and when, and when they are due for renewals/refreshers.

Specific health and safety training for each department, worksite and procedure, based on identified hazards, should be arranged by employers at the beginning of each theatre season or prior to a worker's first day of work, with refreshers held as required. This may include:

- new worker orientation
- **equipment** training
- **WHMIS** training
- fall protection training
- respiratory protection training and fit-testing
- vehicle/forklift training
- first aid training
- emergency response/evacuation procedures
- fire extinguisher training

Employers must ensure that a worker is trained in the safe operation of any equipment they will use. This training must include:

- selection of the appropriate equipment
- limitations of the equipment
- operator's pre-use inspection
- use of the equipment
- operator skills required by the manufacturer's specifications for the equipment
- mechanical and maintenance requirements of the equipment
- loading and unloading the equipment if doing so is a job requirement
- the hazards specific to the operation of the equipment at the worksite

If a worker may be exposed to a harmful substance at a worksite, the employer must:

- establish procedures that minimize the worker's exposure to the harmful substance
- ensure that a worker who may be exposed to the harmful substance is trained in the procedures, applies the training and is informed of the health hazards associated with exposure to the harmful substance

Workers must:

- participate in the training provided by an employer
- apply the training

Reference: *OHS Regulation*, Section 15

(Theatre Company)

SUGGESTED AGENDA ITEMS FOR PERFORMER, SHOP WORKER AND STAGE CREW ORIENTATIONS

Be sure to have each worker who receives such an orientation/training sign a document acknowledging receipt.

	Orientation	Anticipated health and safety issues in this production
For Performers—Rehearsal Hall	exits emergency equipment emergency procedures first aid attendant, location, how to call	filling out individual emergency contact and medical information forms food allergies and other allergies scenic units stage floor surface fight scenes wardrobe special needs rehearsal footwear props special effects
For Shop and Production Workers—Workshop	exits emergency equipment emergency procedures first aid attendant, location, how to call personal protective equipment: shoes, hard hats, gloves, ear protection, respirators, etc. tools used materials storage and disposal housekeeping	filling out individual emergency contact and medical information forms construction materials and methods dust collection ventilation controlled substances, solvents and fumes
For Stage Crew—Venue	exits emergency equipment emergency procedures first aid attendant, location, how to call identify other contractors and workers identify supervisors personal protective equipment: shoes, hard hats, gloves, ear protection, respirators, etc. tools used	filling out individual emergency contact and medical information forms orchestra pit maintaining clear exit paths access to heights and fall protection if required rigging issues lighting special effects

(Theatre Company)

QUICK REFERENCE ORIENTATION FORM FOR WORKERS/ HEALTH AND SAFETY NOTICE BOARD

Department

Supervisor

Name of Joint Health and Safety Committee (JHSC) Members (if applicable)

Location of First Aid Kit

Names of Trained First Aiders

Locations of Nearest/Alternative Fire Exits

Locations of Nearest Fire Extinguishers

Meeting Place in Case of Emergency Evacuation

Location of Material Safety Data Sheets (MSDS) Library

Location of Eyewash Station

Location of Personal Protective Equipment

(Theatre Company)

SCRIPT FOR ACTING COMPANY HEALTH AND SAFETY ORIENTATION

Pass out Training Records to be signed.

Introduction

Here at _____ (the theatre), we have something very special to protect and as you begin _____ (the season/the production), I want to remind you about the importance of health and safety. We want to encourage a co-operative approach so that artistic choices may be realized safely and efficiently without restricting the creative process. In addition to this Health and Safety Orientation, the Technical Director conducts a hazard assessment for each production and your Stage Manager will be talking to you about safety when you move onstage.

Health and Safety Information

You have received health and safety information _____ (e.g. in your welcome package). If you'd like further information, there is a Health and Safety Notice Board located _____ (location).

Health and Safety Legislation

Under the provincial *Occupational Health and Safety Act, Regulation* and *Code*:

- You must take reasonable care to protect the health and safety of yourselves and other workers.
- _____ (the theatre) must tell you about any hazards at the workplace.
- You also have a duty to refuse work in the case of imminent danger.
  - Imminent danger means any danger that isn't normal for a job, or any dangerous conditions under which a worker wouldn't normally carry out their work.
  - If you think your work may put you or another worker in imminent danger, you must refuse to do it.

Joint Health and Safety Committee (if applicable)

_____ (the theatre) has a JHSC, an advisory body that brings together workers and management. Our JHSC meets _____ times per year.

- Information is posted on the Health and Safety Notice Boards.
- _____ (names) are worker members and _____ _____ (names) are management members.

Hazard Assessment

Theatre presents unique occupational challenges:

- It is your job to take creative risks but you need to understand when something you want to try becomes a safety risk—make sure it has been worked out before you try it.
- Many variables change at once, especially in cue-to-cue and technical rehearsals when many of the technical elements are being added or changed.
- Time pressure and finite deadlines.

Health and safety awareness must be constant and everyone must be involved in hazard assessment.

Together with our knowledge and skills, we must support and appreciate the less tangible abilities like imagination and intuition.

Beyond the *OHS Act, Regulation* and *Code* come good judgment, practical knowledge and common sense. We must not assume that hazards are other people's responsibility. We must all speak up and take action when we know or believe there are hazards in our workplace. We must also encourage others to speak up, and support them when they do.

Reporting and Resolving Health and Safety Concerns

- If you have a concern, report it to your Stage Manager who will look into it and, if necessary, take corrective action.
- If you are not satisfied with the response, you may contact a JHSC member (if applicable) and the three of you can work together to resolve the concern.
- If a resolution cannot be reached, the Imminent Danger Procedure will be followed.
- It is important for you to tell your Stage Manager of any past injuries or medical concerns that might affect your blocking.
- When you go to fittings, make sure that the designer and staff know what you need to be able to do in your costumes.
- You have lots of people who will be looking out for your well being as you put _____ (the production) together—everyone from directors, designers, fight directors, stage managers, technical directors and crew.
- However, no matter how hard everyone may try to anticipate dangerous situations, no one else can know what it feels like to you.

If you feel unsafe at any time, in any way, STOP—tell your stage manager right away:

- even if you think it will be inconvenient to sort out the problem.
- even if the rehearsal is running late and everyone is pressed for time.
- even if you are not sure there is a problem but you would feel better knowing more about the situation.

Workplace Injuries and Illnesses

You are encouraged to fill in an Emergency Contact and Medical Information form provided by _____ (the stage manager)/Canadian Actors' EquityAssociation.

- These will be kept locked in the Stage Management Office to give easier access after business hours.
- In addition, you may speak privately to each Stage Manager if you have an allergy or health concern you would like them to know about. They will not see your Emergency Information Form.

First Aid Kits are located _____ (location).

The theatre does not provide any medications so you should keep a supply of whatever you are likely to need.

Many people are trained in First Aid/CPR including several members of stage management, stagehands and wardrobe attendants.

If you are injured, tell your Stage Manager—depending on the severity, a First Aid Report, an Injury/Incident Report and/or a WCB report will be filled out.

If you are a member of Equity you are covered for workplace injury under their insurance plan. There is a separate insurance policy covering other workers. _____ _____ (name) can assist you with the form for making a claim.

Reminder (if applicable) – this is the time of year when colds and flu may be going around.

- You can get a flu shot from your family doctor if you want one.
- If you don't have a family doctor, you can get a flu shot from _____ _____ (location).
- The Centre for Disease Control says that hand washing "when done correctly is the single, most effective way to prevent the spread of disease." Soap and water are the best method, but where there isn't a sink available, hand sanitizer is a good alternative. Sanitizer will be provided in several locations in the theatre.
- Additional measures – Cough on your cuff, sneeze on your sleeve.
- If you are sick, call the stage management office to talk to them about staying home.

Emergency Procedures

In all theatres, staff and patrons will evacuate upon hearing the fire alarm bells.

You should leave the building immediately by the nearest safe exit when you hear the alarm and go to your assigned meeting place: _____ (location).

If there is a performance in progress, stage management will make announcements and stop the show.

Nuisance fire alarms disrupt performances and require evacuation of the building, which can be inconvenient and potentially costly. For this reason, please do not burn candles or incense in dressing rooms.

Emergency Procedures—Power Failure

In case of a power failure, stop where you are and do not move until lights are restored. Take direction from Stage Management.

The theatre must be evacuated after _____ (duration) without power.

Provide details regarding generators, communications systems, and emergency lighting

Visitors

If you want to visit the Scene Shop or the carpentry or welding areas of the Prop Shop, requirements for appropriate footwear, eye and hearing protection must be followed.

Regarding visits and tours of the backstage area while work is in progress:

- During presets, rehearsals and performances, visitors are not permitted in the backstage area except by permission of the Stage Manager.
- During changeovers and resets, visitors are not permitted backstage. It is very important to keep clear of the changeovers, as there is a lot of scenery, as well as dollies of props and wardrobe racks, moving at that time.
- During technical work, visitors are only permitted backstage by arrangement with the Head Carpenter.

Do not use the backstage as a shortcut.

Backstage Footwear

With the exception of costume footwear or bare feet required by actors in a specific rehearsal or performance, everyone in the backstage areas must wear leather or leather substitute shoes with closed toes at all times while work is in progress—no canvas shoes or sandals.

If you wear sandals to the theatre, keep another pair of shoes in your dressing room.

Scented Products

Some people are sensitive to scented products including perfumes and hairsprays so please be considerate and limit your use of these products at work.

If you are affected by a product someone else is using, please let them know so they may limit its use.

Health and Safety Commitment

“At the theatre, the safety of the public and of our personnel is of prime concern. There is no task so urgent that it cannot be completed safely.”

Questions?

Take care of yourselves, take care of each other, and have a great production/season.

(Theatre Company)

POLICY FOR REPORTING AND RESOLVING HEALTH AND SAFETY CONCERNS

Supervisors will encourage workers to discuss health and safety concerns with them. When a worker identifies a health or safety concern, it should be reported to the supervisor. The supervisor will respond immediately by having a discussion with the worker, attempting to resolve the concerns and, if necessary, taking corrective action. If the supervisor and the worker are unable to resolve the concern, the supervisor should refer the concern to the next level of supervision.

If no agreement is reached at this level, then the concern may either be referred to higher levels of management or a member of the Joint Health and Safety Committee (if applicable) may be contacted.

This is a guideline only. Workers may elect to exercise their right to refuse work if they feel unsafe, according to the Imminent Danger Procedure.

For the following concerns, these people should be contacted and given an opportunity to respond.

Maintenance and Housekeeping Concerns

If the supervisor cannot resolve maintenance and housekeeping concerns, the following people should be contacted, in this order.

Name(s) and Contact Information

Temperature and Ventilation Concerns

Many temperature and ventilation concerns are comfort issues and individuals respond differently. Staff should dress in layers and keep sweaters at work so they may adapt to variations in temperature. For extreme situations, the supervisor should contact the following people, in this order:

Name(s) and Contact Information

Fire Extinguishers

If you have a fire extinguisher that is due for inspection or has an obvious defect, contact:

Name(s) and Contact Information

First Aid Supplies

If you need first aid supplies between first aid kit inspections, contact:

Name(s) and Contact Information

Training

If you need to arrange training for workers (e.g. first aid, fire extinguishers, etc.), contact:

Name(s) and Contact Information

(Theatre Company)

EMERGENCY CONTACT INFORMATION & MEDICAL CONCERNS FORM

This information will be kept in a sealed envelope, labeled with your name, in the stage management office. In case of emergency, the envelope will be given to medical professionals.

Personal Contact Information

Name	**Department**		
Current Address	City/Town	Province	Postal Code
Permanent Address	City/Town	Province	Postal Code
Home Telephone			

Emergency Contact Information

1. Name	**Relationship**
Telephone	**Alternate Telephone**
2. Name	**Relationship**
Telephone	**Alternate Telephone**

Doctor Contact Information

1. Name	**Telephone**
2. Name	**Telephone**

Medical Information (food /drug allergies, medical conditions, etc.)

If you have an allergy or medical condition that you would like your manager or supervisor to know about, please speak to them privately, as they will not see this form.

PLEASE NOTE: Completing this form is voluntary. Your information will only be provided to a doctor, paramedic or hospital for the purpose of emergency treatment when you are unable to provide information due to injury or illness. By signing below, you consent to the disclosure of this information. The theatre protects the personal information it gathers. For details, refer to our Privacy Policy.

Signature

Date

Chapter Six

INJURIES AND INCIDENTS

In This Chapter

- First Aid
- Reporting and Investigating Serious Injuries and Incidents

Glossary Items

- Acute Illness or Injury
- First Aid
- First Aider
- Incident
- Near Miss

Appendix Items

- Legislated First Aid Requirements—Schedule 2 of *OHS Code*
- Injury and Illness Policy and Procedures—courtesy of Theatre Ontario's To Act In Safety **www.theatreontario.org**
- Patron Injury and Illness Report—courtesy of Theatre Ontario's To Act In Safety **www.theatreontario.org**
- Ambulance Refusal Form—courtesy of Theatre Ontario's To Act In Safety **www.theatreontario.org**
- First Aid Record—courtesy of AEII's Health and Safety Toolkit for Small Business
- Incident Investigation Guide—courtesy of AEII **www.worksafely.org**
- Incident Investigation Report—courtesy of AEII **www.worksafely.org**
- Workers' Compensation Board Worker's Report of Injury or Occupational Disease **www.wcb.ab.ca**
- Workers' Compensation Board Employer's Report of Injury or Occupational Disease **www.wcb.ab.ca**

Safe Stages is designed to assist you in preventing **injuries**, **illnesses** and **incidents** at the workplace—an essential part of this is planning and preparing for their occurrence as part of your health and safety management system. This chapter outlines first aid requirements for Alberta workplaces and procedures for reporting and investigating injuries and incidents, including **near misses.**

First Aid

General workplace **first aid** requirements are outlined in Part 11 of the *OHS Code*. Worksite specific requirements, including the required number of **first aiders**, level of first aid training and type and quantity of first aid kits, supplies and equipment, are listed in Schedule 2 of the *OHS Code* and are based on:

- how hazardous the work is
- the time taken to travel from the worksite to a health care facility (hospital)
- the number of workers on each shift

Employers and workers who are likely to encounter an emergency situation should be trained in first aid. Training for supervisors in each department—as well as all Stage Management and Front of House workers who are interested—is recommended.

The benefits of first aid training go far beyond legal compliance—workers and volunteers are usually keen to take it and it is a great method for getting people involved with a health and safety management system.

Employers are responsible for:

- providing and maintaining first aid services, supplies and equipment
- ensuring that the services, supplies and equipment are available and accessible during all working hours at the worksite they serve
- communicating information about first aid to workers
- ensuring arrangements are in place to transport injured or ill workers from the worksite to the nearest health care facility
- ensuring that first aiders are trained
- ensuring that injuries and acute illnesses are reported to the employer and recorded, and that records are kept confidential

Reference: *OHS Code*, Part 11 and Schedule 2

First aid kits must be available at all worksites and must comply with the regulations listed in the *OHS Code*. It is helpful to put a laminated inventory on the lid of each kit, along with an inspection record that is signed and dated every three months when the kits are inspected. First aid kits should be restored as supplies are used. A list of trained first aiders must also be posted in a visible area.

The administering/dispensing of any drugs, including aspirin and other headache medication, is not considered first aid. Medications and ointments must not be included in first aid kits, and stage managers should not stock such drugs in their stage management kit. Theatre companies should develop policies and procedures for assisting workers who require prescribed medications, such as epi-pens, nitro-glycerine pills, insulin, asthma inhalers, etc.

Theatre companies should also develop policies and procedures for calling ambulances and ambulance refusal. If an incident involves exposure to a chemical/hazardous substance and a worker is sent for medical care, the chemical's Material Safety Data Sheet should accompany the worker.

First Aid Records

Workers must report any acute illness or injury at the worksite to their employer as soon as possible. Employers must record, on a first aid record, every acute illness or injury that occurs at the worksite as soon as possible after it is reported to them.

First aid records must contain:

- name of worker
- name and qualifications of the person giving first aid
- description of the illness or injury
- type of first aid given to the worker
- date and time of the illness or injury
- date and time the illness or injury was reported
- where at the worksite the incident occurred
- work-related cause of the incident, if any

First aid records must be maintained for three years from the date of incident. The person assigned responsibility for custody of first aid records must ensure they are kept confidential. Access to first aid records is limited to the worker, occupational health and safety officers, Workplace Health and Safety's Director of Medical Services or a person authorized by the Director of Medical Services, except where written permission of the worker is obtained.

Reporting and Investigating Serious Injuries and Incidents

The *OHS Act* requires serious workplace injuries and incidents to be reported to the Workplace Health and Safety Contact Centre: 1-866-415-8690 or 415-8690 in Edmonton.

Employers must report to Workplace Health and Safety:

- an injury or incident that results in a death
- an injury or incident that results in a worker being admitted to a hospital for more than 2 days

(continued)

- an unplanned or uncontrolled explosion, fire or flood that causes serious injury or that has the potential of causing a serious injury
- the collapse or upset of a crane, derrick or hoist
- the collapse or failure of any component of a building or structure necessary for the structural integrity of the building or structure

Reference: *OHS Act*, Section 18

The employer responsible for the worksite is responsible for reporting the injury or incident. Report one of the above incidents immediately or at the first opportunity. Be prepared to provide information indicating the time, place and nature of the injury or incident. If you are unsure whether an injury will develop into a reportable injury, call it in.

Do not disturb the scene of an incident unless you:
- are permitted to do so by an occupational health and safety officer or a peace officer
- have to attend to someone who has been injured or killed
- have to prevent further injuries
- have to protect property that is endangered as a result of the incident

Conducting an Incident Investigation

Following a telephone call to the Workplace Health and Safety Contact Centre, the employer responsible for the worksite must prepare an Incident Investigation Report. An Incident Investigation Report explains what happened and what will be done to prevent a similar or identical incident from happening again. Witnesses and people involved in the incident may need to be interviewed, including those not present when the incident occurred. For example, it may be appropriate to interview a trainer who instructed involved workers months earlier.

The investigation must determine:
- who was involved or injured?
- where did the incident happen?
- when did the incident occur?
- what were the immediate and basic causes of the incident?
- why was the unsafe act, condition or procedure allowed?
- how can a similar incident be prevented?

Non-reportable injuries and incidents, including near misses, also need to be documented in an Incident Investigation Report, even if they are not reported to Workplace Health and Safety. Near misses should be investigated because they point to hazardous conditions or work practices that could cause an incident in the future.

Incident Investigation Reports should be kept on file for a period of two years following the injury or incident. You are not required to send copies to Workplace Health and Safety, but they must be readily available to occupational health and safety officers if and when they come to the worksite.

note: There are separate requirements for reporting injuries to the Worker's Compensation Board. These are covered under the *Worker's Compensation Act,* which is different from occupational health and safety legislation. The WCB injury report form must be completed by the employer and worker involved within 72 hours of the notification of the injury.

LEGISLATED FIRST AID REQUIREMENTS

Low hazard work includes work at administrative sites and dispersal sites (where workers report for instruction or from which workers are transported to primary worksites).

High hazard work includes:

- construction or demolition
- operation and maintenance of food packing or processing plants, beverage processing plants, electrical generation and distribution systems, foundries, industrial heavy equipment repair and service facilities, sawmills and lumber processing facilities, machine shops, metal fabrication shops, gas, oil and chemical process plants, steel and other base metal processing plants
- industrial process facilities not elsewhere specified
- woodlands operations
- gas and oil well drilling and servicing operations
- mining and quarrying operations
- seismic operations
- detonation of explosives

Medium hazard work includes anything that does not qualify as either low or high hazard.

Number of workers at work site/shift	Close work site (up to 20 minutes)	Distant work site (20 – 40 minutes)	Isolated work site (more than 40 minutes)
Low Hazard Work			
1	Type P First Aid Kit	Type P First Aid Kit	Type P First Aid Kit
2-9	No. 1 First Aid Kit	1 Emergency First Aider No. 2 First Aid Kit	1 Standard First Aider No. 2 First Aid Kit
10-49	1 Emergency First Aider No. 1 First Aid Kit	1 Emergency First Aider No. 2 First Aid Kit	1 Standard First Aider No. 2 First Aid Kit
50-99	1 Emergency First Aider 1 Standard First Aider No. 2 First Aid Kit	1 Emergency First Aider 1 Standard First Aider No. 2 First Aid Kit	2 Standard First Aiders No. 2 First Aid Kit
Medium Hazard Work			
1	Type P First Aid Kit	Type P First Aid Kit	Type P First Aid Kit
2-9	1 Emergency First Aider No. 1 First Aid Kit	1 Standard First Aider No. 2 First Aid Kit 3 blankets	1 Standard First Aider No. 2 First Aid Kit 3 blankets

Number of workers at work site/shift	Close work site (up to 20 minutes)	Distant work site (20 – 40 minutes)	Isolated work site (more than 40 minutes)
Medium Hazard Work (continued)			
10-49	1 Emergency First Aider 1 Standard First Aider No. 2 First Aid Kit	1 Emergency First Aider 1 Standard First Aider No. 2 First Aid Kit 3 blankets	2 Standard First Aiders No. 2 First Aid Kit 3 blankets
50-99	2 Emergency First Aiders 1 Standard First Aider No. 3 First Aid Kit	2 Emergency First Aiders 1 Standard First Aider No. 3 First Aid Kit 3 blankets	3 Standard First Aiders No. 3 First Aid Kit 3 blankets
High Hazard Work			
1	Type P First Aid Kit	Type P First Aid Kit	Type P First Aid Kit
2-4	1 Emergency First Aider No. 1 First Aid Kit	1 Standard First Aider No. 2 First Aid Kit	1 Standard First Aider No. 2 First Aid Kit
5-9	1 Emergency First Aider 1 Standard First Aider No. 2 First Aid Kit	2 Standard First Aiders No. 2 First Aid Kit 3 blankets	2 Standard First Aiders No. 2 First Aid Kit 3 blankets
10-19	1 Emergency First Aider 1 Standard First Aider No. 2 First Aid Kit 3 blankets	2 Standard First Aiders No. 3 First Aid Kit 3 blankets, stretcher, splints	2 Standard First Aiders No. 3 First Aid Kit 3 blankets, stretcher, splints
20-49	2 Emergency First Aiders 1 Standard First Aider No. 2 First Aid Kit 3 blankets	3 Standard First Aiders No. 3 First Aid Kit 3 blankets, stretcher, splints	3 Standard First Aiders No. 3 First Aid Kit 3 blankets, stretcher, splints
50-99	2 Emergency First Aiders 2 Standard First Aiders No. 3 First Aid Kit 3 blankets	2 Emergency First Aiders 3 Standard First Aiders No. 3 First Aid Kit 3 blankets, stretchers, splints	4 Standard First Aiders 1 Advanced First Aider No. 3 First Aid Kit 3 blankets, stretcher, splints

For work sites with 100 or more workers, refer to Part 11 and Schedule 2 of the *OHS Code*.

For information regarding the contents of Number 1, Number 2, Number 3 and Type P First Aid kits see *OHS Code*, Schedule 2, Table 3—First aid equipment and supplies.

(Theatre Company)

INJURY AND ILLNESS POLICY AND PROCEDURES

Passed by Board of Directors on _____ (date).

Policy Statement

When a worker or patron experiences an injury or illness on theatre property, emergency assistance will be provided promptly by qualified staff/volunteers, including Front of House Managers and other designated supervisors. This assistance will range from the provision of first aid to contacting 911 to arranging for assistance and ambulance service. The theatre requires that all worker and patron injuries or illnesses, however minor, be reported to a supervisor and that an Injury/Illness Report form be completed.

All workers and volunteers will be trained, during their orientation, in the appropriate steps to be followed in the event of an emergency. They will also receive a copy of this Policy & Procedures document.

At every performance and special event hosted by the theatre, a House Manager or other designated supervisor with first aid training will be on site.

Front of House will maintain a first aid kit for its specific use. First aid kits may not contain medications such as Tylenol, aspirin, allergy medications, etc. and theatre representatives are prohibited from making such medications available to workers or patrons.

Procedures

Training

All supervisors will be trained, during their orientation, in the appropriate steps to be followed in the event of an emergency and will have current First Aid and CPR certification.

Assistance

Designated staff and/or volunteers with first aid training will normally attend to minor complaints without seeking outside medical assistance. These treatments will include things such as: cuts, scrapes, minor bleeding and feeling faint due to heat. In the case of more serious injuries, designated first aiders will, if requested by the worker or patron or if the situation warrants it, call 911 to request an ambulance, or will advise the worker or patron to seek medical attention themselves immediately.

If a patron elects not to seek medical attention, the following precautions are to be taken:

- If the patron returns to the theatre auditorium, a designated usher will observe the patron during the performance to ensure that the situation does not escalate.
- If the patron decides to rest in the lobby or another designated space, they should be offered the option of having an usher sit with them until they are ready to return to the performance in progress. If they decline the offer, they should be permitted to rest undisturbed, but observation should be continued.

It is imperative that House Management staff/volunteers endeavor to make the patron most comfortable and provide superior customer service in all situations.

Incidents

In the event of any incident involving injury or potential injury, designated supervisors are required to complete an Injury/Illness Report at the time of occurrence. The report must contain the following information:

- Name and address of the worker or patron involved.
- Location of incident, nature of injury, exact details as related by the worker or patron.
- Observations of the conditions, time of incident, weather conditions (if a factor) and assistance given to the worker or patron.
- Name(s) of witness(es).
- Name of first aid provider and first aid treatment or advice provided.

Reporting System

The theatre requires that all injuries or illnesses, however minor, be reported to a supervisor and an Injury/Illness Report form be completed. The original report shall be filed in a pre-determined location and a copy forwarded to the designated theatre worker who oversees health and safety for the company.

Supervisor Responsibilities

- Ensure first aid is given immediately by a trained First Aider.
- If the injured or ill person needs health care (more than first aid treatment/advice), advise them to seek medical assistance or arrange immediate transportation to a hospital by calling an ambulance. When any doubt exists, call an ambulance.
- If the injured or ill person refuses to have an ambulance called, against the advice of the supervisor, ensure that the Ambulance Refusal Form is completed and signed.
- Ensure that an Injury/Illness Report is completed including first aid treatment/advice given to the injured or ill person. The original shall be filed in a pre-determined location and a copy forwarded to designated theatre worker who oversees health and safety for the company.

(Theatre Company)

PATRON INJURY/ILLNESS REPORT

Patron's Contact Information

Name

Home/Permanent Address

City/Town Province Postal Code

Home Telephone

Alternate Telephone

Details of Injury/Illness

Theatre

Show/Event

Exact location of injury/illness

Date and time of injury/illness

Date and time injury/illness reported

Who was the injury/illness reported to?

What happened?
If there was an injury, indicate the part of the body involved and specify left or right side.
Please note any comments made by the injured person or witness.

Contributing factors
(for example, clothing, weather conditions, patron's age/health, etc.)

Is there anyone else who may have witnessed or who may know about the injury?
If so, provide details below. Name(s), Address(es) and Phone Number(s) if available.

Action Taken

First Aid treatment or advice

First Aid provided by

Assistance by doctor or other patron?	☐ **Yes** ☐ **No**	Name, if known:
Patron went to hospital on his/her own?	☐ **Yes** ☐ **No**	
Ambulance requested by patron?	☐ **Yes** ☐ **No**	
Ambulance suggested by First Aider?	☐ **Yes** ☐ **No**	
Ambulance called?	☐ **Yes** ☐ **No**	Time called: Time arrived:
Ambulance refused by Patron?	☐ **Yes** ☐ **No**	If yes, complete **Ambulance Refusal Form.**
Apparent condition of Patron upon leaving First Aid care/theatre		
Patron kept under surveillance during performance?	☐ **Yes** ☐ **No**	Details:

Injury/Illness Investigation

What actions contributed to the injury/illness?

Follow-up with Patron?	☐ **Yes** ☐ **No**	If yes, explain:

Describe actions to prevent recurrence
(actions taken and actions planned but not yet carried out)

Signature of Theatre Representative

Date of Report

_____

(Theatre Company)

AMBULANCE REFUSAL FORM

I, _____ understand that an ambulance with trained medical personnel has been suggested for me as a result of my _____ _____, as a precautionary measure. I have refused the suggested ambulance and release _____ from any further liability as a result of my refusal to seek medical attention.

_____ _____

Signature Date

_____ _____

Supervisor/Manager Signature Date

_____ _____

Witness Signature (over 18 years of age) Date

To be signed in the event the person refuses to sign the disclaimer.

The person listed above has refused to sign the above statement and has also refused our suggestion regarding calling an ambulance. This refusal has been witnessed by the following three individuals:

_____ _____

Supervisor/Manager Signature Date

_____ _____

Second Witness Signature (over 18 years of age) Date

_____ _____

Third Witness Signature (over 18 years of age) Date

(Theatre Company)

FIRST AID RECORD

Date and time of injury or illness	day/month/year	01/June/2006, 10:00 am
Date and time injury or illness reported to First Aider	day/month/year	01/June/2006, 10:02 am
Full name of injured or ill worker	Jane Doe	
Description of the injury or illness	Worker cut left thumb while sculpting a prop statue.	
Description of where the injury or illness occurred/began	Incident occurred in the Prop Shop.	
Cause of the injury or illness	Worker was distracted by a co-worker; knife slipped and cut worker's thumb.	
First aid provided?	☐ **No** ☑ **Yes** If yes, complete rest of page	
Name of First Aider	Bill Jones	
First Aid Qualifications	☐ **Emergency First Aider**	☐ **Emergency Medical Technician—Paramedic**
	☑ **Standard First Aider**	☐ **Emergency Medical Technician—Ambulance**
	☐ **Advanced First Aider**	☐ **Emergency Medical Technician**
	☐ **Registered Nurse**	☐ **Emergency Medical Responder**
First Aid Provided	Cut cleaned with water and gauze dressing applied. Worker returned to work.	

This form, when completed, should be given to Margaret Smith.

CONFIDENTIAL

Keep this record for at least 3 years from the date of injury or illness.

INCIDENT INVESTIGATION GUIDE
How to Complete the Attached Incident Investigation Report

1) Employer

Provide the information requested.

2) Prime Contractor

Provide the information requested.

The prime contractor is the contractor, employer or other person who enters into an agreement with the owner of the work site to be the prime contractor. If there is no agreement or the agreement isn't being followed, then the owner of the work site is the prime contractor. A prime contractor is required whenever two or more employers are working at the work site at the same time.

3) Injured Worker(s)

Provide the information requested. Repeat for each worker injured in the incident.

4) Investigating Police

If the incident was investigated by the police, the report should contain the name of the officer, police force, and detachment.

5) Joint Work Site Health and Safety Committee

Is the work site covered by a Joint Work Site Health and Safety Committee (JWHSC)?

Has the JWHSC been involved in the investigation? If so, include a copy of its report as an appendix.

6) First Aid

If first aid was given, indicate who provided the service and what was done.

7) Witness Statements

Statements should be obtained from witnesses where possible and should include the following:

- full name
- address
- telephone number
- date of birth
- position
- occupation
- experience
- employer's name and address
- duties at time of incident

The statement should be in the witness's own words and signed by the witness. Witness statement pages are provided in the report.

8) Report by Others

List relevant reports such as laboratory or engineering reports that were used as sources of information. Attach pertinent sections of the reports as an appendix.

9) Health and Safety Program

Is there a health and safety program at the work site?

Are procedures and precautionary measures identified in the program that would have prevented the incident?

If procedures are available, are the procedures adequate?

10) Circumstances

Accurately describe, in chronological order, the relevant events leading to the incident. Do this in such a way that the reader can form an accurate mental picture of the situation with minimum confusion. Visual observations should be verified by photographs taken to show the witness's view of the incident.

11) Causes of the Incident

Identify and explain both immediate and underlying causes of the incident. List the causes in order of the degree to which they contributed to the incident and its outcome. Question why the events occurred as they did and why certain conditions existed at that time.

Was the worker properly trained and supervised?

Was the worker provided with and trained in the use of necessary personal protective equipment?

What had been done to eliminate or reduce the hazardous conditions which may have existed at the time of the incident?

Were safe work procedures being followed (written or verbal)?

Such deficiencies must be identified for corrective actions.

12) Preventive Measures and Follow-Up Actions

Indicate the preventive measures and actions that have already been taken and when. Describe the preventive measures and actions, in order of priority, that must be taken now. Indicate who is responsible for seeing them completed and by when. This includes such actions as additional safety meetings with employees, review of safe work procedures, implementing new procedures, engineering controls, etc. Prevention of future injuries or incidents is one of the key reasons for performing an incident investigation.

INCIDENT INVESTIGATION REPORT

1) Employer

Employer

Address
City/Town Province Postal Code

Telephone

Date & Time of Incident

Incident Site

Specific Location

Supervisor

2) Prime Contractor (if applicable)

Prime Contractor

Address
City/Town Province Postal Code

Telephone

Supervisor

3) Injured Worker

Name

Address
City/Town Province Postal Code

Telephone

Date of Birth

Hospital

Attending Doctor

Nature of Injury
(brief description of injury sustained)

3) Injured Worker - Continued

Severity
(fatal, permanent disability, medical aid, lost time, etc.)

Occupation

Experience with employer

Total relevant experience

Next of Kin (only if FATALITY)

Name

Relationship

Address
City/Town Province Postal Code

Telephone

4) Investigating Police

Name of Officer

Police Force

Detachment

5) Joint Work Site Health and Safety Committee

6) First Aid

Was first aid provided?	☐ **Yes** ☐ **No**	If yes, complete below.

Name of First Aider

First Aid Provided

7) Statement of Witnesses

Were witness statements taken?	☐ **Yes** ☐ **No**	(If yes, list the names of witnesses below and attach witness statement pages to this report.)

Name

Name

Name

8) Reports by Others

Are reports by others attached to this incident report?	☐ **Yes** ☐ **No**	(If yes, list reports below.)

Report

Report

Report

9) Health and Safety Program

(attach additional pages if required)

10) Circumstances

(attach additional pages if required)

11) Causes of the Incident

(attach additional pages if required)

12) Preventive Measures and Follow-Up Actions

(attach additional pages if required)

Report by

Position

Employed by

Date

Supervisor/Manager/Director

Witness Statement

Statement Of

Address

City/Town Province Postal Code

Telephone

Date of Birth

Occupation

Position

Employer

Address

City/Town Province Postal Code

Relevant Experience with this Employer

Duties at Time of Incident

Statement

Signature

Date

Workers' Compensation Board
Alberta

P.O. BOX 2415
EDMONTON AB
T5J 2S5

Phone **780-498-3999** (in Edmonton)
1-866-WCB-WCB1 (922-9221) (toll free in Alberta)
Fax **(780) 427-5863** or **1-800-661-1993**

WORKER'S REPORT
of Injury or Occupational Disease

Claim Number

Worker Information

Will you be off work past the day of injury? ☐ Yes ☐ No | **Modified duties?** ☐ Yes ☐ No

Last Name | First Name | Initial

Apt# Address | Social Insurance #

City | Province | Prov. Health Care # - | Prov.

Postal Code | Home Telephone | Date of Birth *(Year / Month / Day)* | Sex: ☐ M ☐ F

Occupation and Job Title at time of injury | Self employed? ☐ Yes ☐ No

If yes, account #

Employer Information

Employer Name or Government Dept.

Address | Fax

City | Province | Postal Code | Telephone

Injury or Occupational Disease Information

1. Date and time of injury *(Year / Month / Day)* | Time ☐ am ☐ pm **OR** Did this condition develop over a period of time? ☐

Hours of employment on the day of accident: From | To

2. When did you report the injury to your employer? *(Year / Month / Day)* | Supervisor's Name

3. To whom did you report the injury? Name | Title | Telephone

If not reported immediately, give the reason.

4. Did the injury occur on your employer's premises? ☐ Yes ☐ No | Did the injury occur in Alberta? ☐ Yes ☐ No

Location where accident happened (address or general location.)

5. Was the work you were doing for the purpose of your employer's business? ☐ Yes ☐ No | If yes, was it part of your usual work? ☐ Yes ☐ No

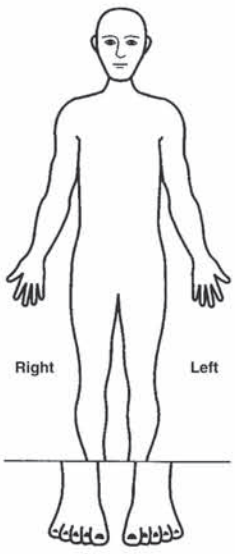
6. What part of your body was injured? (hand, eye, back, lungs, etc.) ☐ Left side ☐ Right side

7. What type of injury is this? (sprain, strain, bruise, etc.)

8. Describe fully what happened to cause this injury or disease. Describe what you were doing and include any tools, equipment, materials, etc. you were using. State any gas, chemicals or extreme temperatures you have been exposed to.

If you have any other information or a list of witnesses, attach a letter. Letter attached? ☐ Yes
Add separate page for more description.

Circle part injured:
Please check: ☐ Front ☐ Back



9. Have you had a similar injury before? ☐ Yes ☐ No **If yes, attach a letter with details.**

10. Have you reported or claimed this injury to another WCB? ☐ Yes ☐ No If yes, which Province or Territory?

Name and address of treating Dr./Hospital

If your injury is the result of a motor vehicle accident complete the Motor Vehicle Accident Report (L-054).

Complete all three pages and sign the form before sending.

C 0 6 0 REV JAN 2005

Your Last Name	First Name	Initial
Social Insurance #	Date of Birth (Year / Month / Day)	

Lost Time / Return to Work Information

11 a. Date and time you first missed work (Year / Month / Day) Hour ☐ am ☐ pm

b. If you have returned to work, indicate the date (Year / Month / Day) and time ☐ am ☐ pm ☐ regular work or ☐ modified work

c. If you have not returned to work give the expected return to work date (Year / Month / Day) **d.** Date you were hired (Year / Month / Day)

e. Is there any other work you can do until you are medically fit to return to your regular job? ☐ Yes ☐ No

Who can we call? Telephone

f. Will your employer pay you for the time you missed work? ☐ Yes ☐ No Provide the exact gross amount $ per

Type of Employment

FILL IN **A** OR **B** OR **C** Telephone

12 A ☐ Permanent full time ☐ Permanent part time

B ☐ Seasonal work ☐ Summer student ☐ Irregular / casual ☐ Temporary

Had this injury not happened, what would have been your last day of employment? ☐ Estimated or ☐ Actual (Year / Month / Day)

With this employer how many months per year would this job last?

Did you have any other earnings or income from any other employers during the last 12 months? ☐ Yes • Please attach copies of pay stubs and/or T4 slips

C ☐ Sub Contractor ☐ Piece work ☐ Vehicle Owner/Operator ☐ Welder Owner/Operator ☐ Apprentice

☐ Other or Self Employment – Explain

Note: If you checked any box in 12C, please submit a detailed income and expense statement for the year prior to your date of accident.

Wage Information

13 a. Your rate of pay $ ☐ hourly ☐ weekly ☐ bi-weekly ☐ monthly ☐ other

b. Additional taxable benefits

Vacation / Stat holiday Pay	☐ %	→	☐ Taken as time off with pay	☐ Paid on regular basis				
Shift Premium #1	☐ Amount	→	Paid per					
Shift Premium #2	☐ Amount	→	Paid per					
Regular Overtime	☐ Rate	→	Number of hours	per	☐ week	☐ month	☐ shift cycle	
Other	☐ Explain	→	Amount	per	☐ week	☐ month	☐ shift cycle	

c. Do you have a second job? ☐ Yes ☐ No If yes – Employer's Name Telephone
(Second employer may be contacted.)

d. Did you miss time from this job? ☐ Yes ☐ No If yes, please provide earning information and time missed details:

Hours of Work

14 a. Number of hours per ☐ day ☐ week ☐ shift cycle ☐ other

b. Does the work schedule repeat? ☐ Yes → Mark hours worked for one complete work schedule (use zero for days off)

☐ No → Report average hours worked per week

	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Hrs per day							
Hrs per day							
Hrs per day							

IMPORTANT
Circle day of injury.
See instructions

c. Date shift cycle commenced (Year / Month / Day)

OR if your schedule is more than 21 days, attach a copy of the schedule. ***Circle the day the injury occurred on this schedule.***

Your Last Name	First Name	Initial
Social Insurance #	Date of Birth *(Year / Month / Day)*	

Declaration and Consent

I declare that the information in my 'Worker's Report of Injury or Occupational Disease' to the Workers' Compensation Board (WCB) is true and correct. I understand that:

- If I am collecting any benefits, it is my obligation to inform the WCB immediately if I return to work of any kind, become capable of working or if there is any other change in my employment status. Work includes but is not limited to any activity in which labour or services are provided, whether or not payment of any kind is received.
- Criminal prosecution may result from any attempt on my part to collect benefits by providing false information, failing to provide information regarding my ability to work, or other fraudulent means.
- My employer may request a review or appeal of any decisions made on my claim and may therefore examine my claim file. My claim file may also be examined by anyone with a direct interest, as determined by the WCB, or a person or company I have authorized to review my claim file. (To provide authorization, use the 'Worker's Information Release' form in this booklet).
- My social insurance number may be used for reporting to Canada Customs and Revenue Agency.

I consent to WCB collecting any information that it considers relevant to determine benefit entitlement, including information pre-dating my accident, from any source including physicians, other health care providers, employer(s) and vocational rehabilitation service providers. This information is collected to determine my entitlement to compensation under the *Workers' Compensation Act*.

(Year / Month / Day)

Date _____ Name (please print) _____

Signature _____

Signing the above consent enables the Workers' Compensation Board to process your claim.

NOTE: The information required in the Worker's Report is collected under the authority of sections 32 and 36 of the *Workers' Compensation Act* for the purpose of determining entitlement to compensation and for determining employers' premium rates. Questions can be directed to the Customer Contact Centre as noted on the front of this form and on the back of the Worker Handbook. The information provided to the Workers' Compensation Board is protected by the provisions of the *Freedom of Information and Protection of Privacy Act*.

Workers' Compensation Board
Alberta

P.O. BOX 2415
EDMONTON AB
T5J 2S5

Fax: (780) 427-5863
1-800-661-1993

EMPLOYER'S REPORT
Of Injury or Occupational Disease

Claim Number:

Worker Information

☐ **Lost Time** ☐ **No Lost Time** ☐ **Modified Duties**

Last Name:	First Name:	Initial:
Address:	Social Insurance #:	
City: Province:	Prov. Health Care #: -	Prov.
Postal Code: Home Telephone:	Date of Birth: Y M D	Sex: ☐ M ☐ F
Occupation:		

Employer Information

Employer Name or Government Dept.:	Employer Account Number:
	Industry:
Address:	Does injured worker have personal coverage? ☐ Yes ☐ No
City:	Is injured worker a partner or director in this business? ☐ Yes ☐ No
Province: Postal Code:	Employer / Supervisor Contact Name:
Telephone: Fax:	Telephone:

Injury or Occupational Disease Information

1. Date and time of injury: Y M D Time: ☐ am ☐ pm ***OR*** Did this condition develop over a period of time? ☐
   Hours of employment on the day of accident: From To
2. When was injury reported to the employer? Y M D
3. Did injury occur on employer's premises? ☐ Yes ☐ No Location where accident happened (address or general location):
   Did injury occur in Alberta? ☐ Yes ☐ No
4. Describe fully, based on the information you have, what happened to cause this injury or disease. Please describe what the worker was doing, including details about any tools, equipment, materials, etc. the worker was using. State any gas, chemicals or extreme temperatures worker may have been exposed to.
5. What part of body injured? (hand, eye, back, lungs, etc.) ☐ Left side ☐ Right side
6. What type of injury is this? (sprain, strain, bruise, etc.)
7. Were the worker's actions at the time of injury for the purpose of your business? ☐ Yes ☐ No
8. Were the actions part of the worker's regular duties? ☐ Yes ☐ No
9. ☐ **NO LOST TIME** ☐ **MODIFIED DUTIES** → **SIGN FIRST PAGE AND SEND TO THE WCB**
   ☐ **LOST TIME** ☐ **MODIFIED DUTIES** → **COMPLETE SECOND PAGE**

Employer's Signature: Date:

If you have any other information that would help us make a decision, or if you have concerns, please attach a letter.
☐ Please check this box if letter is attached.

(Registry Stamp)

THIS DOCUMENT MAY BE EXAMINED BY ANY PERSON WITH A DIRECT INTEREST IN A CLAIM THAT IS UNDER REVIEW OR APPEAL

C-040 REV DEC 2006

Last Name: First Name: Initial:

Social Insurance #: Date of Birth: Y M D

Lost Time/Return to Work Information

10 a. Date and time worker first missed work: Y M D Hour: ☐ am ☐ pm

b. If worker has returned to work indicate date: Y M D and time: ☐ am ☐ pm ☐ regular work, *or* ☐ modified work

c. Do you have modified duties worker can do until they are able to return to their regular job? ☐ Yes ☐ No

d. Will you continue the worker on pay during the period of disability? ☐ Yes ☐ No Net amount $

e. Date worker was hired? Y M D

Type of Employment

FILL IN **A** OR **B** OR **C**

11 **A** ☐ Permanent full time ☐ Permanent part time

B ☐ Seasonal work ☐ Summer student ☐ Irregular / casual ☐ Temporary

Had this injury not happened, what would have been your worker's last day of employment: ☐ Estimated, *or* ☐ Actual Y M D

How many months or days per year do you employ people in this position?

C ☐ Subcontractor ☐ Piecework ☐ Vehicle Owner / Operator ☐ Welder Owner / Operator ☐ Apprentice

☐ Other or Self Employment - Explain:

Note: **Please also ask your employee to submit a detailed income and expense statement if you check any box in 11 C.**

Wage Information

12 a. Worker's rate of pay: $ ☐ hourly ☐ weekly ☐ bi-weekly ☐ monthly ☐ other:

b. Additional taxable benefits:

Vacation / Stat holiday Pay	☐ %:	→	☐ Taken as time off with pay	☐ Paid on regular basis			
Shift Premium # 1	☐ Amount:	→	Paid per:				
Shift Premium # 2	☐ Amount:	→	Paid per:				
Regular Overtime	☐ Rate:	→	Number of hours:	per	☐ week	☐ month	☐ shift cycle
Other	☐ Explain:	→	Amount:	per	☐ week	☐ month	☐ shift cycle

Note: **Only complete Question 13 if you are unable to complete Question 12. (Usually applies to seasonal or irregular/casual workers.)**

13 a. Gross earnings for the period of one year or less: $ from: Y M D (12 months or less prior) to: Y M D (date before injury)

b. Was any time missed from work **without pay** during the above period? (eg. maternity, sick, work shutdown, WCB benefits, etc. - not vacation) ☐ Yes ☐ No

If yes, number of days: Reason:

Hours of Work

14 a. Number of hours: per ☐ day ☐ week ☐ shift cycle ☐ other:

b. Does work schedule repeat? ☐ Yes → Mark hours worked for one complete work schedule (use zero for days off):

☐ No → Report average hours worked per week:

	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Hours per day:							
Hours per day:							
Hours per day:							

IMPORTANT: Circle day of injury. See instructions

c. Date shift cycle commenced: Y M D

OR If your schedule is more than 21 days, attach a copy of schedule. ***Circle the day the injury occurred on this schedule.***

Earnings Information Contact (please print): Telephone Number:

Chapter Seven

EMERGENCY RESPONSE PLANNING

In This Chapter

- Emergency Evacuation Planning
- Fire Extinguishers

Glossary Items

- Emergency

Appendix Items

- Emergency Response Plan—
  courtesy of AEII's Health and Safety Toolkit for Small Business
- Emergency Procedures—
  courtesy of Theatre Ontario's To Act in Safety
  www.theatreontario.org

Planning and preparing in advance for **emergencies** is important. Emergency response plans protect the health, safety and lives of people at your worksite, as well as minimize business losses related to damage to property and the environment.

There are many types of emergencies, such as:

- fires, spills, power outages
- critical injuries and medical emergencies
- explosions
- collisions
- violence, bomb threats
- natural disasters such as storms, tornados and floods

Other emergencies may be identified during worksite hazard assessments.

Employers must establish a written emergency response plan in case of an emergency that may require rescue or evacuation. Workers who may be affected must be consulted in its development.

An emergency response plan must include:

- the identification of potential emergencies (based on hazard assessments)
- procedures for dealing with the identified emergencies
- the identification of, location of and operational procedures for emergency equipment
- the emergency response training requirements
- the location and use of emergency facilities
- the fire protection requirements
- the alarm and emergency communication requirements
- the first aid services required
- procedures for rescue and evacuation
- the designated rescue and evacuation workers

Additionally, an employer must:

- designate the workers who will provide rescue services and supervise evacuation procedures in an emergency
- ensure that designated workers are trained in appropriate emergency response procedures, including regular exercises and drills

Reference: *OHS Code*, Part 7

Theatre companies need detailed emergency response plans to ensure that all workers and patrons are safely and efficiently evacuated from a facility in the event of a fire or other emergency. All workers must know their roles and responsibilities in the event of such an emergency/evacuation. The plan should apply to all phases of a production, including performance. Annual improvements to and testing of the plan can and should be coordinated in partnership with the local fire department.

Training and orientation in the emergency response plan should be provided to all workers, even if they are only working in the facility for a short number of hours.

All venues should have an "Emergency Contact List" posted throughout the facility that lists the local emergency service providers (911 or equivalent), workplace first aiders, employer and supervisor emergency contact information, etc.

Emergency Evacuation Planning

Strategies for evacuating theatres in an orderly and controlled fashion include:

1. Ensuring your theatre has an operating fire alarm system that all workers understand.

2. Identifying the following information:
   - your theatre's fire protection systems (e.g. automatic sprinkler systems and fire curtains)
   - location of fire extinguishers and the workers trained/designated to use them
   - location of fire/emergency exits throughout the theatre facility (evacuation routes must lead directly to the exterior of the facility and remain unobstructed)
   - emergency lighting or location of flashlights (should a power failure occur)
   - emergency power system (generator/battery system)
   - meeting area for all evacuees

3. Supplementing the fire alarm with trained workers ready to act upon the theatre's emergency procedures.

4. Ensuring workers understand and carry out assigned responsibilities if an emergency occurs during rehearsal or performance. Assign tasks such as:
   - restoring the house lights and onstage work lights
   - silencing running sound cues
   - ensuring the fire curtain can safely operate
   - securing any flown or otherwise unsafe scenery
   - doing a head count at the meeting place of all workers to ensure all have safely evacuated
   - determining and announcing when it is safe to return to the building

5. Providing targeted and timely evacuation instructions to patrons through a pre-recorded voice communication, public address or microphone system (assuming the power is working).

6. Planning for assistance for the very young, elderly and people with disabilities.

Fire Extinguishers

Fire departments as well as some fire extinguisher manufacturers can provide fire extinguisher training to workers. Only workers trained in the proper use of fire extinguishers should ever attempt to fight a fire. Training should involve both instruction and hands-on practice, culminating in putting out an actual (controlled) fire with a fire extinguisher.

Training is recommended for front of house workers, stage management, technical directors, scenic and stage carpenters, props and wardrobe workers and all technicians.

There are different types of fire extinguishers for different types of fires. Multipurpose dry chemical ABC extinguishers will suffice for most theatres; however, it is recommended that theatre companies consult with the local fire department to ensure fire protection and prevention requirements are met.

Fire extinguishers should be located throughout the theatre facility, close to potential fire hazards and where they can easily be reached while a fire is still small, but not where they could be a hazard to workers or where they could get damaged.

Fire extinguishers must be inspected according to manufacturer's specifications.

(Theatre Company)

EMERGENCY RESPONSE PLAN

Potential Emergencies (based on hazard assessment)	The following are identified potential emergencies: Fire	
Emergency Procedures	In the event of a fire occurring within or affecting the work site, the office manager makes the following decisions and ensures the appropriate key steps are taken: Advise all personnel. Shout "Fire. Fire." Pull the fire alarm to alert the nearest fire station and initiate the fire alarm within the building. Evacuate all persons to a safe point and account for everyone including visitors and clients.	
Location of Emergency Equipment	Emergency equipment is located at: Fire Alarm – at the reception desk – by stage door Fire Extinguisher – in the production hallway Fire Hose – in the production hallway next to the fire extinguisher Panic Alarm Button – at the main reception desk under the computer	
Workers Trained in the Use of Emergency Equipment	Sun Shine – Fire Extinguisher Jane Doe – Fire Extinguisher	
Emergency Response Training Requirements	**Type of Training**	Use of fire extinguishers
	Frequency	Orientation and annually
Location and Use of Emergency Facilities	The nearest emergency services are located: – Fire station: 10 Fir Street – 2 blocks east – Ambulance: 40 Sun Street – 10 blocks south – Police: 1 Police Plaza – 20 blocks west – Hospital: 101 Hospital Avenue – 4 blocks east Other:	
Fire Protection Requirements	Sprinkler systems are located in all rooms of the work site.	
Alarm and Emergency Communication Requirements	Pulling the fire alarm will automatically alert the fire department and initiate an alarm within the building. The fire alarm signal is intermittent sharp beeps.	

First Aid	First Aid supplies are located at: – Type No. 1 First Aid Kit at the main reception desk. – Type No. 1 First Aid Kit in the production office. – Blankets in the production office. First Aiders are: Jane First Aider – Reception Day shift (9am – 5pm) James First Aider – Head Carpenter (9am – 5pm) Transportation for ill or injured workers is by ambulance. Call 911.
Procedures for Evacuation and Rescue	Evacuate and direct all persons to the safe designated gathering point in the staff parking lot and account for everyone including visitors and clients. Assist ill or injured workers to evacuate the building. Provide first aid to injured workers if required. Call 911 to arrange for transportation of ill or injured workers to the nearest health care facility if required.
Designated Rescue and Evacuation Workers	The following workers are trained in rescue and evacuation: Joe Smith – Sales John James – Maintenance

Signature (General Manager, Production Manager, etc.)

Date

(Theatre Company)

EMERGENCY PROCEDURES

If You Discover a Fire:

Sound the fire alarm by activating the nearest pull station, if safe to do so.

Carry out pre-planned assignments, if applicable.

Leave your work area immediately and evacuate the building quickly by the nearest safe exit. Close all doors and windows behind you.

caution: If you are working on a process that may cause further complications if left unattended, it should be secured before you leave, provided you will not endanger your own safety.

Use exit stairwells to evacuate the building. Do not use elevators.

If closed doors are encountered on the way to an exit:

- feel the doorknob for heat before opening.
- if not hot, brace yourself against door and open slightly to check for heat and/or smoke. Do not look directly through the opening or place your face where heat or flames could reach it.
- if you feel air pressure or hot draft, close the door quickly and proceed to an alternative exit.

If you encounter smoke in the stairway, use an alternative exit.

Go to your designated meeting place and gather with others from your department for an attendance check and further instructions.

Supervisors are to:

- perform an attendance check.
- inform the Fire Department if anyone is thought to be missing.

Do not return to the building until the alarm has been investigated by the Fire Department and clearance has been given to return.

RESPONSIBILITIES FOR FIRE/FIRE ALARMS DURING PERFORMANCE

Stage Manager

Upon Hearing the Fire Alarm Bells:

- Announce on headset that the performance is being stopped: all cues shall be stopped and work and house lights shall be brought to full.
- Tell the Assistant Stage Manager to direct the actors offstage and make the evacuation announcement to the audience.
- Page the announcement to the crew: "Ladies and Gentlemen, crew to backstage." (repeat)
- Contact the House Manager on headset.
- Tell everyone on headset to begin the Evacuation Procedure.
- Page the evacuation announcement to the company: "Ladies and Gentlemen, please evacuate the building. Remain calm and assist anyone who needs help. Do not use the elevator. After you exit, go to the meeting place." (repeat)
- Take Emergency Binder with these Emergency Procedures.
- Exit the building through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- With the ASM, conduct a head count of the Acting Company and Stage Management using lists provided by the Assistant Stage Manager.
- Receive head counts from the Head Carpenter, Wardrobe Master, Wigs & Makeup and Children's Supervisor.
- Report any missing personnel to the Fire Department.

Following the Evacuation:

- Meet the House Manager and Head Carpenter at _____ (location) to discuss resuming or canceling the performance.
- Be available to provide information to the Fire Department if requested.
- Contact the Technical Director.
- Ensure the Senior Managers have been contacted. If needed, the Emergency Contact List is available from _____ (location) .
- Make an announcement to the acting company and staff at _____ (location) regarding clearance to return to the building, and resuming or canceling the performance.

Assistant Stage Manager

Upon Hearing the Fire Alarm Bells:

- Ensure that program sound is left on so that the Lobby Usher will hear the announcements.

- Take a pen, the daily schedule and the Emergency Binder (containing the Emergency Contact List, safety vest, company phone list, scene breakdown and show programme).
- Take the announcement cards from _____ (location) and go on stage wearing a headset.
- Direct the actors off stage.
- Standing center stage, make the evacuation announcement to the audience: **"Ladies and Gentlemen, please evacuate the building. Ushers will direct you to safe exits. Please remain calm and assist anyone who needs help."** (repeat)
- If safe to do so, stay onstage as the audience evacuates.
- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Put on the safety vest for increased visibility.
- Assist the Stage Manager with the head count.

Head Stage Carpenter

Upon Hearing the Fire Alarm Bells:

- Bring up onstage work lights.
- Open all backstage masking curtains.
- Ensure that exits are clear of any scenery that may interfere with the safe evacuation of the building. Remove scenery, furniture and props from underneath the fire curtain.
- Secure any scenery in an unsafe condition.
- If any exits are known to be unsafe due to fire or smoke, direct people to alternative exits.
- Supervise the evacuation of the company and ensure the backstage is clear.
- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Conduct a head count of Stage Crew and report in with the Stage Manager.
- Be available to provide information to the Fire Department if requested.

Following the Evacuation:

- Meet the Stage Manager at _____ (location) to discuss resuming or canceling the performance.
- Be available to provide information to the Fire Department if requested.
- Contact the Technical Director.
- Ensure the Senior Managers have been contacted. If needed, the Emergency Contact List is available from _____ (location).
- Make an announcement to the production crew at _____ (location) regarding clearance to return to the building, and resuming or canceling the performance.

Head of Electrics

Upon Hearing Fire Alarm Bells:

- Bring up house lights.
- Turn off stage lights.
- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Report in with the Head Carpenter.

Head of Sound

Upon Hearing the Fire Alarm Bells:

- Stop any sound cues that are running.
- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Report in with the Head Carpenter.

Property Master/Stage Crew

Upon Hearing the Fire Alarm Bells:

- Ensure that exits are clear of any scenery that may interfere with the safe evacuation of the building.
- Secure any scenery in an unsafe condition and await further instruction.
- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Report in with the Head Carpenter.

Acting Company

Upon Hearing the Fire Alarm Bells:

- Stop the performance.
- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Report in with the Stage Manager.

Wardrobe Attendants

Upon Hearing the Fire Alarm Bells:

- Check that the dressing rooms have been evacuated.
- Assist elderly actors and children, if necessary.
- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Report in with the Stage Manager.

Wigs and Makeup Staff

Upon Hearing the Fire Alarm Bells:

- Exit the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator.
- Report in with the Stage Manager.

Children's Supervisor

Upon Hearing the Fire Alarm Bells:

- Assist the children in evacuating the theatre through the nearest safe exit and meet at the meeting place. Do not use the elevator
- Report in with the Stage Manager.

House Manager

Upon Hearing the Fire Alarm Bells:

- Pick up the Clear-Com headset in the House Manager's Office.
- Take these Emergency Procedures, the Emergency Contact List, a safety vest, a pen, a note of the house count, a staff list and a work schedule.
- When the Stage Manager tells everyone to begin the Evacuation Procedure, go off headset.
- If any exits are known to be unsafe due to fire or smoke, direct people to an alternative exit.
- Supervise the audience evacuation from the building.
- If safe to do so, ensure the auditorium is clear.
- Exit the theatre via the safest route and meet at the meeting place. Put on the safety vest for increased visibility.

- Conduct head counts:
  - Ushers
  - Food & Beverage Staff
  - Ticket Office Staff
- Report any missing personnel to the Fire Department.

Following the Evacuation:

- Meet the Stage Manager at _____ (location) to discuss resuming or canceling the performance.
- Ensure the Senior Managers have been contacted. If needed, the Emergency Contact List is available _____ (location).
- In the event that the performance is cancelled, arrange reimbursement or credit for tickets.
- Inform patrons and staff of the decision to resume or cancel the performance, as well as details about reimbursement or credit for tickets, if needed.

Ushers

Upon Hearing the Fire Alarm Bells:

- Prepare for evacuation:
  - Open all curtains and auditorium and lobby doors.
  - Check washrooms are clear.
  - Stand near the fire exit doors.
- The ASM will make the evacuation announcement from the stage.
- If any exits are known to be unsafe due to fire or smoke, direct people to an alternative exit.
- Direct patrons to the nearest safe exit, as announced, saying, “This way out please. Go to _____ (location).”
- When the auditorium is mostly cleared, assist patrons as needed.
- Once the theatre is clear, exit the theatre via the safest route and meet at the meeting place.
- Report in with the House Manager.

Glossary

Acute Illness or Injury

A physical injury or sudden occurrence of an illness that results in the need for immediate care.

AEII (Alberta Employment, Immigration and Industry)

The government ministry responsible for the *Occupational Health and Safety Act, Regulation* and *Code*. Its job is to work with employers and workers to ensure legislation is followed as much as possible to prevent workplace incidents, injuries and illnesses, and to ensure employers and workers are educated in their occupational health and safety duties.

Best Practice

A best practice in health and safety is a program, process, strategy or activity that: has been shown to be effective in the prevention of workplace injury or illness; has been implemented, maintained and evaluated; is based on current information; and is of value to, or transferable to, other organizations. Best practices are living documents and must be reviewed and modified on a regular basis to assess their validity, accuracy and applicability. They may and often do exceed the requirements of OHS legislation.

Competent Worker

An adequately qualified, suitably trained person with sufficient experience to safely perform work without supervision.

Due Diligence

The level of judgment, care, prudence, determination and activity that a person would reasonably be expected to do under particular circumstances.

Emergency

Any situation or occurrence of a serious nature, developing suddenly and unexpectedly, and demanding immediate attention.

Employer

You are an employer if: you employ one or more workers; you are designated to represent an employer; your responsibility is to oversee workers' health and safety; or you are self-employed.

Equipment

A thing used to equip workers at a worksite; includes tools, supplies, machinery and sanitary facilities.

First Aid

The immediate and temporary care given to an injured or suddenly ill person at a worksite using available equipment, supplies, facilities or services. First aid has three objectives: preserve life; prevent the injury or illness from becoming worse; promote recovery.

First Aider (emergency, standard or advanced)

A competent individual designated by an employer to provide first aid to workers at a worksite.

Hazard

Any situation, condition or thing that may be dangerous to the safety or health of workers. There are four standard hazard categories: physical hazards; chemical hazards; biological hazards; and psychosocial hazards.

Hazard Assessment

Careful evaluation of all equipment, machinery, work areas and processes to identify potential sources of hazards that workers may be exposed to.

Hazard Control

Control measures implemented to eliminate or reduce the risk of harm to workers.

Illness

See Acute Illness or Injury.

Imminent Danger

Any danger that isn't normal for a job, or any dangerous conditions under which a worker wouldn't normally carry out their work. If workers think their work may put them or another worker in imminent danger, they must refuse to do it.

Incident

An undesired event that results in physical harm to a person or damage to property, including near misses.

Injury

See Acute Illness or Injury.

Joint Health and Safety Committee

A group of worker and employer representatives working together to identify and solve health and safety problems at the workplace. In Alberta, the establishment of a committee is *voluntary,* except for those workplaces required by Ministerial Order to have a committee.

Near Miss

An incident that did not cause visible injury or property damage but that could have resulted in serious injury, personal harm, death or property damage.

OHS Act (Occupational Health and Safety Act)

The *Occupational Health and Safety Act* sets out general requirements to ensure workplace conditions are safe and do not pose a danger of injury or illness. A general duty clause serves as a blanket statement that employers are accountable for the health and safety of workers.

OHS Code (Occupational Health and Safety Code)

The *Occupational Health and Safety Code* sets out specific health and safety requirements for work-related operations and practices within Alberta's various industries to ensure that workplace conditions are safe and do not pose a danger of injury or illness.

OHS Regulation (Occupational Health and Safety Regulation)

The *Occupational Health and Safety Regulation* sets out requirements for specific workplace conditions and work practices that must be met in order for a workplace to be considered in compliance with OHS legislation.

Partnerships in Health and Safety

A voluntary Alberta program of Workplace Health and Safety based on the concept that when employers and workers build effective Health and Safety Management Systems the human and financial costs of workplace injuries and illnesses will be reduced.

Personal Protective Equipment (PPE)

Equipment or apparel that when worn lessens the potential harmful effects of a known hazard (i.e. gloves, hard hats, steel-toed footwear, etc.).

Prime Contractor

If there are two or more employers involved in work at a worksite at the same time, there must be a prime contractor. The prime contractor for a worksite is: the contractor, employer or other person who enters into an agreement with the owner of the worksite to be the prime contractor; or if no agreement has been made or is in force, the owner of the worksite.

Reasonably Practicable

A legally defined term that is assessed using the reasonable person test.

Reasonable Person Test

The assessment of what a dozen peers would consider reasonable in a similar set of circumstances, resulting in a balanced and wise judgment that could be defended to others.

Safe Work Practice

A written set of guidelines that establishes a standard of performance for an activity.

Safe Work Procedure

A written, step-by-step description of how to perform a task from beginning to end.

Standards

Standards are produced by voluntary organizations, such as the Canadian Standards Association (CSA), American National Standards Institute (ANSI) and the International Organization for Standardization (ISO). Standards do not have the power of law. However, if they are adopted by legislation, they become part of the law and are enforceable. For example, if the OHS Code states that workers must wear footwear approved to a particular CSA standard, then the CSA standard has the power of law.

WHMIS (Workplace Hazardous Materials Information System)

A comprehensive plan for providing information on the safe use of hazardous materials in Canadian workplaces. The information is provided by means of: product labels; Material Safety Data Sheets (MSDS); and worker education programs.

Worker

A person engaged in an occupation, including managers, supervisors and volunteers.

Workplace Health and Safety (WHS)

A division/department of Alberta Employment, Immigration and Industry.

PART TWO

BEST PRACTICES

PART TWO: BEST PRACTICES

Chapter One: Introduction

Chapter Two: Physical Hazards
General Safety Precautions—*OHS Code* Part 12
Venues
Strike
Design and Construction
Rehearsals and Performance
Stage Combat
Weaponry
Electrics
Explosives/Pyrotechnics—*OHS Code* Part 33
Working at Heights—*OHS Code* Parts 8, 9, 22 and 23
Rigging—*OHS Code* Part 21
Tools, Equipment and Machinery—*OHS Code* Part 25
Managing the Control of Hazardous Energy (Locking Out)—*OHS Code* Part 15
Powered Mobile Equipment (Vehicles)—*OHS Code* Part 19
Lifting and Handling Loads (Manual Materials Handling)—*OHS Code* Part 14
Repetitive Strain Injuries
Noise in the Workplace—*OHS Code* Part 16

Chapter Three: Chemical Hazards
Workplace Hazardous Materials Information System (WHMIS)—*OHS Code* Part 29
Open Flame
Atmospherics (Smoke and Fog)

Chapter Four: Biological Hazards
Communicable Diseases—*OHS Code* Part 35
Mould

Chapter Five: Psychosocial Hazards
Working Alone—*OHS Code* Part 28
Violence—*OHS Code* Part 27
Fatigue

Chapter One

INTRODUCTION

INTRODUCTION

Consider all the different departments, craftspeople and workers it takes to create and produce theatre. Consider all the different productions you have been a part of and seen.

While the work performed in rehearsal halls, production shops, backstage and during production is as dramatically different as the workers performing the work, all workers in the theatre industry have similar hazards to contend with and can employ similar methods of hazard elimination and control. Hazard assessment and control is the foundation of a safe and healthy workplace and is the most important and basic step toward success in our industry. Refer to Part One: Chapter Four for detailed information on hazard assessment and control.

This section provides an extensive overview of hazards—tasks, equipment and materials, working conditions, etc.—that are encountered in many theatre departments during all stages of production and "best practices" on how to eliminate, minimize and control these hazards. Best practices address engineering controls, administrative controls, safe work practices and procedures, personal protective equipment, safety equipment and other methods for ensuring the health and safety of workers.

This section should be read and used in tandem with OHS legislation, and assumes that a proper hazard assessment has already been performed at the worksite or for the production, and that competent/trained workers are engaged in the work.

Chapter Two

PHYSICAL HAZARDS

In This Chapter

- General Safety Precautions—*OHS Code* Part 12
- Venues
- Strike
- Design and Construction
- Rehearsals and Performance
- Stage Combat
- Weaponry
- Electrics
- Explosives/Pyrotechnics—*OHS Code* Part 33
- Working at Heights—*OHS Code* Parts 8, 9, 22 and 23
- Rigging—*OHS Code* Part 21
- Tools, Equipment and Machinery—*OHS Code* Part 25
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- Powered Mobile Equipment (Vehicles)—*OHS Code* Part 19
- Lifting and Handling Loads (Manual Materials Handling)—*OHS Code* Part 14
- Repetitive Strain Injuries
- Noise in the Workplace—*OHS Code* Part 16

Appendix Items

- Requirements Under the *Firearms Act* for Stage Productions—
  courtesy of the Canada Firearms Centre
  www.cfc-cafc.gc.ca

General Safety Precautions—*OHS Code,* Part 12

Legislated Requirements

- Worksites must be kept clean and free of tripping hazards.
- Materials and/or equipment must be placed, maintained or stored so it will not cause injury to workers.

Reference: *OHS Code*, Part 12

Best Practices for Cleanliness and Slipping/Tripping Hazards

- Provide adequate work and storage space for each department and worker.
- Establish a safe work policy for the cleaning of all work areas on a regular basis and ensure that workers have the supplies and equipment they need to keep their work areas clean.
- Establish strict cleanliness policies for areas where tools and equipment are used. Clutter, sawdust, paint, unsecured ground cloths, etc. can hide (and create) potential hazards.
- Cables, cords and hoses should be positioned in minimal traffic areas and always covered/taped down to the floor or suspended from above.
- Remove any and all nails protruding from lumber.
- Liquids used on and off stage as part of production design or stage business, as well as liquid residues formed from the use of atmospherics (smoke, fog, dry ice, etc.), can create slipping hazards on floors and other surfaces. Apply non-skid paint treatments, mats or adhesive strips to hazardous areas and surfaces, or ensure workers have adequate footwear for conditions.

Best Practices for Storage

- Do not place materials or equipment where they will restrict worker movement or block aisles or exits.
- Maintain accurate storage inventory (e.g. costumes, props, lighting equipment), store items by category and stack shelves to prevent awkward weight distribution and reaching.
- Ensure storage shelves and racks are adequately engineered to withstand intended use/abuse.
- Invest in rolling stepladders with railings for costume and prop storage facilities.
- Ensure adequate lighting in all storage facilities and areas.
- Store flammables and other chemicals as required by Material Safety Data Sheets (MSDSs) and manufacturers.
- Mark storage locations with signs and warnings.

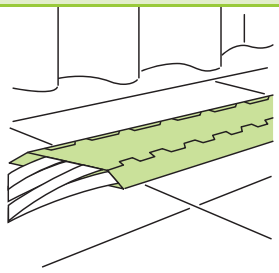
REAL LIFE CREATIVE SOLUTIONS

Challenge

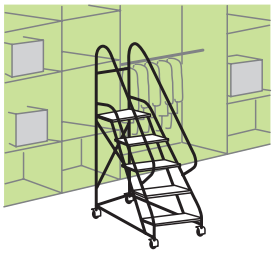
A projector needed to be positioned in the house—on the floor directly in an audience aisle—in order to achieve proper projection image size.

Solution

The scenic carpenters built a small "bridge" to cover the projector and fixtures, secured it to the floor in front of the audience seating risers, and carpeted it to blend with the house décor.



covered cables



rolling stepladder in costume storage

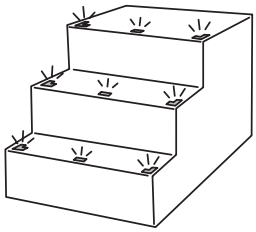
- Keep product containers tightly closed and in an upright position when not in use.
- Prevent product containers from being damaged.
- When transferring products to new containers, make sure the container material is compatible with the product and properly label the new container.

Best Practices for "When the Lights Go Out" (Focus, Level Set, Cue to Cue, Technical and Dress Rehearsals and Running the Show)

emergency exit sign

One of the basic principles of workplace health and safety is that work areas be and remain well lit and free of trip hazards at all times. In theatre, however, much of the work is done in the dark with any number of physical hazards present. Theatre artists are almost always trying to achieve true black in the theatre when the house lights go out—irked by glowing red emergency exit signs and running lights on stairs in the house, they compromise aesthetics for safety all the time. Controls such as using blue-outs or brown-outs instead of black-outs, installing backstage and onstage safety lighting such as light emitting diodes (LEDs), and spiking scenery and other hazards with glow tape all help to provide enough light and definition for work to be done safely.

- Leave as much work light on as possible at all times: when rehearsing, hanging and cabling lights and audio gear, during set installation and strike, on breaks and prior to/following the performance, etc. Ensure flashlights and/or headlamps are available for all workers who may need them.
- **Before the work lights go out** (during preproduction, in rehearsal or for performance):
  - Ensure all workers have received a safety orientation for the venue/worksite.
  - Identify, minimize and mark all hazards backstage and onstage.
  - Spike/glow tape all riser, stage, stair and other edges, as well as corners, entrances and exits. Charge glow tape.
  - Spike/glow tape all railings, handholds and other safety design features. Charge glow tape.
  - Set up, test and turn on all backstage and onstage running light systems/LEDs.
  - Ensure exit signs, aisle and other safety lighting are functioning, turned on and visible.
  - Rehearse all hazardous sequences—such as scene and costume changes, dance, stage combat and stunt choreography—under work lights until they can be done with accuracy, confidence and safety in performance light.
  - Ensure costumes, props and moving scenery are ready and in place.
  - Front of House workers should ensure that audience members are seated before the house lights go out. They should be provided with flashlights for emergencies and for safely seating latecomers.



scenery properly glow taped

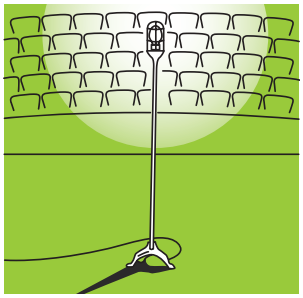
- **When the work lights go out** (during preproduction, in rehearsal or for performance):
  - All unnecessary movement in the theatre (backstage, onstage and in the house) should be kept to a minimum.
  - Designers and technicians should work to minimize the total time work light is off.
  - With the exception of lighting focus, no work on ladders, scaffolding or personnel lifts should be performed.
  - No set pieces or other equipment should be moved unnecessarily.

- Communication between the stage manager, lighting operator and backstage crew must be maintained at all times.
- Stage management must monitor all movement onstage and backstage including actors and technicians. Consider investing in infrared cameras to monitor movement in the dark.
- Backstage and onstage workers must alert stage management if they encounter any new hazards, including light levels that are too low to work safely.
- If there are any newly identified safety hazards, work must stop until the hazard has been addressed.
- If a hazard is identified once a performance is in progress, the stage manager and worker(s) at risk must decide if the hazard is an imminent danger, and make a decision about stopping the show.

In the case of a blackout:

- During rehearsals and technical work, all workers must be informed before a blackout can occur. The lighting operator must be heard by all saying "Going to Black."
- All movement on and off stage must be kept to a minimum during the blackout.
- Blackouts must be kept to a minimum, in number and length.
- Similarly warn workers before restoring lighting in the theatre from a blackout or dimly lit state.

Do not leave a performance space or venue in pitch-blackness. Leave a "ghost light" or other light source on when the theatre is not in use.



ghost light

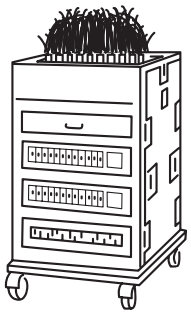
Venues

Not all theatre takes place in a "perfect" venue. Productions occur anywhere and everywhere—from old movie theatres to church basements, city parks to school gymnasiums, warehouses to storefronts. When installing a performance venue into an existing space designed/engineered for other purposes, extreme care must be taken to ensure that a safe and healthy working environment for all workers, and eventually the audience, is created and maintained. Also, working in unfamiliar spaces is a common issue—theatre workers are mobile and venues, be they theatres or not, are often rented for rehearsals and single productions. Renters should always ensure that venues, even when rented from/managed by a theatre company, are free of hazards that could put their workers at risk.

Best Practices

Consult Building and Fire Code regulations when choosing a space as a venue. Not all spaces are suitable for conversion into theatres.

Obtain hazard assessments and other appropriate information, such as maps with emergency exits and equipment highlighted, from the building owner. Learn the approved occupancy/capacity of the space, building emergency procedures and equipment, the fire alarm system, breaker panels, ventilation system and temperature control system; find out if there are potential concerns related to noise, air quality, cleanliness, building materials, general disrepair, etc.



dimming rack—
ensure adequate power supply

- Ensure adequate entrances and exits for workers and the public. Emergency exits must be marked with emergency signage and be equipped with panic hardware.
- Ensure adequate structural support for any materials and equipment to be hung and/or rigged. Use ground support (scaffold towers) in venues where you do not know the ceiling/roof's load capacity.
- Use engineered structures for temporary staging and/or audience platforms. Ensure platforms are securely fastened together and evenly joined. If the joins cause an uneven surface, cover the surface completely to ensure it is level.
- Ensure adequate power supply for electrical load.
- Take safety equipment and supplies with you to the worksite—first aid kits, PPE, etc.
- Invite a municipal fire inspector to inspect temporary venues for safety concerns and requirements.

Strike

Strikes can be very dangerous—many workers from many departments converge onstage and backstage with scenery, props, costumes, lighting and audio equipment, cabling, etc. Because of the number of workers involved and the number of activities taking place simultaneously/in close quarters, good planning and management are essential.

Best Practices

- Production managers and technical directors should ensure that everyone is aware of their duties and be present at the strike to supervise the work.
- Supervisors should not participate in the physical labour of the strike.
- Schedule strikes so that different departments work at different times.
- At each hour interval, a five-minute assessment of progress should be done with all department heads and/or crew chiefs. Work does not necessarily need to stop for these assessments to occur.
- Avoid scheduling strikes directly following a closing performance and directly before the cast and crew party when feasible. Fatigue is often an issue and everyone is looking to be done as quickly as possible. If the strike must be performed immediately, use a new crew.
- Strikes should only proceed under full work light.
- Items and equipment in pathways should be removed first, followed by props and furniture.
- Particular attention should be paid to overhead work and working at heights.

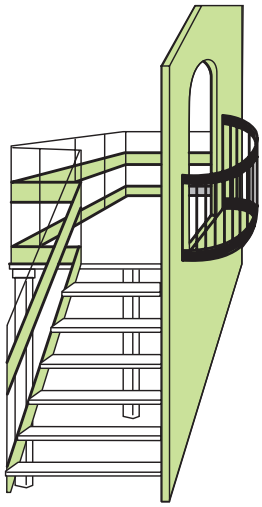
See both Best Practices for Working at Heights and Best Practices for Rigging for more information.

Design and Construction

Production managers, technical directors, stage managers and designers must conduct hazard assessments for each production which should address set interaction, performance activity, scene changes, costume changes, pyrotechnics, open flame, atmospherics and any other potential hazard backstage or onstage, as well as any previously noted venue hazards.

Best Practices for Design and Construction

- Hazard assessments for venue conditions, sets, props, costumes, lighting, sound, special effects, etc. should be undertaken at the design stage and progressively as required throughout construction, rehearsal, installation, performance and strike.
- The safety of all who handle, wear or interact with design elements should be taken into account in all stages of design, purchase, construction, repair, maintenance and use.
- Designers should always take into consideration the size, physical fitness and movement/blocking needs of performers and crew.
- Use professionally engineered and manufactured products. Do not alter or compromise engineered products.
- Specialty items constructed for productions should be accompanied by instructions for their use, care and maintenance.
- Design elements should be checked regularly for wear or damage and repaired or replaced when necessary.
- Performers and crew should immediately report any signs of wear or damage to design elements to a member of the stage management team.



set design with guardrail

Best Practices for Scenic Design

- Designers, technical directors and scenic carpenters should have an intimate understanding of building standards and codes, and the reasons for their existence. Sets should be constructed according to building standards.
- It is not uncommon for production designs to include practical set pieces that are more than 3 meters high. If workers, including performers, are to work on elevated set pieces, they must be protected from falling.
- Sets and scenery should be actor/crew friendly—both for movement during performance and for scene changes.
- Moving and automated platforms and scenery, as well as other hazardous set elements such as raked stage floors, need to be designed and constructed with care and attention to safety features.

REAL LIFE CREATIVE SOLUTIONS

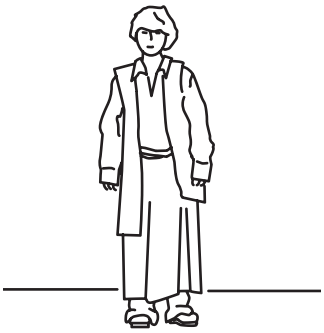
Challenge
An actor needed to get from the top level of a two-storey set to the stage level very quickly during a musical number.

Solution
A pool slide was installed and secured backstage. This saved the actor from having to jump into the arms of stagehands waiting below!

Best Practices for Lighting Design

- Use blue-outs and/or brown-outs instead of black-outs whenever practicable.
- Use offstage lighting to silhouette hazards backstage.
- Lighting instruments should be focused with respect for the actors' height, performance requirements, etc. If performers are unavailable for the focus session, use light walkers of the same height as the performers.
- Performers should not look directly into stage lights.

See Best Practices for Electrics for more information.

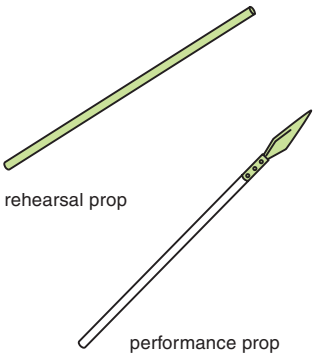


ill-fitting costume—performance hazard

Best Practices for Costume Design and Construction

- Within the reasonable bounds of period, style and character, costumes (including footwear, masks, wigs and headgear) should be designed, constructed and fit so as not to impede performers' movement, vision, breath or hearing, or to cause injury or unnecessary discomfort.
- Rehearsal costumes and footwear should be provided wherever practicable and should be as close as possible in size, weight and shape to the intended performance articles.
- The company should ask performers and craftspeople if they have any specific allergies or sensitivities to costume or costume care materials (i.e. fabrics, dyes, detergents), or street makeup, stage/special effects makeup or other skin/hair products. Workers should report immediately any adverse reaction, irritation, discomfort or illness from such products. Aerosolized products, such as static guard, hairspray and self-tanners should only be used in well-ventilated areas.
- Dyes, solvents or other chemicals used in the construction, repair and maintenance of costumes should be allowed to off gas completely before use.

  Performers should be given adequate instruction and rehearsal time to become accustomed to all costumes as they will be used in performance, including costume quick changes.
- When open flame or any pyrotechnic effect is used onstage, costumes worn near the flame or effect must be made fire retardant and tested before use.



See Best Practices for Chemical and Biological Hazards for more information.

Best Practices for Props

- The company should ask performers and craftspeople if they have any specific allergies or sensitivities to materials or products that may be used in prop construction. Workers should report immediately any adverse reaction, irritation, discomfort or illness from prop materials.
- Paints, dyes, adhesives and solvents used in construction, repair and maintenance should be allowed to evaporate completely before the prop is used.

- Portions of props that may potentially come into contact with performers or other workers should be free of materials or finishes that could cause injury (rough edges, chips, loose material, etc.).
- Hand props should be designed, chosen and built with consideration for their specific use onstage and physical demands on the performers.
- Rehearsal props should be provided wherever practicable and should be as close as possible in size, weight and shape to the intended performance articles.
- Performers should be informed of any changes to a hand prop or stage business already in place and be given adequate instruction and time to work with the changes before performance.
- Particular attention should be paid to the safe handling and use of food and beverages to be consumed during a production. There should be no consumption of alcohol onstage.

See Best Practices for Chemical and Biological Hazards for more information.

REAL LIFE CREATIVE SOLUTIONS

Challenge
Several eggs needed to be broken onstage—both over an actor's head and on the set.

Solution
Eggs were refrigerated in the green room, and washed for each show in a bleach solution as part of the preshow routine. Cleanup of the egg material on the set was integrated into stage business during the transition and following scene to eliminate a possible slipping hazard.

Rehearsals and Performance

Best Practices

- Rehearsal spaces should allow adequate room for free movement and blocking. Set design features should be marked/taped on the floor to scale from the beginning of the rehearsal process.
- Stage managers should ensure adequate time in the rehearsal schedule for the safe and successful integration of all potentially hazardous production elements, including stage combat sequences, firearms, performer flying, pyrotechnic or atmospheric effects, costume changes and scene changes. The stage manager should note rehearsals that will be used to integrate any of these elements on the rehearsal schedule and callboard.
- The stage management team must develop clear, specialized communication systems for any running crew or performers involved in hazardous sequences. These communication systems must be rehearsed adequately and regularly.
- Performers involved in dance, stage combat or stunt choreography should have dedicated and uninterrupted warm-up time and space prior to each rehearsal and performance.
- Special consideration should be given to productions involving children and/or animals. A full safety system specifically for them should be established.
- Section 28:00 of the Canadian Theatre Agreement (CTA)—Working Environment, Health and Safety—outlines industry standards for various health and safety issues for performers, including extraordinary risks, rehearsal space and staging requirements, dressing room requirements and general health, wellbeing and care. They are good guidelines to follow regardless of whether or not your theatre engages performers who are members of Canadian Actors' Equity Association.

Stage Combat

Stage combat is a coordinated series of moves creating the illusion of violent intent, requiring specific timing and skill, involving either unarmed combat or the use of weapons. It includes any activity that is not normally executed by the average person and that performed incorrectly would most likely result in bodily injury. Stage combat is hazardous, and due diligence must be exercised to reduce the danger to an acceptable risk.

Best Practices

- Always employ a competent fight director/choreographer. This means someone recognized as competent by peers in the theatre community/entertainment industry. Fight Directors Canada (**www.fdc.ca**) offers training and certification for fight directors. Community theatres that traditionally employ volunteer/non-professional labour should make an important exception in this case and seek a professional to assist.
- The Canadian Theatre Agreement (CTA) between the Professional Association of Canadian Theatres (PACT) and Canadian Actors' Equity Association (CAEA) requires that a fight director be contracted whenever two or more artists are required to participate in a stage fight involving one or more of the following elements: weapons of any sort, including furniture or other props used as weapons, and/or martial arts and unarmed combat.
- Fight directors should be consulted regarding the design of all physical elements (scenery, lighting, props, costumes, weapons, etc.) for the production that could affect the fight choreography.
- Appoint a fight captain, a member of the cast with stage combat experience, to observe rehearsals of all stage combat sequences and supervise/run rehearsals prior to each performance in the absence of the fight director.
- Pre-show rehearsals for all stage combat sequences should be mandatory.
  - Ensure complete control of the space. Allow no distractions once the rehearsal has started.
  - Do not rush the rehearsal under any circumstances.
  - Run each sequence a minimum of three times before each show: first as a walk through, then again at 75% of performance speed with full intention. Corrections should be given between the second and third runs only if necessary.
- Actors should never be allowed to rehearse or perform a fight under the influence of drugs, alcohol, extreme fatigue or illness.

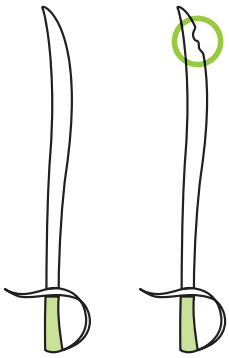
Weaponry

Weapons are defined simply as "any object used in a staged fight for attack or defense" (Ontario Ministry of Labour, *Safety Guidelines for the Live Performance Industry in Ontario, 3rd Edition*). This includes edged/bladed weapons, firearms and props or furniture used in stage combat choreography. It is impossible to remove all risk posed by the use of weapons—theatre strives for a level of acceptable risk by attempting to eliminate and control as many potential hazards as possible.

The *Criminal Code of Canada* and the *Criminal Code Regulations* prohibit and restrict certain weapons, firearms and other devices, including certain replica/imitation weapons and firearms. These laws include the definitions and prescriptions of prohibited and restricted weapons, firearms and other devices and can be found on the federal Department of Justice website at **www.justice.gc.ca**. Additional information can be obtained from the Canada Firearms Centre at **www.cfc-cafc.gc.ca**.

Best Practices for Non-Firing Weapons

- Employ a competent weapons handler. In some situations, where appropriate, the fight director, assistant stage manager, stage carpenter, etc. may perform this duty.
- Only weapons specifically designed for stage combat and approved by the fight director and/or weapons handler should be used. Ornamental, costume, antique or ceremonial weapons are not acceptable. Do not use any weapon that depends on a mechanical action for safety, such as retractable or collapsible weapons.
- Develop a written weapons policy outlining the competencies and training for all workers who handle weapons, as well as policies and procedures for transportation, handling and storage of stage weaponry. The unauthorized use of any weapon should be forbidden.
- All edged/bladed weapons (swords, knives, daggers, pole arms with a blade attached, etc.) must have their points foiled—made blunt—and their blades properly balanced. Never allow a sharp blade in rehearsal or on the stage.
- The weapons handler must maintain all weapons in safe working order, according to law and manufacturer's specifications.
- The weapons handler, as well as the performer to use the weapon, should inspect the weapon prior to each use, as close to the actual time it is required in rehearsal or on stage as practicable. Weapons should be inspected for any damage, default or compromise, such as loose handles, loose blades or burrs (jagged cuts a blade develops when it strikes another blade or solid object).
- The fight director and weapons handler only should instruct performers in the safe, proper and appropriate handling and use of all weapons. Weapons should not be given to performers or other workers until they are deemed competent to handle them.
- Performers should use the same weapon(s) in all rehearsals and performances.

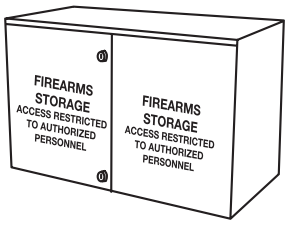


good sword blade vs.
damaged sword blade

- During rehearsals and performance, weapons should be placed away from entrances and exits and in such as way that they will not cause injury. The weapons handler or designate should supervise the weapons at all times.
- The weapons handler should log all weapon use.
- All weapons should be secured in locked cabinets when not in use.
- All weapons should be accounted for and secured before workers are allowed to leave the worksite.

Best Practices for Firearms

- All Best Practices for Non-Firing Weapons should be followed.
- Consult the *Criminal Code of Canada, Criminal Code Regulations* and *Canada Firearms Act* to determine whether the device you intend to use and the manner in which you intend to use it is subject to specific laws and licensing requirements. Contact the provincial Chief Firearms Office with specific questions. In Alberta, call 780-495-7799 or 1-800-731-4000 (extension 9026).
- Companies that possess firearms, prohibited weapons or prohibited devices are required to comply with the regulations of the *Canada Firearms Act.* Of particular interest may be the regulations presented in *Storage, Display and Transportation of Firearms and Other Weapons by Businesses* and *Special Authority to Possess.*
- **Use only non-firing or blank-firing devices**—devices that cannot, and cannot be altered to, discharge live ammunition.
- **Use only blank ammunition**—ammunition containing a wax paper wad projectile designed to combust on firing. Be aware that **blanks can seriously injure or kill workers** if the firearm is not properly maintained or handled.
- Live ammunition—ammunition containing a projectile—must never be used nor brought to the theatre/stage.
- All firearms, including non-functional reproductions, should always be treated as if they were loaded.
- All firearms must be registered. If you borrow or rent a firearm, ensure you obtain its registration certificate as well.
- Employ a licensed firearms technician as the weapons handler. Be sure the worker has the appropriate license and any additional required training for the firearm being used.
- All firearms must be stored in accordance with federal regulations. Firearms should be stored unloaded, with trigger locks, in locked cabinets. Fake and/or toy guns should be stored as if they are real firearms. Alarm systems are highly recommended for storage facilities.
- Keep an accurate inventory of all firearms, including which are blank-firing devices or non-firing devices. Post the inventory wherever firearms are stored (inside the locked cabinet).



properly signed gun cabinet

- Weapons and ammunition should be stored separately whenever possible.
- Smoking must not be permitted in any area where ammunition or powder is stored. Signage should be posted.
- All workers (crew, performers, front of house, etc.) should be informed in advance of the intention to use a firearm in a production.
- Rehearsals in which a firearm will be present and/or used should be clearly marked on the rehearsal schedule and callboard.
- All workers in the building/area should be warned prior to the firing of a blank.
- Rehearsals should be conducted with non-firing devices, even if blank-firing devices are to be used in the production.
- Always limit the number of non-essential personnel in the area when firearms are in use.
- No one should ever be forced to use a firearm.
- Firearms should be inspected, maintained, loaded and unloaded by the weapons handler only. They should be loaded in the presence of the actors involved in the scene as close to the actual time that they are required on stage as practicable. They should be unloaded, inspected and secured as soon as they are off stage.
- Never hand a firearm to a person barrel-first.
- Firearms should never be pointed at anyone, including yourself and/or the audience, even when being fired during a performance.
- Ensure adequate PPE, including personal hearing protection, is provided for any performer or crew member who may require it.
- During performance runs, post "Gunshot" warning signs at the entrance to the theatre and print a notice in the program.

Electrics

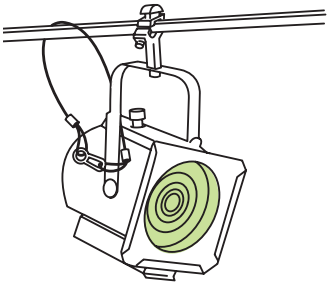
Electricity is a deadly force that must be handled with intelligence, respect and utmost safety.

Best Practices

- All outlets should be considered live until proven dead.
- Always consult a qualified electrician before beginning any electrical work. Only qualified electricians should undertake the maintenance and/or installation of electrical services.
- Only qualified electricians should "tie in" portable distribution panels to existing electrical services, if not outfitted with proper connectors such as pin and sleeve (P&S) or cam-lock.

- Temporary distribution of electricity from distribution points such as dimming systems, wall outlets, mains disconnects, distribution panels or generators should be done by competent workers only.
- All temporary services should be metered for correct voltage and polarity before any fixtures, dimmers or other devices are connected.
- All grounded equipment should be tested for continuity between the ground pin on the plug and the metal parts of the lighting equipment before it is put into service.
- Turn off power whenever possible. Be sure that all equipment that is being plugged and unplugged is in the off position to avoid creating an arc at the receptacle.
- All 4 or 5 wire connections with single wire connectors should be connected in the following order: 1) Ground; 2) Neutral; 3) Hot or Live. These connections should be disconnected in the reverse order (Ground last).
- A disconnect switch or main breaker should be put in line in front of the connection. All connections should be done with this switch in the off position.
- Maximum rated loads of lighting dimmers, cables and boxes must not be exceeded.
- Breakers must not be loaded to more than 80% of their rated capacity.
- All extension cords and cables must be of sufficient gauge, voltage and amperage rating.
- The connectors on the ends of the cords should have the similar ratings, be properly strain relieved and in good working order.
- Proper over-current protection should be used whenever there is a change in wire or cable size or receptacle rating in the distribution system. Adapters that reduce the receptacle rating from the plug that feeds them must contain over-current protection.
- Any light or appliance that requires a grounded circuit should always be supplied with one.
- Do not pull on the cord when unplugging equipment. This can cause the wires to pull out of their termination in the plug. Always grasp the plug firmly to unplug.
- Grounded extension cords should never have their grounding pins removed.
- Ground cheats (ungrounded male to grounded female adapters) should not be used.
- Ensure all cabling and cords are free of compromises such as cuts, frays, twists, kinks, etc. Check the entire length of cables being used. Cables should not be denatured in any way. If found, they should be discarded.
- Cables should not be spliced; they should be connected to approved terminals or connectors.
- Extension cords should not be used as permanent wiring.
- All electrical equipment and devices must be protected from the weather. When there is a possibility of moisture, all joins should be provided with adequate weather protection.

- Cables and devices must be protected from foot and automobile traffic.
- Only properly trained personnel should use or service "arc" or "higher voltage" gas discharge lamps.
- Metal shutters, barrels, housings and gobos can become extremely hot while in use. Always use gloves—preferably leather—when handling a powered lighting fixture.
- All lighting fixtures and accessories (gobos, gels, gel holders, etc.) must be safely secured and be equipped with a secondary fall restraint to prevent the fixture or its accessories from falling (i.e. a safety chain). Technicians must double check all safety chains when hanging lights. The distance that a fixture might fall before being stopped by its safety chain must be such that no strain is placed upon the electrical cord.
- Only use correct wattage lamps in approved fixtures. Fixtures should fully contain all parts of the lamp in the event of a lamp burst.
- Instruments without lenses should be equipped with wire mesh guards.
- Maintain adequate clearance between lighting fixtures and nearby items such as drapery, scenery, scrim, etc. Pay particular attention to fixtures on pipes that may travel, or may be blocked by drapery or scenery that travels.
- Lighting instruments should be inspected for electrical safety and maintained on a regular basis, including a formal annual check of the complete inventory.



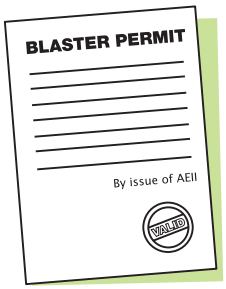
lighting fixture with safety chain

Explosives/Pyrotechnics—*OHS Code*, Part 33

Pyrotechnics are special effects in which chemical reactions are used to produce heat, light, gas, smoke and/or sound for entertainment purposes. Effects range from simulated lightning to an actor shooting a tiny flash of fire from his fingertips to feature scenic design elements such as burning buildings.

Hazards involved in working with pyrotechnic special effects include explosions, fires, smoke and chemical inhalation and/or contact. The mishandling of pyrotechnics can result in severe burns, wounds, vision and hearing loss, property damage and death. The safety of pyrotechnicians, other workers and the audience must be the prime consideration for all pyrotechnic events.

The use, handling, storage and transportation of explosives, including pyrotechnic materials, must be in compliance with all applicable federal, provincial and local laws. In Alberta, any worker who handles, prepares, fires, burns or destroys any type of explosive must hold a valid blaster's permit issued by Alberta Employment, Immigration and Industry (AEII) or a valid inter-provincial permit acceptable to AEII. A worker can qualify to apply for a blaster's permit after successfully completing an approved course, such as Natural Resources Canada—Explosives Regulatory Division's Pyrotechnics Special Effects Course (**www.nrcan.gc.ca**).



valid blaster's permit

Approval for all pyrotechnic events, including licenses and permits, must be obtained from the Authority Having Jurisdiction (AHJ), the agency responsible in any area for granting approvals related to pyrotechnic special effects. The most common AHJ is the fire department, but other agencies in various provinces/territories, cities or municipalities can also serve as the AHJ. In order to meet the AHJ's licensing and permit requirements, you must provide proof of sufficient liability insurance (a minimum of $1,000,000.00) and proof of the property/building owner's approval of the pyrotechnic event. Other specific requirements for obtaining pyrotechnic licenses and permits, such as test firing of effects, are at the discretion of the AHJ.

Legislated Requirements

- Section 468(1) of the *OHS Code* states that an employer must ensure that a worker who handles, prepares, loads, fires, burns or destroys an explosive is a blaster or under the direct supervision of a blaster.
- Section 467(2) of the *OHS Code* states that safe work procedures for the handling of pyrotechnic and special effects devices and explosives must be based on the National Fire Protection Association (NFPA) Standard 1126: *Standard for the Use of Pyrotechnics Before a Proximate Audience (2001 Edition)*. This publication can be purchased from the NFPA website at **www.nfpa.org**.

Reference: *OHS Code*, Part 33

Best Practices

- Always consider alternatives to pyrotechnics wherever possible.
- The blaster/pyrotechnician must be in attendance at all rehearsals and performances involving pyrotechnics.
- All workers should be made aware that pyrotechnics will be used in a production. The production team, performers and crew should be trained in, understand and follow all established procedures for the safe use of the pyrotechnic effect.
- Develop a comprehensive plan for all pyrotechnic effects that includes the following:
  - scale drawing indicating the location of the effect, the safety zones required and the location and proximity of other workers, the audience, scenery, all exits, etc.
  - the nature of the pyrotechnic materials to be used (e.g. height, range, fallout, duration) and their intended application/purpose
  - the sequence of firing
  - smoke, heat and ionization detection in the building/theatre
  - ventilation requirements for the effect
  - emergency evacuation and fire safety plans for the building/theatre
  - provision of safe and secure storage of effects
  - security
  - type and placement of fire extinguishers and hoses—a minimum of two fire extinguishers with a 3A – 60 B:C rating should be available, as well as a 10 litre pressurized water extinguisher (note however that not all fires from pyrotechnics can be put out using a fire extinguisher and local fire code may specify a certain type of extinguisher for the venue)
  - fire retardant requirements for drapery, set, prop and costume pieces

- Never dismantle smoke or heat sensors, or any other fire or safety equipment, without approval of the AHJ.
- Obtain Material Safety Data Sheets on controlled products you plan to use. In particular note whether the reactivity section lists any hazardous decomposition products.
- The following equipment is recommended when working with pyrotechnics:
  - eye protection
  - hand protection
  - cotton clothing (synthetic fabrics melt and stick to the skin)
  - a respirator/face shield (required when handling powders or liquids)
  - antistatic workstations/straps
  - danger tape and other signage
  - fire blanket
- Some manufacturers of pyrotechnics have proprietary tools available for use. The following guidelines are recommended for choosing tools appropriate for pyrotechnic work:
  - use non-sparking tools
  - use tools/cutters that reduce friction or impact
  - when testing electric circuits, use only current limited devices (under 0.025 amperes) such as blasting galvanometers—never use a multimeter!
- Any rehearsals used to test the pyrotechnic effects (including dry runs) should be clearly marked on the rehearsal schedule and callboard—along with the nature of effects being tested. Minimize the number of exposures to risk—if the pyrotechnic effect is not essential for all rehearsals then don't use it.
- Before involving performers and other workers:
  - the pyrotechnician should note blocking and emergency evacuation routes for all pyrotechnic effects in writing and distribute the blocking plan to all departments and individuals involved
  - a dry run of the effect(s) should take place to demonstrate timing, spacing and safety parameters
  - safety equipment and safety precautions such as fire extinguishers, warning and communication systems should be in place
  - the intended actions, possible deviations and the authority to abort should be made clear (the pyrotechnician must have the final authority on this)
  - the dry run should take place in an environment as free of distractions as possible
- When explosive materials are brought onsite, the property/building owner, stage manager and production manager should all be notified. The pyrotechnician should review the initial hazard assessment at this time.
- Signage should be placed at the theatre entrances to warn audience members of the use of pyrotechnics during a production.

- The production team must allow sufficient time for the pyrotechnician to prepare the explosive materials before each use and perform a final check of wiring, position, hookups and pyrotechnic devices to ensure that all are in proper working order.
- Wireless radio frequency (RF) transmitters—such as cell phones, two-way radios, etc.—can cause the accidental firing of pyrotechnic devices, a phenomenon caused by electromagnetic fields. A minimum of 4 meters separation between pyrotechnic wiring and the transmitters listed above is recommended. Schedule 10 of the *OHS Code* includes a table of recommended distances for all types of transmitters, as does the Institute of Makers of Explosives' (**www.ime.org**) publication *SLP 20: Safety Guide for the Prevention of Radio Frequency Radiation Hazards in the Use of Commercial Electric Detonators*.
- When firing pyrotechnics, the pyrotechnician must have an unimpeded line of sight to the product so he/she can determine that all personnel and equipment are at a safe distance and the product can fire safely. Where this is not possible, an assistant, who is in direct communication with the pyrotechnician and has an unimpeded view of the effect, must be assigned. The assistant must be familiar with the effect and know the conditions under which it would need to be aborted.
- After the display has been executed, confirm that all effects have successfully fired. If any explosives have not fired, treat the pyro as live. All unfired effects must be fired or disposed of in accordance with manufacturers' specifications. Confirm that there are no hot spots or fallout that have caused/will cause damage.

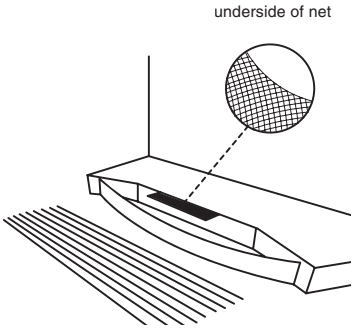
Working at Heights—*OHS Code*, Parts 8, 9, 22 and 23

To fall or not to fall. The question is why would you even risk it? Occupational health and safety legislation is very clear about fall protection and when and how it must be used.

Craftspeople, technicians, performers and various other theatre workers often need to work at heights. Working at heights includes work on ladders, pneumatic/electric personnel lifts, boatswain chairs, scaffolding towers, tall platforms or risers on set, in the grid or catwalks, fly towers, etc. Major hazards of working at heights include falling and injury to people below from falling objects.

Some theatres are fortunate enough to have permanent, engineered grids and catwalks with guardrails. Even when this is the case, however, technicians and craftspeople will need to use ladders or personnel lifts when installing set pieces, hanging drapery and masking, hanging and focusing lighting equipment, etc. Fall hazards must be identified for each work area and task, as well as for each production when design plans are submitted for approval.

Before work begins, every effort must be made to ensure the area below the work area is clear of people (see Best Practices for Rigging for more information). If possible, the area should be marked off and signed. Inside the theatre, workers should never be on stage or in the house if workers are above in the grid or on elevated working platforms. Those working at heights should empty their pockets and secure all tools to their bodies. They should also be sure that they are wearing appropriate footwear and clothing, to reduce the risk of slipping or snagging.



orchestra pit safety net
(illustration courtesy of SHAPE)

The preferred order for controlling fall hazards is:

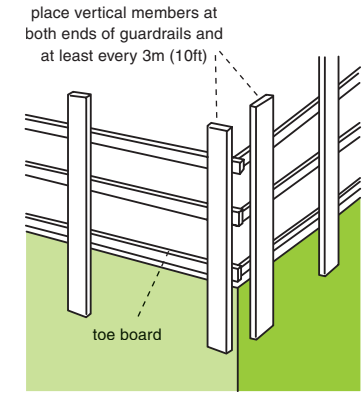
1. Elimination of the hazard—no exposed work at height
2. Engineering controls—such as guardrails or other barriers
3. Administrative controls—control zones (on flat surfaces only, such as stage decks)
4. Personal protective equipment:
   a. Personal travel restraint system that prevents a worker from reaching an edge from which he or she could fall
   b. Personal fall arrest system that stops a worker's fall before he or she hits a lower surface

Safeguards (Openings, Guardrails and Toe Boards)—*OHS Code*, Part 22

Legislated Requirements

- Openings or holes through which a worker could fall (trap, orchestra pit, etc.) must be protected by a securely attached cover or guardrails and toe boards. Temporary covers must be clearly marked/signed indicating the nature of the hazard.
- Guardrails, including temporary guardrails, must be constructed in accordance with the specific requirements listed in section 315 of the *OHS Code*.
- Toe boards are required where there is a risk of material falling to the work area below and must meet the specific requirements listed in section 321 of the *OHS Code*.

Reference: *OHS Code*, Part 22



guardrails and toe boards

Fall Protection—*OHS Code*, Part 9

Legislated Requirements

Fall protection is required if:

- a worker may fall 3m (10 ft) or more
- a fall from a lesser height may involve an unusual risk of injury (for example, onto an uneven set surface, moving scenery or live flame)

If a fall of 3m (10ft) or more may occur, and workers are not protected by guardrails, an employer must have a **written** fall protection plan. This must be in place and available at the worksite.

Workers must be trained in the fall protection plan and the safe use of the fall protection system before working in an area where a fall protection system must be used.

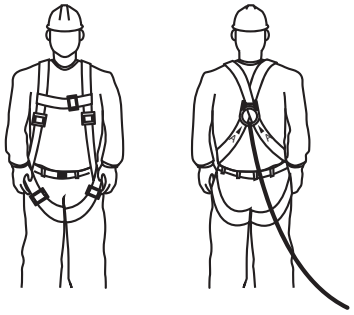
Reference: *OHS Code*, Part 9

A fall protection plan must include:

- the fall hazards at the worksite, including those that may arise during the construction, assembly, rehearsal, performance, changeover and strike phases of production
- the fall protection system to be used at the worksite
- the procedures used to assemble, maintain, inspect, use and disassemble the fall protection system
- the rescue procedures to be used if a worker falls or is suspended by a personal fall arrest system or safety net and needs to be rescued

Fall protection system means one or a combination of the following:

- a travel restraint system
- a personal fall arrest system
- a safety net
- a control zone
- another system approved by a Director of Inspection (Workplace Health and Safety)



travel restraint/fall arrest system

Travel Restraint Systems are the first line of defense when working at heights and should always be explored before fall arrest. Travel restraint systems prevent a worker from getting to an edge from which he or she could fall. The components of a travel restraint system must meet the standards listed in Part 9 of the *OHS Code* and workers must be trained in their proper use and maintenance. Components of the system usually include: lanyard, lifeline or horizontal lifeline with rope grab and connectors (snap-hooks, D-rings, carabiners, etc.). A full body harness is recommended in all situations.

Personal Fall Arrest Systems do not prevent a worker from falling, but rather catch a worker in mid-air before he or she hits a lower surface. All components must meet the requirements listed in Part 9 of the *OHS Code* and workers must be trained in their proper use and maintenance. Components of the system usually include: anchorage, full body harness, lanyard, shock absorber and connectors.

Control Zones may be used on level, elevated work surfaces, such as stage decks, as a fall protection system if workers will at all times be further than 2 metres from an unguarded edge. Controls zones must be no less than 2 metres wide when measured from the unguarded edge and must be clearly marked with an effective raised warning line or other equally effective method. Marking could include directional light emitting diodes or set pieces strategically placed to mark the zone.

Ladders—*OHS Code*, Part 8

Most work performed on ladders in the theatre is considered "temporary, light work"—which means that formal fall protection measures are not necessary, even when working at a height above 3m. This includes tasks such as scenic painting, hanging drapery, focusing lighting fixtures, etc.

There are three types of ladders used in live-performance work:

- portable ladders (straight ladders, extension ladders, A-frame ladders and stepladders)
- wheeled A-frame ladders
- permanent ladders (access ladders and escape ladders)

Legislated Requirements

An employer must ensure that workers do not use ladders to enter or leave an elevated or sub-level work area if the area has another safe and recognizable way to enter or leave it (e.g. a staircase or ramp).

A person must not paint a wooden ladder. Paint hides cracks and other damage.

A worker must not perform work from either of the top two rungs, steps or cleats of a portable ladder unless the manufacturer's specifications allow the worker to do so.

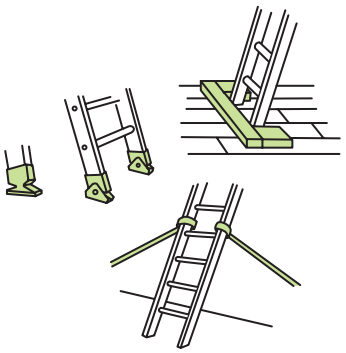
Constructed and manufactured ladders must meet the appropriate construction and CSA or ANSI standards listed in the *OHS Code*.

A worker must ensure that:

- portable ladders are secured against movement and placed on a base that is stable
- the base of an inclined portable ladder is no further from the base of the wall or structure than 1/4 of the height to where the ladder contacts the wall or structure
- the side rails of a portable ladder extend at least 1m above a platform or landing if the ladder is used as a means of access to the platform or landing

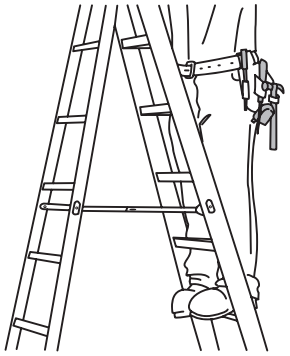
An employer must ensure that a worker working from a portable ladder from which the worker may fall 3m or more uses a personal fall arrest system. If it is not reasonably practicable to use a personal fall arrest system, a worker may work from a portable ladder without fall protection if:

- the work is a light duty task of short duration at each location
- the worker's centre of balance is at the centre of the ladder at all times
- the worker maintains three-point contact with the ladder



secured portable ladders

Reference: *OHS Code*, Part 8



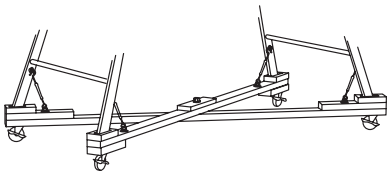
hand tools secured to body

Best Practices

- Follow manufacturer's instructions and specifications.
- Inspect ladders before each use. Remove damaged ladders from service.
- Hand and power tools must be used with utmost caution when working on ladders. Hand tools should be secured to the worker's body to prevent them from falling.
- Tools must never be left on a ladder or elevated work platform once a worker has returned to ground level.
- Work lights should be on when there is any movement up or down a ladder.
- If the work will take longer than 15 minutes, use another method such as a personnel lift.
- Do not climb ladders while carrying heavy or bulky objects. Position yourself securely on the ladder and rope the item up or down, or attach a pulley block to a rated overhead grid or rigging point and have ground crew raise or lower the object. If you are roping the item by hand, make sure the ladder is secure enough for you to do so safely (i.e. tie off the ladder at the top and secure it at the bottom or have ladder assistants foot the ladder).
- When necessary, use ladder assistants to:
  - foot the ladder
  - keep people out of the area
  - hook up and raise or lower equipment or materials on a rope

  note: The use of ladder assistants does not constitute fall protection.
- Prop ladders (or similar climbing structures) that are designed and constructed specifically as scenic units that will be visible to the audience must be included in a fall protection plan if they do not meet all legislated requirements. Prop ladders must be marked "for performance only" and all workers must be informed as such.

Best Practices for Wheeled A-Frame Ladders



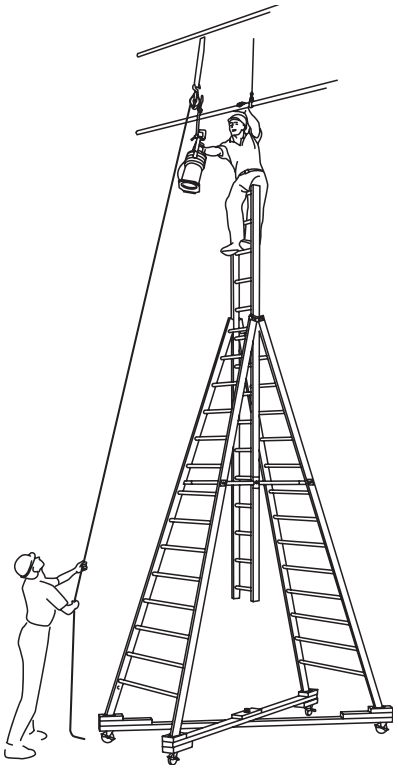
secured wheeled A-frame ladder
(illustration courtesy of SHAPE)

- Whenever possible, use a personnel lift for working at heights. If a lift is not practicable for your production or the task at hand, you may use a wheeled A-frame ladder. Wheeled A-frame ladders are extension trestle ladders mounted on a castered base. Avoid using casters mounted individually on each leg of the ladder. Instead, secure the ladder to a wheeled base assembly. Follow these guidelines for wheeled base assemblies:
  - use lockable casters
  - make sure each caster is rated to support the design working load of the ladder
  - attach casters to the base assembly using through-bolts, not screws
  - position casters directly under the ladder feet and make sure they are able to rotate freely without jamming
  - make sure the base assembly extends far enough beyond each foot so the casters can swing freely without jamming against adjacent objects
- The safest way to work from a wheeled A-frame ladder is to sit on the top rung. Follow these guidelines:

- have an assistant present while you get into position
- make sure the casters are locked and the ladder is stable before climbing it
- straddle the top rung of the vertical extension, placing one foot on either side of the second or third rungs
- keep your centre of gravity close to the ladder's centre line
- when moving into or out of position, keep both hands free and move carefully until you are comfortable and stable

You can move a worker on a wheeled A-frame ladder only if you are making small movements for tasks such as focusing adjacent light fixtures or tying soft goods along a pipe and are operating on a level surface free of potential hazards. In addition, you must follow these safety guidelines:

- do not move the worker to another work area or allow the worker to "monkey bar" their way to a new work area
- use two safety monitors to hold and move the ladder at its base and lock the wheels when the ladder is close to an edge
- set clear communication protocols between the worker on the ladder and workers on the ground
- the worker at the top of the ladder should direct all ladder movement



safely roping materials up to worker—worker is performing "temporary, light work," hence a fall protection system is not required (illustration courtesy of SHAPE)

Scaffolds and Temporary Work Platforms (Elevating Platforms/Aerial Devices)—*OHS Code*, Part 23

Scaffolds and elevating platforms/aerial devices (bucket lifts, scissor lifts, etc.) are frequently used in the theatre for a variety of tasks and purposes. Scaffolds are used by scenic artists to work at heights, by technicians to support truss and lighting equipment in both indoor and outdoor venues, and by designers as set pieces. Elevating platforms are often used when hanging and focusing lighting equipment, hanging drapery, rigging, etc., and are ideal for many tasks because they have built-in guardrails and leave both hands free to perform work.

Legislated Requirements for Elevating Platforms/Aerial Devices

- Personnel lifts must meet legislated CSA or ANSI standards.
- Only competent, trained workers may operate personnel lifts. Lifts must always be operated in accordance with the manufacturer's instructions and specifications.
- Workers must not travel in a basket, bucket, platform or other elevated device that is moving on a worksite if worksite conditions create a danger to the worker.

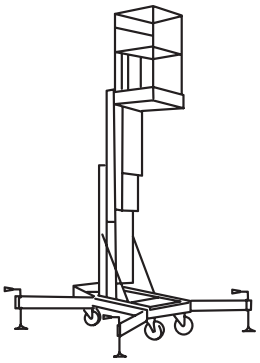
Reference: *OHS Code*, Part 23

Best Practices for Elevating Platforms/Aerial Devices

Inspect lifts before each use:

- If you find any defects that may endanger workers, repair the lift immediately or tag it and remove it from service.
- Keep inspection and maintenance records for all lifts. Some lifts must be certified annually. Check the equipment decal to ensure the certification has not expired.

Lifts must not be moved while an operator is inside the bucket (e.g. during a focus session) unless manufactured to do so.



personnel lift

- All support braces/outriggers must be in place at all times. Ensure the lift base and supporting ground are leveled and plumbed. On inclined surfaces, use wheel chocks and blocking.
- Set the braking system before elevating crew members.
- Check the work area for potential hazards such as traffic, power sources, openings and slopes before operating a lift.
- Never exceed the manufacturer's specified load limit.
- Do not use ladders or other objects/devices on top of the platform to increase height.
- Do not sit or climb on the railings of the basket or platform.
- Set clear communication protocols to be used between workers on the platform and those on the ground. Make sure all workers understand and use them.
- Lock out unattended lifts.

Legislated Requirements for Scaffolds

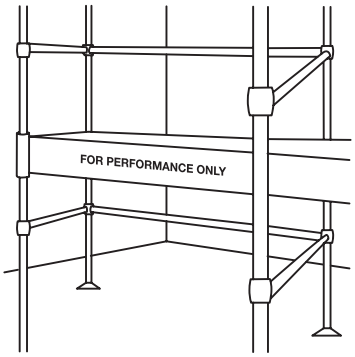
- Scaffolds must meet the CSA standards and all design, load, inspection and tagging requirements specified in the *OHS Code*.
- Scaffolds must be erected, used and dismantled by or under the supervision of competent, trained workers and in accordance with manufacturer's instructions and specifications.
- All workers must be informed of the maximum load a scaffold is permitted to carry.
- Workers must not use scaffolding unless it has been tagged indicating it is safe for use.
- Scaffolds and other metal grids/pipes/structures used to support lighting or power distribution must be effectively bonded to ground in accordance with the *Canadian Electrical Code*.

Reference: *OHS Code*, Part 23

Best Practices for Scaffolds

- Erect scaffolds only on solid footings. If necessary, use screw jacks to level scaffolds.
- Secure and rigidly brace the uprights to prevent swaying and movement. If a scaffold is higher than three times its minimum base dimension, secure the scaffold to the adjacent structure or use guylines and/or outriggers.
- Do not erect scaffolds near power lines or other energized high voltage electrical conductors.
- Install required guardrails and toe boards on platforms that are 3 m (10 ft) or higher.
- Do not mix and match components. Keep erection drawings on site.
- Inspect scaffolds daily before using them and after any modification.
- Use a ladder, stairway or other safe means to access the scaffold's working landings. Do not climb the outside of scaffold frames between landings.

- Do not use ladders or other objects/devices on top of scaffolds to increase height.
- Never overload a scaffold with materials or people. Do not exceed the manufacturer's load specifications.
- Secure and belay equipment when hoisting it up and down. When lifting materials more than three frames high from the ground, use a well wheel and davit. Secure equipment on top to the main framework of the scaffold.
- Do not remain on a rolling scaffold while others are moving it if the scaffold is higher than twice its minimum base dimension.
- Do not remain on a rolling scaffold if you are moving it and the platform is higher than one and a half times the scaffold's minimum base dimension.
- Do not work on a draped scaffold in outdoor conditions unless a professional engineer has determined that it is safe to do so in those conditions at that particular venue.
- Objects mounted on scaffolds can disrupt the scaffold's weight balance, making it unstable. Use counterweights or bracing if necessary.
- Scaffolds (or similar climbing structures) that are designed and constructed specifically as scenic units that will be visible to the audience must be included in a fall protection plan if they do not meet all legislated requirements. The scaffold must be marked "for performance only" and all workers must be informed as such.



scaffold in performance

Rigging—*OHS Code*, Part 21

Rigging is a practice as old as theatre itself—borrowed from Greek sailors, it was first used in the plays of Aeschylus, Euripides and Aristophanes. Rigging generally refers to anything that is used for attaching, supporting or flying stage effects. Today, theatrical rigging has grown to include complex and sophisticated flying systems with computer controlled automation and performers that soar effortlessly through the air. Rigging legislation applies to all types of rigging—it is not by any means theatre specific. Anyone who is responsible for any type of theatrical rigging must understand the *OHS Code* requirements before proceeding with any rigging work.

Rigging is one of the most dangerous fields in the entertainment industry. Flown scenery and performers—whether hoisted using automatic machinery or manual rigging—present hazards for:

- the rigger (musculoskeletal and other bodily injuries)
- the performer (fall injuries)
- any performers or crew onstage below (being crushed by falling scenery)
- the audience (being crushed by a performer, a set piece, etc.)
- other set pieces, furniture, stage floors and the rigging equipment itself

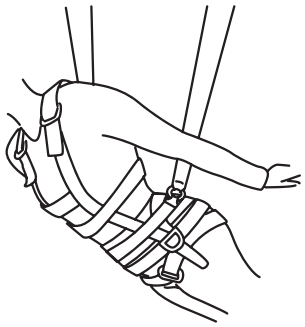
Best Practices

- As far as it is reasonably practicable, suspended loads must not be passed over workers (see section 69 of the *OHS Code* Part 6—loads over work areas—for more information). Workers must be effectively warned of the dangers arising from loads, such as flown scenery, suspended or moved above them. Riggers/operators must be aware if and when workers are underneath loads.
- Only properly trained and competent persons may be involved with the operation, testing and routine maintenance of rigging equipment and systems. All riggers must be deemed competent by their employer and to the satisfaction of the producing company and the venue. Riggers must be knowledgeable in safe operation and maintenance of the equipment and its safety devices, safe working loads, hazards during proper and improper operation and emergency procedures.
- The operation of all rigging equipment and systems, including chain hoists, trusses, etc., must meet with manufacturer's specifications and recommendations.
- Theatrical rigging systems should use "single-failure proof" designs—if one component of the system fails, it will not result in failure of the system.
- The safe working load (SWL) of a rigging system must never be exceeded.
- A single line set should not exceed a balanced load by more than 40-50 lbs.
- All rigging equipment and systems, including brakes and harnesses, must be inspected according to the manufacturer's specifications and removed from service based on the manufacturer's rejection criteria.
- The system designer and user must be satisfied that all connectors are capable of safely carrying the required loads and that any quick release system has a satisfactory, positive safety lock.
- The loading and unloading of counterweights should be done by two people.
- Chains or ropes must never be shortened by knotting.
- Packing must be used between slings and sharp edges.
- Steel slings should be used as a secondary for fiber slings if there is a risk of fire.
- Damaged or defective slings and ropes must be marked and removed from service.
- Pulleys, blocks, sheaves and drums must be designed in such a fashion as to prevent the rope from coming out of the groove and becoming jammed between the sheave/drum and side plate of the pulley or block. Installation and use of these items must take into account recommended fleet angles when the flying wires are subject to swing during operation.
- After installation, it is recommended that the entire system be proof tested to 1.5 times the designed SWL.
- Riggers must maintain control and visual contact with a moving piece at all times.

- Flown props and scenery that are used to fly a performer must be designed and manufactured by a qualified person. Initial operation must include a training process by the qualified person for both operators and performers.
- Any rehearsals in which flown props and scenery—or performers—is attempted must be clearly noted on the rehearsal schedule and callboard.
- Consideration of lighting, set or sound changes should be communicated to both riggers and aerial performers.

Best Practices for Flying Performers

- The design and installation of rigging systems for flying performers is a highly specialized area of rigging and should only be undertaken by experts in the field.
- Chain motors should not be used outside of manufacturer's specifications to fly performers.
- When flying performers, the SWL represents an active, dynamic load—not a static load.
- The operation of an unbalanced counterweight system may be required during the flying of performers. The system must always be operated within the manufacturer's guidelines and within the operator's ability to hold the out-of-balance load safely.
- All components of rigging used to suspend performers must have a minimum designed safety factor of 10:1.
- If cable or wire rope tracks are used for the transverse movement of a flying performer, they must be designed and rated specifically for the flying of performers and have a minimum designed safety factor of 10:1. This includes all load trolleys.
- Wire ropes to be used for flying wires should be sized depending on the weight to be lifted, the flying choreography (pendulums, somersaults, etc.), the number of wire ropes supporting the performer, the rigging method, the inspection schedule and other relevant factors—including the termination of the wire rope. Wire ropes must be labeled with the SWL.
- Where two or more flying wires are supporting the performer at all times, each wire rope must have a minimum designed safety factor of 5:1.
- Any performer being hoisted in the air must be wearing an appropriate harness according to manufacturer's specifications.
- The harness is part of the rigging—**not** part of the costume. Any costume elements worn over the harness must not impair the vision, mobility and/or safety of the performer.
- No part of the costume can be attached to the harness.
- No part of the harness can be cleaned, dyed, painted or marked with a substance that may degrade the strength and/or integrity of the harness materials.
- Performers on flying props must be secured to the prop by cables and harnesses.



body harness for fall protection

- The use of crash mats and safety netting should also be considered depending on the nature of the stunt/choreography.
- All aerial choreography should be rehearsed with the equipment as many times as necessary to render the flying effect reasonably safe.
- Rescue plans and procedures, i.e. how to rescue a suspended performer, should be developed specifically for the rigging system in use.

Tools, Equipment and Machinery—*OHS Code,* Part 25

Tools are used in all theatre departments, from industrial sergers and grommet machines in the wardrobe department to lathes in the props shop to various hand and power tools in the scene shop. Theatre technicians and craftspeople are notorious for their "creative" use of tools—and while there's always room for creativity, tools must be treated with respect.

Best Practices

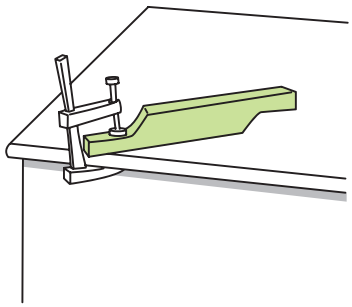
- Always follow the manufacturer's instructions and specifications, particularly regarding personal protective equipment required and/or suggested to operate the tool/equipment. Tools should not be used beyond their design capacity.
- Always select the proper tool for the job. Cutting discs must not be used for grinding or vice versa. Consider the use of alternative tools before committing to the use of explosive or compressed air tools.
- Maintain all tools in safe working order. Cutting tools should be maintained in a sharp condition and protected when not in use.
- Only trained and competent workers should operate tools (especially explosive powered tools).
- Always check for defects before using a tool. If a tool is defective in any way, do not use it. The defective tool must be locked out/disabled and tagged for repair.
- Ensure tools are clean. Greasy, wet, slippery or dirty tools must be cleaned before use.
- Manufacturer's specifications and instructions for all tools and equipment must be readily available to workers and should be kept well organized. Require workers to refer to this information before using the tool or equipment.
- Do not wear loose clothing or cuffs when working with tools. Neck chains are hazardous and should be worn under clothing. Rings are not recommended. Long hair should be tied back or otherwise confined. Hands must be kept free of oil and grease.
- Mark necessary safety zones around equipment and tools. Secure the work area with barricades and signs if necessary.

REAL LIFE CREATIVE SOLUTIONS

Challenge
Large pieces of Styrofoam needed to be carved for a production, and the scene shop was the only available and large enough space.

Solution
A containment area was set up using plastic sheeting wrapped and stapled around jacks to keep the majority of the styro beads and dust contained in a single area, away from spark creating tools and welding equipment. Nightly cleanup with spray bottles of water with a small amount of liquid fabric softener added helped to keep static to a minimum.

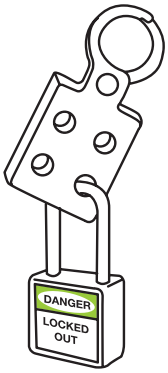
- Do not hold work pieces with your hands where there is a danger of the piece moving or slipping. Secure the piece with clamps or similar devices.
- All tools and equipment with moving parts must have proper guards with which they were manufactured and guards must be functioning properly.
- Explosive powered tools should be stored in locked boxes when not in use and explosive charges should be stored separately.
- At no time should discharge of compressed air come into contact with any part of the human body. Workers should not use compressed air to clean dust off of their clothing or bodies at the end of a shift.
- Tools must be stored appropriately when not in use.
- Do not distract people who are working with tools and machinery.
- Turn off and lock out tools and equipment, even when not in use for only a few minutes.



work piece secured with clamp to table

Managing the Control of Hazardous Energy (Locking Out)— *OHS Code,* Part 15

Managing the control of hazardous energy, or "locking out," is a way of protecting workers from injuries and/or electrocution. Locking out prevents an energy-isolating device such as a valve or circuit breaker from being accidentally or inadvertently operated while a worker is working on or inside machinery or equipment. In theatres, workers follow lock out procedures when doing such things as installing dimmers or making repairs to automated scenery.



lock out

Locking out is most commonly achieved by:

- securing a personal lock to an energy-isolating device, or
- rendering the machine or equipment inoperative by removing key parts (e.g. mechanical linkages, fuses, etc.) or blocking parts from moving (e.g. physically preventing the movement of rotating or moving parts)

Legislated Requirements

If equipment is to be serviced, repaired, tested, adjusted or inspected, an employer must ensure that no worker performs work on the equipment until it has come to a complete stop and:

- all hazardous energy is isolated by activation of a secured energy-isolating device, or
- the equipment is otherwise rendered inoperative in a manner that prevents its accidental reactivation

A worker must not service, repair, test, adjust or inspect equipment until they have tested the equipment to make sure that it is inoperative.

(continued)

A person must not remove a lock or other securing device from a piece of equipment unless they are the person who installed it. In emergency situations, an employer can designate a worker to remove a lock or other securing device once it has been verified that no worker will be in danger due to the removal.

Reference: *OHS Code*, Part 15

Best Practices

- Ensure all connecting energy sources are shut off and all stored energy is released before installing, maintaining or repairing machinery and equipment. Energy sources can be mechanical, hydraulic (fluids), electrical, pneumatic (air), gravitational, stored (spring) or radiant, and more than one energy source is often involved.
- Lock out equipment that has been identified as unsafe for use until replacement or repair is complete.

Powered Mobile Equipment (Vehicles)—*OHS Code,* Part 19

Theatre workers drive sets cross-country in large trucks, move heavy materials with forklifts, pick up and return audio and lighting gear from suppliers and go on tour in rented mini-vans to high schools and communities across the province.

Best Practices

- Maintain all vehicles in safe working order according to manufacturer's preventive maintenance schedules.
- Have regular vehicle inspections performed and documented by licensed automotive dealerships or recognized service facilities.
- Vehicles should be equipped with reflective warning triangles, first aid kit, cell phone, report forms for accidents, local maps, flashlight, blanket, ABC fire extinguisher, trunk tie down, windshield washer fluid and ice scraper/snow brush.
- Obtain copies of valid drivers' licenses and driving abstracts from all workers who are required and insured to drive company vehicles or transport other workers.
- Drivers for extended runs such as school tours should take a safe drivers' refresher course.
- Drivers should perform a visual pre-start inspection of the vehicle prior to each use. Pre-start inspections should include the following checks:
  - tire inflation, including spare
  - wheel bolts
  - fluids: oil, coolant, power steering, brake and wiper (check for levels and leaks)
  - lights: headlights, brake lights, signals and four-way flashers
  - brakes, including parking brake
  - belts and hoses
  - oil pressure

- doors, windows and mirrors
- gas cap secure
- wipers and sprayer
- horn
- seatbelts
- steering
- shocks
- engine
- idle speed
- license plates and insurance papers

Workers should immediately report and document any damage, problems or concerns regarding a vehicle to their employer.

Drivers should be responsible for adhering to all traffic laws, including ensuring seatbelts are worn by all passengers.

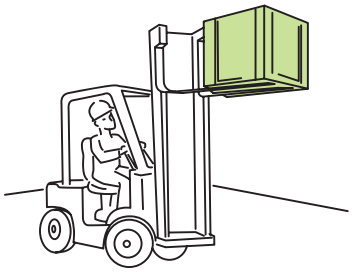
Vehicles should be shut off during loading and unloading. Properly restrain loads that could shift during transport.

Follow regulations outlined in *Transportation of Dangerous Goods Act* if transporting and/or shipping flammable, radioactive, chemically or biologically toxic materials.

Only competent and trained workers should operate forklifts. Employers should inspect and evaluate workers' performance in this regard.

Lifting and Handling Loads (Manual Materials Handling)— *OHS Code,* Part 14

From road crates to pails of paint, lighting equipment to rigging counterweights, fiberglass set pieces to drapery, heavy lifting is a necessary part of work in the theatre industry. For craftspeople, crew and performers, back injuries can be career-ending afflictions, and without proper care and knowledge, any lift could be your last.



forklift

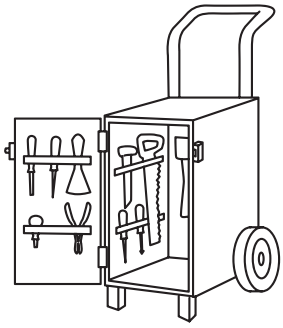
The lifting and handling of loads, also known as manual handling or manual materials handling, includes lifting, lowering, pushing, pulling, carrying, holding, dragging and supporting objects. The injuries caused by such work are referred to as musculoskeletal injuries (MSI). These are injuries of the bones, joints, ligaments, tendons, muscles and other soft tissues.

Best Practices

Reduce or eliminate heavy and repetitive lifting wherever possible.

Use lifting equipment such as carts, dollies, scissor lifts, pallet jacks, forklifts, etc.

Use mobile racks to avoid unnecessary loading and unloading.



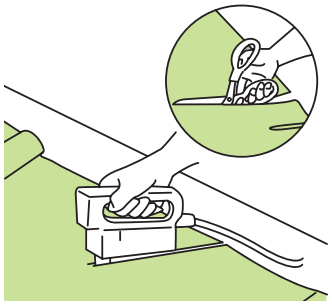
tool cart

- Modify the work process and workstation to reduce bending, twisting, reaching, heavy lifting, excessive forces and highly repetitive motions.
- Pushing and pulling is preferable to lifting and lowering. Pushing is generally preferred to pulling as the worker is able to use their body weight to apply force to the load.
- Train workers in proper lifting techniques and general back care/health.
- If materials must be manually handled, two person lifts are preferred.
- Provide handholds, cutouts, or grips so the load can be held as close to the body as possible. Change the shape of the object so that it can be held closer to the body.
- Avoid rotating or twisting movements when lifting or lowering a load.

Repetitive Strain Injuries

Repetitive strain injuries (RSI), injuries caused by overusing the musculoskeletal system through repeated movements, are an increasing concern in many workplaces and industries. RSIs can result from a number of different work conditions, including inadequate rest breaks, lack of job variation, fatigue, psychological pressures, poor workstation design, improper use of tools and equipment, returning too quickly to repetitive work after extended holidays or illness and increases in workload and/or hours. In the theatre, administrators, stage managers, designers and board operators who spend long hours at computerized workstations are at risk, as well as craftspeople who stand, sew, paint, build, etc. for extended periods of time.

Symptoms of an RSI include dull aches or numbness (which may worsen at night), tingling/burning sensations, swelling (including cyst-like swellings), dry palms, clumsiness, muscle weakness, muscle spasms, restricted joint movement or cracking. In the early stages of an RSI, the worker may experience aches or fatigue when performing his/her work, but the injury does not interfere with the worker's ability to do the work, and symptoms disappear when the work is finished. An RSI can heal completely if treated in its early or intermediate stages.



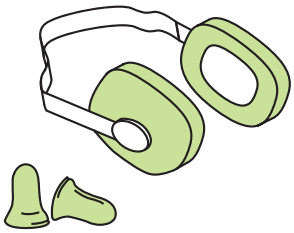
electric scissors designed to reduce RSI hazard

Best Practices

- Employers should assess all tasks performed by workers for RSI hazards, and modify work environments and conditions to eliminate and/or control identified hazards.
- Good job design—fitting tasks to the physical and mental needs of workers—can limit worker exposure to RSI hazards. Elements of job design include:
  - task variety
  - work pace
  - work breaks (time between tasks that allow for changes in position)
  - rest breaks (time when workers stop working and leave their workstation)
  - adjustment periods (returning to work after extended absence/illness)
  - training and education of current and new workers

- Workers should avoid remaining in one position for long periods of time. Alternate between sitting, standing and walking if possible.
- Workers should adjust chairs, computer equipment and work surfaces to ensure they are working in an ergonomically correct position.
- Accessories such as document holders, footrests, telephone headsets and anti-fatigue floor mats/duck boards should be provided for and used by workers when necessary.

Noise in the Workplace—*OHS Code,* Part 16



hearing protection

Common sources of hazardous noise in the theatre industry include sound cues and special effects, pyrotechnics, gunshots, live music, feedback, shop noise/tool noise, etc. Everyone in the industry, from sound designers and audio technicians to performers/musicians, crew and carpenters, needs to be aware of the dangers of excessive noise and know how to protect themselves from hearing damage. Hearing damage is both cumulative and permanent, and its effects often go unnoticed until loss of hearing occurs in the speech range.

Legislated Requirements

- Employers must ensure that workers are not exposed to noise levels that exceed the occupational exposure limit (OEL) of 85 dBA Le_X.
- If workers are exposed to noise environments that exceed the OEL, the employer must develop and implement a **noise management program** that measures and monitors sound levels in the workplace and educates workers.
- Use appropriate equipment for measuring sound levels as required by Part 16 of the *OHS Code*.

The Occupational Exposure Limit (OEL) defines a worker's maximum permitted daily exposure to noise without hearing protection. The OEL takes into consideration the loudness of the noise—measured in decibels (dBA)—and the duration of exposure to that noise—measured in hours per day. Le_X refers to the worker's level of total exposure to noise in dBA, averaged over the entire work day and adjusted to an equivalent 8-hour exposure.

Reference: *OHS Code*, Part 16

Schedule 3, Table 1 of the *OHS Code*: Occupational exposure limits for noise	
Exposure level (dBA)	**Exposure duration**
82	16 hours
83	12 hours and 41 minutes
84	10 hours and 4 minutes
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	8 minutes
106	4 minutes
109	2 minutes
112	56 seconds
115 and greater	0

Note: Exposure levels and exposure durations to be prorated if not specified.

Reference: *OHS Code*, Schedule 3

Best Practices

Measure and monitor noise levels in all work areas and estimate duration of worker exposure.

Noise assessments need to be done (or repeated) at the following times:

- when new noise-generating equipment or work processes are introduced
- if old equipment seems to get louder over time
- when work practices and/or work procedures change
- if workers complain of ringing in the ears, temporary changes in hearing or increased levels of noise in their work area
- if two people have difficulty communicating or have to significantly raise their voices when standing 2m apart in order to be heard over background noise
- as part of production planning and design, and during the production process, especially if a special sound or pyrotechnic effect is added
- in workplaces where noise management programs are in place, the program should be formally assessed annually

- Whenever practicable, worker exposure to noise levels over 85 dBA should be eliminated.
- Reduce noise by replacing or servicing noisy equipment, modifying work procedures, establishing control zones, dampening and/or baffling.
- Limit worker exposure to noise. Ensure workers exposed to noise have frequent, quiet breaks.
- Particularly loud sound cues and pyrotechnic effects should be carefully considered. If such effects are approved, they should be integrated slowly into the rehearsal process and performers and running crew at risk of exposure should be provided with proper hearing protection.
- Similar to the practice of calling "going to black" before a blackout, workers should be audibly warned prior to impending noise.
- Reduce surface/floor contact of speakers and monitors. This will decrease low-end frequencies, so the overall sound level will not need to be as high.
- Workers should not be exposed to the backs of open speaker enclosures.
- Monitor background music—it should not impede communication or delay progress, provide a distraction or combine with any other noise to create hazardous noise levels.
- Conduct audiometric tests for workers—workers' hearing needs to be tested to determine the extent of any existing hearing loss and to monitor for ongoing changes in hearing ability. A certified audiometric technician must perform the tests. Results from all worker hearing tests should be documented and kept in a confidential file.
- Be aware of ear fatigue. Concentrated listening can be as physically demanding as manual labour, and after many hours, ears and mental capacity (concentration and judgment) can become as tired and strained as any muscle. When/if ear fatigue sets in, the best response is to stop or take a long break.
- Educate and train workers regarding hearing damage and loss.

REQUIREMENTS UNDER THE *FIREARMS ACT* FOR STAGE PRODUCTIONS

Weapon	Licence Requirement—Business	Licence Requirement—Workers	Registration Requirement
Non-Restricted Firearms	Firearms Business Licence	Possession and Acquisition Licence (PAL) valid for non-restricted firearms	Yes
Restricted Firearms	Firearms Business Licence	PAL valid for restricted firearms	Yes
Prohibited Firearms	Firearms Business Licence allowing possession of prohibited firearms for an approved purpose (e.g. stage or film production)	PAL valid for restricted firearms (workers would not be eligible for a PAL for prohibited firearms, but would be allowed to handle prohibited firearms for lawful employment purposes)	Yes
Prohibited Weapons other than Firearms (e.g. some martial arts weapons)	Same as above	No, but must be eligible – i.e. no court orders prohibiting the worker from possessing weapons; no significant public safety concerns, such as recent criminal offences or serious mental health or substance abuse issues	No, but the business may be required to keep records as a condition of their licence
Prohibited Devices, such as replicas	Same as above; some exceptions apply for replicas under Special Authority to Possess Regulations if the company only borrows the replicas	Same as above if the company owns the replicas	Same as above

For more information, visit the Canada Firearms Centre at **www.cfc-cafc.gc.ca**.

Chapter Three

CHEMICAL HAZARDS

In This Chapter

- Workplace Hazardous Materials Information System (WHMIS)—*OHS Code* Part 29
- Open Flame
- Atmospherics (Smoke and Fog)

Appendix Items

- Drapery Test Form—
  courtesy of the EPCOR CENTRE for the Performing Arts
  www.epcorcentre.org

Workplace Hazardous Materials Information System (WHMIS)— *OHS Code*, Part 29

The Workplace Hazardous Materials Information System (WHMIS) is a comprehensive national program that provides information on the safe use of hazardous materials ("controlled products") in Canadian workplaces. The information is provided by means of:

1. Product labels (supplier and/or workplace labels)
2. Material Safety Data Sheets (MSDSs)
3. Worker education programs

Controlled product is the name given to products, materials and substances that are regulated by WHMIS legislation. The WHMIS classification system groups products with similar properties or hazards. All controlled products fall into one or more of six WHMIS classes:

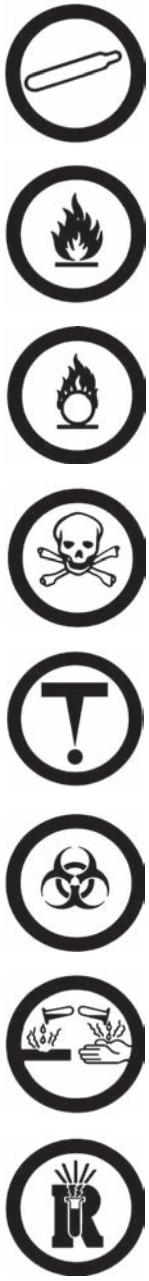
1. Compressed Gas
2. Flammable and Combustible Material
3. Oxidizing Material
4. Poisonous and Infectious Material
5. Corrosive Material
6. Dangerously Reactive Material

Controlled and/or hazardous products are commonly found and used in many areas of theatre. Some examples include:

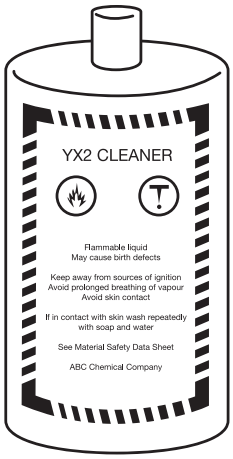
- maintenance — cleaners, asbestos
- props — paints, resins, adhesives, fiberglass, lubricants, barge, vacuform, two-part foams
- scenic art — paints, lacquers, stains, solvents
- scenic construction — adhesives, welding gases, dusts from lumber (can be carcinogenic or contain arsenic, styrene or formaldehyde)
- stage crew — atmospherics (fog, smoke products), compressed air, solder
- wardrobe — dyes, shoe sprays and polish, adhesives, laundry products, dry cleaning fluids, pigments, glues, bleach, aerosol hairsprays, self-tanners

Every product and material controlled by WHMIS must be accompanied by its own Material Safety Data Sheet (MSDS). MSDSs must not be more than three years old. The MSDS must include:

- the potential health effects of exposure to the product
- how to work safely with the product
- hazard evaluations on the use, storage and handling of the product
- personal protective equipment needed
- emergency procedures related to the product



WHMIS symbols



product with WHMIS label

Legislated Requirements

Suppliers (those who sell or import products) must:

- Label the product or container.
- Provide MSDS to customers.

Employers must:

- Establish education and training programs for workers exposed to hazardous products in the workplace. WHMIS training is available through many different organizations or training can be conducted at the workplace, either with a printed package or using computer-based training programs.
- Ensure products are labeled.
- Ensure a current MSDS for each product is readily available to workers.
- Post WHMIS and MSDS information in a visible area at the worksite and make copies available to any worker who requests them.
- Familiarize themselves with all known biological and chemical hazards associated with a given product—including its potential reactive capabilities when combined with or stored near other products—as well as that product's individual ingredients.

Workers must:

- Participate in training.
- Apply safety practices they have learned when working with hazardous materials.
- Inform employer of missing labels.

Reference: *OHS Code*, Part 29

The Occupational Exposure Limits (OEL) for hazardous substances are listed in the *OHS Code* and are based on the duration of exposure as well as the concentration of the contaminant. These OEL apply to both workers directly involved with tasks using hazardous substances and workers who may be exposed to the substances indirectly from these operations. OEL represent standards to protect the healthiest workers over an eight-hour workday, in a 40-hour week.

Best Practices for Purchasing Controlled Products

When purchasing products, consideration must first be given to less hazardous or non-toxic alternatives. Substitution is usually more cost effective than engineering controls.

Ensure all controlled products are labeled and accompanied by an MSDS at the time of purchase.

All original MSDSs should be inventoried and kept in a central library, with notes indicating which department will be using and storing the product. Production managers are good candidates for this responsibility.

Copies of MSDSs should go with the product to the department or worker who will be using and storing the product.

It is important to keep an up-to-date library and inventory of all controlled products.

- Ensure that products are approved by municipal wastewater and other bylaws.
- MSDS information for many products used in the wardrobe, scenic art and props departments, as well as for products used to create smoke and fog effects, is protected through trademarks or copyrights. Manufacturers only have to supply the names of hazardous chemical ingredients as deemed by the government; they are not required to declare the complete ingredients list. Whenever practicable, use products that are accompanied by complete MSDS information.

Best Practices for Material Safety Data Sheet (MSDS) Libraries

- WHMIS requires that all MSDSs be no more than three years old.
- Expired MSDSs should be reported immediately to the person responsible for the library.
- The master MSDS library should be kept in the office of the production manager or the person who is responsible for ensuring that the library is kept up-to-date.
- Complete MSDS libraries should be available in all locations where controlled product is used and stored. Suggested locations include scenery shops, props shops, wardrobe shops, technical directors' offices, etc.

Best Practices for WHMIS Training

- All workers, including volunteers, who work with or in proximity to hazardous materials should receive WHMIS training. Depending on the size and structure of your theatre company, you can set up WHMIS training onsite for workers or require workers to seek training themselves and provide proof of completion.
- Do not allow workers to use any hazardous materials unless WHMIS training has been completed and the worker is fully knowledgeable about a product's potential hazards, safe handling requirements, first aid requirements, personal protective equipment requirements, proper disposal and spill handling techniques as outlined in its MSDS.
- Offer and review training annually. Keep written records of training on file.

Best Practices for Use and Storage of Controlled Product

- Store all controlled product according to manufacturer's specifications. Use fire cabinets where appropriate and necessary.
- Make sure that all product containers have either a supplier label or workplace label. Always make sure to add a workplace label to a container:
  - when transferring product from one container to another, if someone will be using the product other than the person who transferred the product
  - when adding controlled products to other products (e.g. when adding colourants, metallic pigments, solvents or drywall fillers to latex paint)
- Never smell a container to determine its contents.

- Remove all potential sources of ignition before starting work with controlled substances that pose a fire or explosion risk. This includes naked flame, cutting and welding torches, gas fired heaters, portable lamps and any material that may give off sparks—whether electrical, mechanical, friction or static. Post "No Smoking" and "No Welding" signs.
- Make sure approved respirators, eye protection and any other protective equipment required for the job are worn.
- Use good hygiene practices:
  - workers should not eat, drink or smoke where work is taking place
  - workers should wash hands and face thoroughly before eating, drinking or smoking
  - clean up spills promptly and properly
  - clean clothing, brushes, etc. thoroughly
  - ensure materials are disposed of properly
- Ensure unprotected workers and visitors do not enter work areas where controlled product is used.
- Subcontract dyeing work if you do not have the appropriate facilities.
- Rotate workers through jobs to decrease exposure to controlled products.
- Give workers with high exposure times to controlled products extra breaks.

Best Practices for Painting

- Painters need to be particularly aware of the hazards of working with:
  - silica—found in concrete and fillers/stuccos
  - chromium—a metal found in pigments
  - lead—a metal found in pigments and old paints
  - propylene glycol—common solvent found in most paints, especially water-based paints
  - iron oxide—found in pigments/paints
  - isocyanates—aerosols and vapours from polyurethane paints and varnishes; two-part foams; found in some adhesives
  - solvents—the most common hazardous product used in painting; found in paints, inks, varnishes, shellacs, lacquers, waxes and fixatives and may be used to thin and clean up materials; includes turpentine, paint thinner, mineral spirits, methyl alcohol, ethyl alcohol, acetone, toluene, xylene, ethyl and other acetates and petroleum distillates, as well as benzene and styrene
- Ventilation systems should be implemented in any area where paints are used or stored. Ventilation systems include both local exhaust ventilation (spray booths, fume hoods, etc.) and dilution ventilation (fans).
- Check ventilation systems to make sure they are on and working correctly before painting.
- All spray operations must be done in an enclosure, spray booth or outdoors. Post signage nearby to warn others.

wear an approved respirator when spray painting (illustration courtesy of SHAPE)

- For spray booths:
  - ensure the amount of ventilation required is properly assessed
  - ensure the ventilation systems installed are properly designed and maintained
  - train workers to properly operate and maintain installed ventilation systems
  - provide appropriate personal protective equipment, including respirators
- Electrically ground all spraying equipment.
- Do not use conventional sprayers for small jobs.
- Roll paint when possible.
- Use rollers with long handles to increase distance from products.
- Use dilution ventilation (fans) for large sets that cannot be painted in spray booths.
- For respirators:
  - determine oxygen concentration in the air
  - determine the physical form of the contaminant
  - determine the Occupational Exposure Limit (OEL) for the contaminant and its concentration in the air
  - consider the length of time the respirator will be needed
  - know the toxic properties of the contaminant
  - train workers in how to detect the contaminant
  - address the need for emergency escape
  - proper respiratory protection equipment fit testing is essential

REAL LIFE CREATIVE SOLUTIONS

Challenge
A set design included several tall set pieces and backdrops that needed to be treated with paint.

Solution
The scenic carpenters and scenic artists developed a plan together before construction began that allowed the set and backdrops to be built in smaller pieces and assembled after painting, so that the painters did not have to work from ladders, scaffolds, etc.

Open Flame

Best Practices

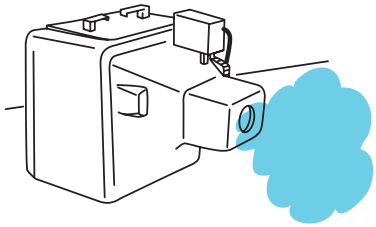
- Always consider alternatives to open flame wherever possible.
- In accordance with Section 2.4.3 (Open Flames) of the *Alberta Fire Code*, the fire authority having jurisdiction (AHJ) must approve all use of open flame on stage. This includes the use of candles and cigarette smoking. The AHJ can insist that an officer, such as a Fire Marshall, be present during any use of open flame in rehearsal or performance.
- If the use of open flame on stage is approved by the AHJ, designate a competent and trained worker to watch the flame and ensure due diligence with respect to fire extinguishers, workers with fire extinguisher training and emergency evacuation procedures.
- Open flame must only be incorporated into a production under strictly controlled conditions.
- If a production uses open flame, all costumes, wigs, props, set pieces and drapery near the flame should be made of flame-resistant materials or treated with flame-retardant. Section 2.3.2 (Flame Resistance) of the *Alberta Fire Code* requires that drapery, curtains and other decorative materials used in theatres meet specific flame-resistant requirements.

- Flammable and combustible materials must be properly stored and marked, and kept at a safe distance from open flame.

See Part One: Health and Safety in the Theatre, Chapter Seven: Emergency Response Planning for more information.

Atmospherics (Smoke and Fog)

Atmospherics refers to anything that falls or rises through the air—fog, haze, smoke, bubbles, simulated snow, etc. Theatrical smoke is produced by burning or fuming a material, and is composed of solid particles. Theatrical fog is produced by heating or cooling a chemical, and is composed of liquid droplets. **The use of theatrical fogs is generally preferred to smokes.** There are a wide variety of commercial (and homemade) products and machines used to create these effects, with varying degrees of hazards.



peasouper—common fog production equipment

Common Types of Theatrical Fog and Smoke Products

- dry ice—generally considered the safest method of producing theatrical fog
- glycol-based products—mixtures of water and polyfunctional alcohols; propylene glycol and butylene glycol are the least hazardous of these products available
- oil- or petroleum-based products
- chlorides—ammonium chloride (Sal Ammoniac Powder) and zinc chloride (used in smoke cookies, smoke pots, smoke candles, smoke bombs, etc.); only ammonium chloride is recommended
- organic materials—frankincense, paper, rosin, charcoal, tobacco, rubber, etc. (these smokes are irritating and generate carbon dioxide, carbon monoxide and other toxic gases, vapours and/or fumes)
- A/B (Acid and Base) Smoke—highly irritating and toxic; potential fire hazard; use is not recommended

Best Practices

- Carefully research available/appropriate atmospheric products and production methods in consideration of the effect you want to achieve. Consider factors such as number of workers/patrons who will be exposed to the effect, length of exposure time, the venue airflow patterns, available storage facilities, skill of technicians who will operate the effect, etc. Select the least hazardous product with the simplest and most consistent method of production.
- Determine if the effect requires approval from the AHJ.
- All fogs and smokes are easily inhaled and can cause irritation to people with respiratory sensitivities. Additionally, some products/chemicals used to generate fogs and smokes are toxic and should only be handled by competent, trained workers.
- Only use fog and smoke products accompanied by MSDSs that meet all WHMIS requirements. MSDSs should clearly identify the chemical ingredients present as well as their potential hazards and necessary precautionary measures.

- Ensure inhalation hazards, not just ingestion hazards, are listed.
- Be aware of long-term exposure hazards to products/chemicals. Many products have been tested for acute, short-term toxicity only.

All workers should be informed in advance of the intention to use fog or smoke materials in a production and the type to be used. MSDSs must be made available and posted on the callboard. Workers must be given instruction/training in the safe handling and use of the products.

Only obtain and use commercially manufactured fog and smoke products and equipment, and always use, store and maintain these items in strict accordance with manufacturer's specifications.

Do not alter fog and smoke products in any way, for example by adding dyes, fragrances or additional chemicals. Coloured fog can be achieved using coloured light.

Care must be taken to avoid contamination of fog and smoke products, particularly from improperly cleaned and/or maintained storage containers or production equipment.

Ensure a rigorous maintenance and cleaning schedule of fog and smoke production equipment.

Use the minimum concentration of product for the minimum period of time necessary for the effect.

Know the occupational exposure limit (OEL) of the product being used.

Carefully monitor and control exposure levels. All efforts and controls used to ensure a low exposure environment/atmosphere should be documented.

- Depending on the product and production method in use, appropriate means for monitoring exposure levels may include: calculating time-weighted average exposure levels; determining peak exposures by means of time/distance aerosol concentration tables; a combination of peak and time-weighted average exposure levels; or contracting a Certified Industrial Hygienist to conduct atmospheric sampling and testing.

When using a product that may cause an oxygen-enriched or -deficient atmosphere to develop, measures must be in place to monitor the amount of oxygen in the atmosphere and to take immediate corrective actions if necessary.

Fog and smoke machines/equipment should be placed where operators can access them at all times, and where they will not create additional hazards, such as fire hazards.

Operators must be acutely aware of and carefully monitor airflow patterns in the venue and minimize the movement of fog or smoke where it is not needed. Particular attention should be paid to ensuring exits, warning signs and hazards are not obstructed by fog or smoke, and that accidental activation of the venue's fire alarm system does not occur.

Operators should ensure measures are in place for exhausting fog and smoke from the stage, backstage and house after the effect. Always exhaust away from the audience and the orchestra pit.

REAL LIFE CREATIVE SOLUTIONS

Challenge
Design an effect that would create a puff of dust when a stick was banged on the ground.

Solution
Many experiments were done with various substances. While fireplace ash was the director's favourite, research indicated that ash is caustic, so a mixture of carob and kelp (both food products) was settled on.

- Respirators with appropriate filter cartridges should be available for any worker who needs or requests one.
- Special consideration should be given in situations where productions involve strenuous physical activity and singing, as well as live musicians, as deep breathing increases inhalation hazards. In addition, children, the elderly, people with respiratory problems such as asthma, pregnant women and people with serious illnesses are at increased risk of complications caused by atmospheric products.
- Post warning signs at audience entry points to the theatre. The Entertainment Services and Technology Association's American National Standard E1.14—Entertainment Technology Recommendations for Inclusions in Fog Equipment Manuals—recommends the following: "This production includes an AEROSOL SIMULATED FOG EFFECT. This fog is intended for public performance, but persons who are asthmatic or who suffer from allergies should identify themselves to house personnel so that they may be seated where there is the least possibility of discomfort."
- Individuals who experience adverse reactions to fog and smoke exposure should be immediately removed to a well-ventilated area and the designated first aid provider should be notified.
- Many products condense and create slippery conditions on the stage floor and other objects. Ensure performers and crew have appropriate footwear and use extreme caution in these situations.

For additional information, consult:

- National Fire Protection Association (NFPA) 160: Standard for the Use of Flame Effects Before an Audience—2006 Edition
  www.nfpa.org
- American National Standard E1.5 – 2003: Entertainment Technology Theatrical Fog Made With Aqueous Solutions of Di- and Trihydric Alcohols
  www.ansi.org and **www.esta.org**
- American National Standard E1.14 – 2001: Entertainment Technology Recommendations for Inclusions in Fog Equipment Manuals
  www.ansi.org and **www.esta.org**
- American National Standard E1.23 – 2006: Entertainment Technology Design and Execution of Theatrical Fog Effects
  www.ansi.org and **www.esta.org**
- *Introduction to Modern Atmospheric Effects, 4th Edition*. Entertainment Services and Technology Association. 2005.
  www.esta.org
- *Atmospheric Effects in the Entertainment Industry: Constituents, Exposures and Health Effects*. UBC School of Occupational and Environmental Hygiene. March 2003.
  www.shape.bc.ca

(Theatre Company)

DRAPERY TEST FORM

This document is intended to provide proof that annual testing of stage drapery has been completed as per 2.3.2.2 of the *Alberta Fire Code*.

Background

Fireproofing applied to stage drapery has a life span determined by many factors: initial chemical and application process, cleanliness of the soft goods, humidity, storage, etc. Some fireproofing is still viable after 25 years, most is not. To determine fireproofing viability, some jurisdictions (mostly in the US) require an annual inspection by an outside agent. Rather than utilizing an outside agent we will follow testing procedures and guidelines set by the National Fire Protection Association to create a set of best practices for demonstration to local authorities and to our insurers of our compliance.

The Procedure

Initially, to create a starting point for the log book, all of the drapes will be tested. In the log book will be the date of purchase of the goods and the initial certificate of fireproofing. This will be the start of the history for each piece. After initial testing, we will subsequently do annual testing of two items as outlined below.

During the pre-season annual maintenance period, two pieces of fabric (one from a border and one from a leg) will be tested as per the test procedure outlined below. If either test fails then all of the soft goods in the theatre must be tested. Any drapes that have failed will be removed from service until refireproofed and retested. If all tests pass, the individual conducting the test will sign off on the testing form and forward a copy, along with the samples tested, to the production manager.

The Test

The purpose of this recommended practice is to provide authorities having jurisdiction with a field means of determining the tendency of textiles and films to sustain burning subsequent to the application of a relatively small open flame.

The field test method can be useful to regulatory officials as an indicator of whether a material being used or installed burns very easily or can be flame resistant as indicated by the following:

(1) Cessation of burning when the igniting flame is removed
(2) Failure to burn at all
(3) Continuing to burn non-aggressively after igniting flame is removed

The field test method has utility only when the authority having jurisdiction has no reliable data and, therefore, is forced to rely solely on the field test findings.

note: This information was taken from NFPA 701 and NFPA 705. These documents can be purchased from the NFPA website at **www.nfpa.org.**

Materials

Specimens should be samples removed from the existing material. Specimens should be dry and should be a minimum of 12.7 mm x 101.6 mm (1/2 in. x 4 in.).

Open Flame

The fire exposure should be from a common wood kitchen match or source with equivalent flame properties. The flame should be applied for 12 seconds.

Method

The test should be performed in a draft-free and safe location free of other combustibles.

The sample should be suspended (preferably by means of a spring clip, tongs, or similar device) with the long axis vertical, the flame supplied to the center of the bottom edge, and the bottom edge 12.7 mm (1/2 in.) above the bottom of the flame.

After 12 seconds of exposure, the match is to be removed gently away from the sample.

Requirements

During the exposure, flaming should not spread over the complete length of the sample or, in the case of larger samples, in excess of 101.6 mm (4 in.) from the bottom of the sample.

There should be not more than 2 seconds of after-flame.

Materials that break or drip flaming particles should be rejected if the materials continue to burn after they reach the floor.

Limitations

The deficiencies and limitations of the field test method can lead to misleading or erroneous results, and the error can be in both directions. It is quite possible to have a too-small sample show several seconds of after-flaming, causing the material to be rejected. It is equally possible for improper or inadequate field procedures to incorrectly indicate satisfactory flame resistance. This can result in dangerous errors.

Precautions

Field procedures are useful, but they must be used with good judgment and their limitations should be recognized. Field tests should not be relied on as the sole means for ensuring adequate flame resistance of decorative materials. They are, however, useful in augmenting a comprehensive regulatory program.

FURTHER INFORMATION AND FREQUENTLY ASKED QUESTIONS

What needs to be treated?

The NFPA regulations apply to decorative material in all public buildings including theatres, public halls, department stores, hotels, buildings used for public assembly or amusement, and schools.

How often does this need to be done?

In NY and Seattle city law, affidavits of fireproofing are valid for one year, after which time the material needs to be tested. If the fabric is still flame resistant, the affidavit can be renewed for another year. In NYC after a total of three years, the fabric must be treated again. In addition, excess movement and handling, washing, dry-cleaning or painting will affect the flame retardancy of the material and may make additional treatments necessary. Your municipal or provincial standards may be different.

What are the guidelines for treatment?

The NFPA has set guidelines for the fire protection of all fabrics. These guidelines are known as NFPA 701 and are interpreted by each municipal fire department.

Can all materials be treated?

No. Certain synthetics will not hold the chemical. Also, there is a possibility the flameproofing compound will affect the color or quality of some delicate fabrics.

What about inherently flame retardant materials?

If your curtains are made of a fabric that is certified as inherently flame retardant there should not be a need to treat the curtains. However, you must have an original affidavit from the curtain manufacturer on file that states the material is IFR. If this is not the case your curtains may need to be tested in order to have a new affidavit issued.

Are the chemicals dangerous?

No. The chemicals can be non-toxic and odorless. The chemical may drip slightly when drying. It is recommended that drapes dry for at least 12 hours after treatment. Vendors need to supply Material Safety Data Sheets on all products used.

Can I treat applicable materials myself?

Yes and No. You can treat many items yourself. Several vendors can supply the chemicals and sprayers for flameproofing, but by law, they cannot issue an affidavit or certificate of fireproofing. If your fire department requested a legal affidavit of flameproofing you will need to hire a professional flameproofing contractor to conduct the treatment.

THE FORM

On _____ (date), I, _____ (name), tested the following samples:

Sample #1 taken from _____.

Sample #2 taken from _____.

Both of the pieces passed the outlined procedures and are attached to this document. This inspection will need to be done again in one year!

_____ _____

Signature of Theatre Representative | Date of Report

Sample #1 **Sample #2**

Chapter Four

BIOLOGICAL HAZARDS

In This Chapter

- Communicable Diseases—*OHS Code* Part 35
- Mould

Appendix Items

- SHAPE Safety Bulletin #32B—Food Safety
  Ministry of Health—Health File #59—Ten Easy Steps to Make Food Safe—
  courtesy of Safety & Health in Arts, Production and Entertainment (SHAPE)
  www.shape.bc.ca

Biological hazards in the theatre industry exist largely, although not solely, in the wardrobe and makeup departments. Sharps injuries from sewing needles, communicable and infectious diseases and exposure to mould are the most common biological hazards in theatre.

Of biological hazards identified for theatre, only sharps have legislated requirements in the *OHS Code*. Best practices for all biological hazards include limiting workers' exposure to the hazard, practicing proper hygiene to protect public health, and reporting infectious or communicable diseases.

Communicable Diseases—*OHS Code,* Part 35

Communicable diseases include a broad spectrum of diseases, including airborne diseases, blood-borne pathogens and vaccine-preventable diseases. The severity of communicable diseases ranges from the common cold and gastrointestinal illness to hepatitis and HIV viruses.

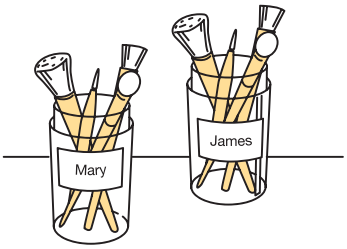
Legislated Requirements

- Employers must provide sturdy/puncture-resistant sharps containers with a clearly defined fill line. Sharps containers must be located as close as reasonably practicable to where sharps are used.
- Employers must establish policies and procedures for the storage, handling, use and disposal of biohazardous materials and inform workers of the health hazards of biohazardous material with which they may come into contact.
- Employers must establish policies and procedures for the post-exposure management of workers exposed to biohazardous material.

Reference: *OHS Code*, Part 35

Best Practices

- Costume departments should contain sharps containers for sewing needles.
- Sharing of water bottles is not recommended. Theatres should provide and label individual bottles or cups for performers.
- Train workers in proper hand hygiene. Costumers and makeup artists should wash their hands frequently and thoroughly when doing laundry and applying makeup. Nitrile gloves should be worn if potential exposure to blood or other bodily fluids exists.
- Proper labeling of costume articles, especially undergarments and hosiery, is important to prevent cross-contamination between performers.
- Frequent laundering of costumes (every two to three performances) minimizes hygiene hazards for both performers and costumers doing laundry. Consider doubling costume pieces that require frequent laundering.
- Use "pit pads" for performers who sweat heavily—recycled shoulder pads sewn into the armpits of undershirts, shirts, etc.



personal makeup applicators

- Cosmetics, including street makeup and other skin products, should only be used and applied in accordance with manufacturer's instructions.
- Use disposable makeup applicators whenever possible. Non-disposable applicators should not be shared between performers and must be effectively sterilized after each use.
- Do not share containers of any form of cosmetic (skin, eye or mouth). Divide product into personal/labeled containers or scoop a small amount of product onto a wooden spatula before applying it to the subject's skin. The wooden spatula and any surplus makeup product on the spatula should be disposed of and not used again.
- Avoid the sharing of towels. Use individual towels or disposable towels.
- If an individual with obvious skin, eye or mouth infection has to be made up, the makeup artist must use only disposable applicators and wash his/her hands after completing the makeup before moving on to another subject.
- Hair combs/brushes and wigs should be sterilized between subjects.

Mould

Mould is naturally occurring and most workers stay healthy when exposed to background levels of mould. However, abnormally high levels of mould can cause mould-related illness.

Best Practices

- Costumes should be allowed to dry completely following performances and laundering.
- Workers should report any mould-related work area concerns.

SHAPE SAFETY BULLETIN #32B

(Safety & Health In Arts Production & Entertainment)

ADDENDUM B - FOOD SAFETY

Ministry of Health – Health File # 59 - Ten Easy Steps to Make Food Safe

Serious cases of food poisoning can result in prolonged sickness and even death. All of these illnesses and deaths can be prevented by following ten simple safety rules:

1. **COOL IT!**
   a. Don't leave food to cool on the counter for longer than 2 hours.
   b. If you're going to save cooked foods, separate large items, such as roasts or soups, into portions no more than 3 inches thick and place in the refrigerator or freezer within 2 hours.
2. **REHEAT PROPERLY**
   a. Food should reach at least 74° C (165° F) when re-heated.
   b. Make sure this temperature is reached by using a meat thermometer.
   c. Do not reheat your leftovers more than once!
3. **MICROWAVE COOK CORRECTLY**
   a. Microwaved foods need to be heated at least 14° C (25° F) higher than that recommended for conventional heating.
   b. Microwaved foods need to be covered, stirred or rotated at least once midway through cooking to improve heat distribution.
   c. Food reheated in microwave ovens should reach 88° C (190° F) and be allowed to stand covered for two minutes after heating.
4. **AVOID THE DANGER ZONE!**
   a. Potentially hazardous foods (e.g., meat, poultry, dairy products, eggs) must be kept hotter than 60° C (140° F) or colder than 4° C (40° F).
   b. Don't leave food to thaw on the counter. Always defrost foods in the refrigerator, under cold running water, or in the microwave.
5. **PROTECT FOODS**
   a. Wrap raw meats at the store so they don't drip on your other foods.
   b. Transport and refrigerate perishable food as quickly as possible to limit the growth time for harmful bacteria.
6. **WASH HANDS**

a. Proper handwashing practices are essential after using the washroom, before putting anything in your mouth, and before handling food, particularly ready-to-eat food.

b. Handwashing includes vigorous rubbing of soaped hands for at least 20 seconds with particular attention to the areas under the finger-nails and between the fingers.

7. **WASH AND SANITIZE FOOD CONTACT SURFACES**

a. Cutting boards, plates, and utensils must always be washed and sanitized immediately before ready-to-eat foods are placed on them.

b. Dishcloths must be well washed and sanitized between uses.

c. Make a sanitizing solution by mixing 1/2 ounce (1 tablespoon) of 6% household bleach into one gallon of water, or a teaspoon of 6% bleach into a litre of water.

8. **WASH FRESH FRUIT AND VEGETABLES**

a. Always wash fresh fruits and vegetables thoroughly.

b. Pay particular attention to fruits and vegetables that will be served raw, and fruits that do not have their peel removed before eating.

c. Contamination on the outside of rind fruits (like watermelon, cantaloupe, and honeydew melon) can be transferred to the inside of cut fruit by the cutting knife.

d. Refrigeration of melons after cutting is highly recommended.

9. **EXCLUDE SICK PEOPLE**

Any person who has symptoms of diarrhea or vomiting, or has infected cuts or sores, should not be allowed to handle food in any way.

10. **IF IN DOUBT, THROW IT OUT!**

Don't take chances with your food. If in doubt, throw it out!

Contact SHAPE: 280 - 1385 West 8th Ave, Vancouver, BC V6H 3V9
Tel: 604-733-4682 Fax: 604-733-4692 Email: info@shape.bc.ca Website: www.shape.bc.ca

Chapter Five

PSYCHOSOCIAL HAZARDS

In This Chapter

- Working Alone—*OHS Code* Part 28
- Violence—*OHS Code* Part 27
- Fatigue

Appendix Items

- Workplace Violence Policy
- Tips for Preventing and Managing Incidents of Violence or Harassment—
  courtesy of Workplace Health and Safety Bulletin *Preventing Violence and Harassment at the Workplace*
  www.worksafely.org

Psychosocial hazards in the workplace are as real as physical, chemical and biological hazards, although less tangible/more difficult to identify and control (and there's no personal protective equipment available!). Psychosocial hazards should be treated with the same care and attention as all other identified hazards; employers and workers need to work together to ensure the mental and emotional health and safety of everyone at the workplace.

Working Alone—*OHS Code,* Part 28

A worker is "working alone" if they are at a worksite and assistance is not readily available in case of emergency, injury or illness. At a theatre, this could be a scenic artist who works alone overnight to do touchups on a set, an assistant stage manager who comes in to preset before anyone else is in the building, the lone props department worker who goes to the storage facility on their own, etc.

Legislated Requirements

Employers must ensure that an effective communication system is in place between a worker who works alone and persons who can provide assistance in case of an emergency, illness or injury. This may include one or more of the following methods:

- radio, telephone or other electronic communication
- visiting or contacting the worker at intervals appropriate to the nature of hazards of the work, if effective electronic communication is not practicable or readily available

Reference: *OHS Code*, Part 28

Best Practices

- Employers should ensure that no worker undertakes dangerous work while alone. This includes using power tools and equipment, working at heights, moving/lifting heavy items, doing electrical work, etc.
- Workers should always inform their employer where they will be working and to what time they will be engaged.
- Workers should arrange for assistance from another person who can provide help immediately when working alone.
- A formal check-in procedure should be established with the employer where applicable.
- A family member (spouse, child, close friend, roommate, etc.) cannot substitute for an employer.
- Workers should know where first aid supplies, fire extinguishers, telephones and emergency evacuation routes are before they find themselves working alone.
- Employers should do everything practicable to ensure the security of their facility and workers. Consider installing an emergency telephone and/or security system.

- Encourage and/or require workers to lock doors when working alone in the box office, lobby, etc.
- Front of House workers must be able to reach stage management immediately during pre-show, performance and intermission and vice versa. This can best be accomplished via an intercom system between the lobby and the tech booth.
- Have stage management and FOH team members leave the theatre together at the end of the evening/performance.

Violence—*OHS Code*, Part 27

Alberta Employment, Immigration and Industry formally recognizes violence in the workplace as a hazard that must be assessed and controlled. The *OHS Code* defines violence as "the threatened, attempted or actual conduct of a person that causes or is likely to cause physical injury"—this includes both harassment and bullying. Workplace violence can occur anywhere—it can be subtle or overt, deliberate or unintended, occurring between workers or between workers and patrons/strangers.

Legislated Requirements

Sections 390, 391 and 392 of Part 27 of the *OHS Code* require employers to:

- recognize and assess workplace violence as a hazard
- develop a policy and procedures on potential workplace violence
- communicate the organization's policy and procedures related to workplace violence
- instruct workers on recognizing workplace violence
- develop appropriate responses to workplace violence
- develop procedures for reporting, investigating and documenting incidents of workplace violence
- investigate incidents of workplace violence, prepare a report of the incident that includes corrective actions to prevent a recurrence and have the report readily available for inspection by an occupational health and safety officer

Section 8 of Part 1 of the *OHS Regulation* requires that the policy, procedures and incident reports be in writing and available to workers.

Reference: *OHS Code*, Part 27

Best Practices

- Proactively build a respectful workplace. Respect includes all protected human rights (gender, race, religion, sexual orientation, age, ancestry, colour, marital status, socio-economic status, mental or physical disability, etc.), as well as respect for the workplace environment, property, other people's privacy, physical space and belongings, different opinions and beliefs, and the safety of the workplace.

- Avoid the phrase "zero tolerance" in your workplace violence policy—it can serve to discourage workers from reporting incidents of workplace violence and cause workers to lose confidence in the policy if they feel appropriate actions were not taken.
- Post your workplace violence policy in public areas of your facility, in addition to communicating the policy with workers. Consider including the information in letters or emails to subscribers/patrons.
- Consult the information and appendices in AEII's *Preventing Violence and Harassment at the Workplace* Bulletin to assist you in developing and implementing a workplace violence policy and procedures.

- Provide appropriate conflict management and resolution training to workers likely to encounter or be the victim of workplace harassment or violence—in particular box office, front of house, concession and stage door/facility workers. This should include Alberta Gaming and Liquor Commission's Alberta Server Intervention Program (ASIP) for all workers who serve alcohol.* The WCB Alberta also offers a "Preventing Workplace Violence" seminar.

  note: as of January 1, 2007, organizations that have Class A, B, D, E, Duty Free and Commercial Public Resale Special Event liquor licenses are required to have one worker per shift per licensed room certified under ASIP. Most theatres have Class B liquor licenses. Stricter requirements will come into force January 1, 2010. Visit **www.asip.ca** for more information.
- Ensure your building is secure. Hire security.
- Ensure adequate personal and working space for all workers. Violence prone individuals have a need for personal space four times larger than the average individual.
- Develop corrective action plans and/or disciplinary consequences in reaction to an incident.

Fatigue

Most employers and workers in the theatre industry will experience job-related fatigue at some time in their careers. Industry demands and challenges such as hard deadlines, poor scheduling and planning practices, "cowboy" culture and workers who work several jobs/contracts simultaneously complicate this far-too-common problem. Fatigued workers tend to react more slowly than usual, fail to respond to things going on around them or respond incorrectly, show poor logic and judgment, are unable to concentrate, are less motivated and more forgetful, and have a greater tendency for taking risks.

Best Practices

- An industry, workplace or peer culture that supports and/or rewards workers willing to work long hours and/or many consecutive days regardless of fatigue should not be tolerated or fostered.
- Employers must consider how work outside of the "normal" workday and extended work hours could affect a worker's health, safety and family and social life.
- Proper production planning which includes time to deal with last-minute/unforeseen work should be used to eliminate the need for overtime.
- Exposure to physical and chemical hazards must be considered and minimized when hours of work are extended.
- The use of PPE that may test the limits of endurance of some workers (i.e. heavy and/or restrictive equipment) must be considered and minimized when hours of work are extended.
- Unnecessary distractions should be minimized. Consider setting policies for personal cell phone and personal music device use. Ensure background music does not interfere with workers' ability to focus and concentrate.
- According to Alberta's *Employment Standards Code*, the workday is limited to 12 consecutive working hours in any one day. Those working in community theatres and on independent productions where workers will likely work at two jobs in one day should try to schedule work with adequate periods of rest (including time for travel, eating, etc.) between jobs and to avoid a significantly long work day for workers.
- Mandatory off-duty hours increase the likelihood that a worker will rest or sleep. Rest time can be enhanced with onsite, quiet accommodation and prepared/supplied meals.
- Driving while fatigued is extremely dangerous. Studies have shown that after 20 hours of sustained wakefulness, a person can be as functionally impaired as someone with a blood alcohol concentration of 0.10 percent—a level of alcohol intoxication greater than the level legally permitted in Alberta.
  - Employers should make travel arrangements for workers who claim or seem to be experiencing fatigue.
  - Workers who drive as part of their duties should travel in pairs whenever possible.
- Workers must be upfront and honest about their schedules and personal limits. Contract workers and volunteers should understand that the inability to maintain sleep regularity (changing, non-regular sleep periods) may cause fatigue.
- If you feel fatigued, the best response is to stop work or take a long break. Continuing to work after fatigue sets in increases the risk of incidents and injuries to you and your coworkers and decreases productivity.

(Theatre Company)

WORKPLACE VIOLENCE POLICY

Definition of Violence

In this document "violence" is defined as the threatened, attempted or actual conduct of a person that causes or is likely to cause physical injury. Because _____ _____ is a public building, our employees face the possibility of threats or occasions of violence from the general public, from facility renters, visiting artists, contract workers, patrons and other employees.

Definition of Employee

In this document "employee" is defined as a person who is in the employ of _____ _____in the position of a wage earner, contractor or volunteer. Contractor includes all persons who have entered in a contract with _____ _____ and includes, but is not limited to, artists, designers and rental clients.

Definition of Supervisor

In this document "supervisor" is defined as the manager of the employee. In cases where the employee does not have a direct supervisor, any manager shall be deemed the supervisor for dealing with acts of violence, until an appropriate supervisor is identified.

Statement of Belief

Acts of violence within _____ are unacceptable whether committed by an employee against another employee or a member of the public, or by a member of the public against any employee. _____ believes in the prevention of violence and promotes a violence-free workplace in which all people respect one another and work together to achieve common goals. The management of _____ is committed to investigating reported incidents of violence in an objective and timely manner, taking necessary action and providing appropriate support for victims. No action shall be taken against an individual for making a complaint unless the complaint is made maliciously or without reasonable and probable grounds.

Recognizing Workplace Violence

Generally, acts of violence take the form of unwarranted and/or unwelcome physical contact. On the whole, acts of violence are those which destroy individual dignity, lower morale, engender fear and break down work unit cohesiveness.

Workplace violence will be deemed to have occurred when the above acts are directed by or towards staff, visitors and/or members of the public.

An act of violence may occur as a single event or may involve a continuing series of incidents.

Violence will not measured by gender in that violence victimizes both men and women.

Policy and procedures to minimize or eliminate workplace violence

i. Employees should avoid confrontation whenever possible.

ii. Anyone feeling threatened or endangered or suspecting that someone else is being threatened or endangered shall immediately contact their supervisor.

iii. When working in a public space, anyone witnessing unusual behaviour or loitering of undesirables in _____, should contact _____ (name/position).

iv. Whenever management deems the possibility of violence is increased, additional security staff shall be hired and/or requests made to the city for assistance.

Appropriate response to workplace violence and how to obtain assistance

i. First, an employee sustaining an injury shall seek medical attention immediately.

ii. Second, the employee shall report the incident as indicated below.

iii. Should the employee require assistance from an outside party, he/she shall speak to his/her supervisor, who will pursue assistance on the employee's behalf.

iv. Any employee experiencing adverse aftereffects resulting from workplace violence or from being exposed to workplace violence shall consult a health professional of the employee's choice.

Procedures for reporting, investigating and documenting incidents of workplace violence

i. Any overt incident of violence, whether personal injury occurs or not, shall not be deemed trivial. All overt incidents occurring in _____ must be reported to _____(name/position) immediately followed by the submission of an incident report.

ii. When an injury occurs as a result of the incident, an injury report must also be completed and submitted to _____ (name/position).

iii. Any incident of suspected violence shall likewise be taken seriously and be reported using the above procedure, so that the matter can be investigated and responded to in an appropriate manner.

iv. If the investigation of either overt or suspected violence reveals evidence to support the complaint of violence, management will undertake corrective actions in order to prevent a recurrence. These actions will be outlined in a written report and the offender will be disciplined appropriately.

v. Appropriate discipline may include either or both of the following: involvement of the Police Department and/or suspension or dismissal. The incident will be documented and placed in the offender's file.

vi. This item primarily refers to, but is not limited to, employees who deal with the public. It is recognized that due to _____ position as a public building in _____(city/location), employees may have to use as much force as deemed necessary to protect themselves from violent

actions of intruders in the facility. If investigation proves this to be the case disciplinary actions may not result.

vii. Regardless of the outcome of a complaint of violence, as long as the complaint was deemed to have been made in good faith and without malice, the employee lodging the complaint, as well as anyone providing information, will be protected from any form of retaliation by either co-workers or superiors. Types of retaliation may include, but are not limited to, dismissal, demotion, unwanted transfer, denial of opportunities within the company and/or harassment of an individual as a result of having made a complaint or having provided evidence regarding the complaint.

viii. Incident and injury reports will be kept for a minimum of three years by _____ _____(name/position). Employees named in an incident report will have access to the appropriate report upon written request as required by the Personal Information Protection Act.

ix. Strict confidentiality will be maintained. No details of incidents shall be disclosed to any third party without prior consultation with the victim.

x. Employees not satisfied by the internal procedure undertaken by the theatre may pursue their concerns through alternate forums, such as a union or local law enforcement agency, if appropriate.

Evaluation

The effectiveness of the above procedures will be monitored by _____ _____ (name/position). Any concerns or questions about the policies and procedures indicated herein shall be addressed to _____ (name/position).

WORK SAFE ALBERTA

Appendix B

Tips for Preventing and Managing Incidents of Violence or Harassment

Although no incident of abuse is deserved, there are steps that workers can take to reduce the incidents of violence or harassment on the job. The following practical suggestions are from a guide entitled "Violence in the Workplace" from the Canadian Centre for Occupational Health and Safety (1999).

Dealing with a potentially violent person

Tips for verbal communication

- Focus your attention on the other person to let them know you are interested in what they have to say.
- DO NOT glare or stare, which may be perceived as a challenge.
- Remain calm and try to calm the other person. DO NOT allow the other person's anger to become your anger.
- Remain conscious of how you are delivering your words.
- Speak slowly, quietly and confidently.
- Speak simply. DO NOT rely on official language or complex terminology.
- Avoid communicating a lot of technical or complicated information when emotions are high.
- Listen carefully. DO NOT interrupt or offer unsolicited advice or criticism.
- Encourage the person to talk. DO NOT tell the person to relax or calm down.
- Remain open-minded and objective.
- Use silence as a calming tool.
- Acknowledge the person's feelings. Indicate that you can see he or she is upset.

Tips for Non-Verbal Behaviour and Communication

- Use calm body language — relaxed posture with hands unclenched, attentive expression.
- Arrange yourself so that your exit is not blocked.
- Position yourself at a right angle rather than directly in front of the other person.
- Give the person enough physical space …this varies by culture, but normally 1-2 m is considered an adequate distance.

- Get on the other person's physical level. If they are seated try kneeling or bending over, rather than standing over them. DO NOT pose a challenging stanch such as:
  - standing directly opposite someone
  - putting your hands on your hips
  - pointing your finger
  - waving your arms
  - crossing your arms
- DO NOT make sudden movements which can be seen as threatening.
- DO NOT fight. Walk or run away. Get assistance from security or police.

Responding to a Physical Attack

If you are attacked:

- Make a scene, yell or scream as loudly as possible. Try shouting words like STOP, FIRE or HELP.
- If you are being pulled along or dragged, fall to the ground and roll.
- Blow a whistle, activate your personal security alarm or push the security alarm.
- Give bystanders specific instructions to help you. Single someone out and send them for help. For example, "You in the yellow shirt, call the police."
- If someone grabs your purse, briefcase or other belongings, DO NOT resist. Throw the item to the ground several feet away from the thief and run in the opposite direction, yelling "help" or "fire".
- DO NOT chase a thief.
- Run to the nearest safe place, a safe office or an open store.
- Call security or the police immediately after the incident.
- If the attack does not warrant calling the police, inform your supervisors or the authorities at your workplace.
- File an incident report.

Be Prepared

- Take a self defense course.
- Try to imagine yourself responding successfully to different types of attacks. Practice your responses.

Working Off-Site

If you work away from a traditional office setting you must exercise extra caution. In many cases you have less or no ability to control your work environment. You may require special training to avoid violence by using conflict resolution and mediation tactics. Nevertheless, the following specific preventive tactics or procedures will minimize or prevent risks associated with working off-site:

- Have access to a cellular telephone or similar means of communication.
- Use an established check-in procedure that allows you to manage typical situations you may encounter off-site.
- Prepare a daily work plan so that you and others know where and when you are expected somewhere.
- Arrange to meet in a safe environment.
- Be alert and make mental notes of your surroundings when you arrive at a new or different setting.
- Use the "buddy system", especially when you feel your personal safety may be threatened.
- Determine under which circumstances unaccompanied visiting would involve unacceptable risk.
- Exercise your right to refuse to work in clearly hazardous situations.
- Disclose any feelings of discomfort or apprehension about an impending appointment to your supervisor.
- DO NOT enter any situation or location where you feel threatened or unsafe.
- Carry hand-held alarms, noise devices or other effective alarm devices.

When you are in unfamiliar premises:

- Check for escape routes and position yourself near an escape route.
- Mentally rehearse what you will do if an individual becomes aggressive or hostile. Decide what your best preventive tactic will be.
- Take control of the seating arrangements. If possible, seat yourself near the door.
- Maintain a "reactionary gap" between you and the person — out of reach of the average person's kicking distance. Increase the gap by sitting at a table. Be aware of the person's proximity at all times.
- Be well prepared for an appointment. Review the available information about the individual(s) you are meeting.
- Terminate the appointment in a non-confrontational manner if the individual appears to be:
    - intoxicated
    - under the influence of drugs
    - emotionally disturbed and threatening or out of control.

DO NOT allow yourself to be backed into a corner. Leave a clear path to the exit.
DO NOT venture too far into the premises e.g. remain near an exit.
DO NOT turn your back on the person or enter a room first.

Terminating a Potentially Abusive Interaction

- Interrupt the conversation firmly but politely.
- Tell the person that you:
  - do not like the tone of the conversation
  - will not accept abusive treatment
  - will end the conversation if necessary.
- Tell the person that you will ask them to leave the building, or that you will leave (if working off-site).
- If the behaviour persists, end the conversation.
- Ask the person to leave the building or leave yourself.
- If the person does not agree to leave, remove yourself from the scene and inform your manager or supervisor immediately.
- DO NOT return to the person if you believe they pose a physical threat.
- Advise other staff and have them leave the immediate area.
- Call security or your local police.
- File an incident report.

RESOURCES

RESOURCES

1.0 Alberta Government Resources

Alberta Employment, Immigration and Industry (AEII)
www.worksafely.org

Receive information about Workplace Health and Safety, including legislative requirements, how-to bulletins and other relevant publications, e-learning tools, educational and promotional resources.

Workers' Compensation Board—Alberta (WCB)
www.wcb.ab.ca

The Workers' Compensation Board—Alberta is a not-for-profit mutual insurance corporation funded entirely by employers.

2.0 Theatre Alberta Resources

Theatre Alberta has a fully circulating play script and theatre reference library housed at our office in Edmonton (3rd Floor Percy Page Centre, 11759 Groat Road). The library has a growing collection of technical theatre and health and safety resources.

Library materials are mailed free to Theatre Alberta members who reside outside of the Edmonton area. The full library catalogue is available online at **www.theatrealberta.com**.

Theatre Alberta welcomes and encourages acquisition/purchase suggestions from the Alberta theatre community.

3.0 Theatre Specific Resources

Arts, Crafts & Theater Safety (ACTS)
www.artscraftstheatersafety.org

ACTS is a not-for-profit corporation based in New York City that provides health, safety, industrial hygiene, technical services, and safety publications to the arts, crafts, museums, and theatre communities.

Of particular interest:
- *The Health & Safety Guide for Film, TV & Theater* by Monona Rossol (2000)
- *The Artist's Complete Health and Safety Guide* by Monona Rossol (2001)
- *Stage Fright: Health and Safety in the Theatre* by Monona Rossol (1991)
- *ACTS FACTS*, a monthly newsletter

Canadian Institute for Theatre Technology/Institut canadien des technologies scénographiques (CITT/ICTS)
www.citt.org

CITT/ICTS is a national arts service organization with the mission of actively promoting the professional development of its members and working for the betterment of the Canadian live performance community.

Of particular interest:

- *Theatre Safety Basics: A Guide to Creating a Safety Program for Your Company* (1999)

Entertainment Services and Technology Association (ESTA)
www.esta.org

ESTA is a non-profit trade association based in New York City representing the entertainment technology industry and dedicated to a core mission of Building the Business of Show Business. ESTA promotes professionalism and growth in the industry and provides a forum where interested parties can come together to exchange ideas and information, create standards and recommended practices, and address issues of training and certification.

Of particular interest:

- Technical Standards Program—**www.esta.org/tsp**
- Entertainment Technician Certification Program—**www.etcp.esta.org**

Entertainment Technology of New Zealand
www.evanz.co.nz/etnz

Of particular interest:

- *A Guide for Safe Working Practices in the New Zealand Theatre & Entertainment Industry, Draft 10* by Stephen Blackburn, Nick Kyle, Phil Conroy and Rob Peters (2004)

Ontario Ministry of Labour
www.labour.gov.on.ca

The Ontario Ministry of Labour advances safe, fair and harmonious workplace practices that are essential to the social and economic well being of the people of Ontario.

Of particular interest:

- *Safety Guidelines for the Live Performance Industry in Ontario, 3rd Edition* (2005)
  www.labour.gov.on.ca/english/hs/guidelines/liveperformance

Safety and Health in Arts, Production and Entertainment (SHAPE)
www.shape.bc.ca

SHAPE is an industry association dedicated to promoting health and safety in film and television production, theatre, music, and other performing arts industries in British Columbia. SHAPE provides information, education, and other services that help make arts production and entertainment workplaces healthier and safer. SHAPE is funded by the Workers' Compensation Board of B.C.

Of particular interest:

- *Working at Heights in the Live Production Industry in B.C.: A Guide to WCB Requirements and Safe Work Practices* (2005)
- *Focus on Safety: Safe Work Practices for Film and Television Production in B.C.* (2003)
- *Health and Safety Guide for Live Performance (Theatre)*
- various publications and safety guidelines on just about any topic of interest

Theatre Ontario
www.theatreontario.org

Theatre Ontario provides theatre practitioners throughout Ontario with training and information to enhance and support their art form.

Of particular interest:

- *To Act In Safety* (2001) **www.theatreontario.org/theatresafety**

4.0 Other Resources

Association of Workers' Compensation Boards of Canada (AWCBC)
www.awcbc.org

AWCBC was established to facilitate the exchange of information between Workers' Compensation Boards and Commissions.

Canada's National Occupational Health and Safety Website (CanOSH)
www.canoshweb.org

A website to enable Canadians to easily and independently locate occupational health and safety information provided by the federal, provincial and territorial governments of Canada and by the Canadian Centre for Occupational Health and Safety (CCOHS).

Canadian Centre for Occupational Health and Safety (CCOHS)
www.ccohs.ca

CCOHS is a Canadian federal government agency based in Hamilton, Ontario, which serves to support the vision of eliminating all Canadian work-related illnesses and injuries.

Cultural Human Resources Council (CHRC)
www.culturalhrc.ca

CHRC strives to be at the centre of vision and forward thinking in the area of cultural human resources development. CHRC brings together representatives of arts disciplines and cultural industries in the cultural sector to address the training and career development needs of cultural workers—artists, creators, technical staff, managers and all others engaged professionally in the sector, including the self-employed.

Health Canada
www.hc-sc.gc.ca

Health Canada is the Federal department responsible for helping Canadians maintain and improve their health, while respecting individual choices and circumstances.

Health Canada: Workplace Hazardous Materials Information System (WHMIS)
www.hc-sc.gc.ca/hecs-sesc/whmis

The Workplace Hazardous Materials Information System (WHMIS) is Canada's national hazard communication standard.

Human Resources and Skills Development Canada (HRSDC), Labour Program
www.hrsdc.gc.ca

The objective of the HRSDC's Labour Program is to promote a fair, safe, healthy, stable, cooperative and productive work environment, which contributes to the social and economic well-being of all Canadians.

Job Safety Skills Society
www.jobsafetyskills.com

The JSSS is a partnership with educators, industry, government and the community created to address the unacceptable number of workplace injuries and fatalities among young workers.

World Health Organization (WHO)
www.who.int

WHO is the United Nations specialized agency for health. WHO's objective is the attainment by all peoples of the highest possible level of health.