

BEST PRACTICES
FOR THE
AMUSEMENT RIDE INDUSTRY

**A DOCUMENT THAT SUPPORTS
WORKPLACE AND
PUBLIC SAFETY**

Developed by the Amusement Ride Industry in partnership with the Technical Standards & Safety Authority

Best Practices for the Amusement Ride Industry

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SECTION 1

1. Introduction

Industry members in partnership with the Technical Standards and Safety Authority have developed Best Practices for the Amusement Ride Industry. Best Practices is intended to promote safety in the workplace, ensuring the safety of employees and the riding public through compliance with the Best Practices and applicable legislation. The Amusement Ride Industry is governed by various laws; chiefly those pertaining to technical standards, occupational health and safety and labour standards.

Committee members responsible for the development of the Best Practices assume no responsibility for the safety conditions at any particular jobsite or location or compliance with regulatory or legal requirements.

The Best Practices and procedures identified in this document may be based upon experiences of field personnel, research conducted by safety specialists, or upon applicable legislation. The practices and procedures developed are intended to serve as precautions to reduce hazards, prevent incidents and avoid injuries. They are also the recommended methods by which to carry out and complete a job safely.

Best Practice is designed to be a resource of safety information that amusement industry employers / employees can use to help prevent incidents and injuries.

All amusement ride industry employees are encouraged to familiarize themselves with the contents of Best Practices. The safety procedures apply to persons setting up, taking down or operating rides; as well as all employees involved in the business of operating rides for the entertainment of the public.

SECTION 2

2. Health and Safety Checklist for Amusement Industry Employers

Provided below is a checklist of questions addressing the employer's responsibilities relative to the health and safety of employees and temporary/contract workers. An affirmative answer to these questions will reduce the employer's liability in the event of an accident causing injury to an employee.

- Do you have procedures that ensure that workers receive specific orientation on arrival at your workplace? For example, potential hazards, reporting deficiencies etc.
- Are all full-time, part time, temporary and contract workers informed of your health and safety rules?
- Do you have proof of training and certification that may be required by the worker to capably and safely do the job?
- Are your supervisors competent? Do they understand that they have the same legal responsibilities for the part time workers as they do for regular employees?
- Do you have a policy stating workers are not to be assigned to another area of work without first without first ensuring that training is provided?
- Are you confident that you have taken all reasonable precautions to protect the health and safety of ALL workers, including part time workers?

SECTION 3

3. Amusement Devices Operational Job Analysis

3.1. Introduction

The purpose of this document along with the attached matrix is to provide details on the job hazard analysis carried out for the operators of fixed and traveling amusement devices in operation in Ontario. The job hazard analysis was carried out by undertaking site visits to the Canadian National Exhibition and the Western Fair and through discussions with TSSA inspectors and the TSSA Health and Safety Specialist. The intent of this exercise was to develop a "Best Practice" that is industry driven and to be used as a guideline for the Ministry of Labour as an inspection tool for their inspectors. The job hazard analysis and the matrix are a means of assisting the industry in arriving at a practical "Best Practice". It should be noted that the job hazard analysis matrix only focused on operational hazards that lead to a potential operator-device or an operator-patron contact or collision. The analysis did not consider typical occupational health and safety hazards that fall under the jurisdiction of the Ministry of Labour. However, a general occupational hazard matrix is also provided that may be of use when developing the "Best Practice" in order that all aspects of the job are covered.

3.2. Outcome

The attached matrix that follows outlines the contributing factors for potential incidents involving either operator-device or operator-patron contact or collisions along with TSSA recommendations for preventive measures to address the contributing factors. The contributing factors and the associated preventive measures were determined based on the following key assumptions and existing risk control measures:

- TSSA's existing regulatory program with respect to management of public safety risks associated with amusement devices encompasses potential risks associated with operator safety; accordingly the risk assessment and control mechanisms adequately represent operator safety hazards;
- The amusement devices industry in partnership with TSSA has recently developed an Operators' & Attendants' Safety Handbook for all device operators and expects the operators to be adequately trained to the minimum standard specified in the handbook;
- It is expected that the device owners and operators are aware of and are adequately trained on occupational health and safety requirements as specified and regulated by the Ministry of Labour;
- The device owners are aware of the operating requirements specified by the manufacturers of the devices, that include safety related issues such as designated safe zones etc., and have provided the operators with the necessary training in the operation of the equipment.

The matrix only acts as a guide for the inspectors in order to recognize key operator related safety hazards and associated contributing factors and to determine the existence and effectiveness of the preventive measures in place to address the hazards.

SECTION 4

4. Operators and Attendants – Occupational Hazards Analysis

HAZARD	POTENTIAL CAUSE	PREVENTIVE MEASURE
Slip, trip, fall	Incomplete, improper or inappropriate construction Poor housekeeping, partial assembly, improper standing position, lack of movement Presence of foreign objects Brake not applied/functioning Misjudgement of height between floor and PCU	Wait until assembly is nearly complete, extra care in traversing foot print Extra care in assembly zone/change position, stretch, proper footwear Periodic housekeeping practices, proper footwear Ensure brake is functioning before entering Inspect distance prior to movement, work in teams (help entering/exiting)
Static standing posture	Standing in one place in one position too long, poor choice of footwear	Occasional stretching, walking about
Ride falls on foot	Ride may not be secure	Wear proper foot protection
Heat exhaustion	Exposure to the sun	Lots of water, sunscreen, hat, proper clothing, breaks in shade
Back, neck, knee strain	Crouching to inspect underside of structure, performing maintenance, carrying weights etc. From shaking, pulling, pushing on fencing, gate or kicking cribbing	Proper techniques in bending, limit amount of time spent in an uncomfortable position Refrain from sudden jarring movements, use constant force with care
Skin abrasion / laceration Skin reaction to chemicals	Rough or sharp surfaces Skin contact with grease, lubricant	Wear gloves, use a wrench Wear gloves

Best Practices for the Amusement Ride Industry

Developed by the Amusement Ride Industry in partnership with the Technical Standards & Safety Authority

HAZARD	POTENTIAL CAUSE	PREVENTIVE MEASURE
Pinch/nip	Improper assembly of interlock areas Improper installation	Visually check to ensure assembly is complete Ensure proper installation before proceeding Use tool other than hands, exercise caution
Fall from height	Inspection of ride before, during, or after construction Darkness due to nightfall Darkness within structure Weather (wind, storm)	Fall protection: harness, tie off Permanently-fixed ladders Binoculars to reduce climbing Work cage Maintaining 3-point contact while climbing ladders
Clothing caught in machinery	Loose sleeves	Provide bands to retain sleeves
Hit by PCU	Miscommunication / lack of communication between rider and operator or between operators No lock-out / tag-out procedures	Effective communication / lock-out / tag-out procedures
Shock (OPR-3)	Exposure to live wires, ungrounded power sources, mechanical interventions	Avoid contact with any exposed wires, ensure proper grounding of power before beginning inspection
Noise (OPR-7)	Operation of ride, maintenance of ride	Stand safe distance away from operating ride Proper PPE

SECTION 5

5. Operators and Attendants – Operational Hazards Analysis

Device Type	Examples	Operator-Device Collision Contributing Factors	Preventive Measures
Go Karts		Addressing Emergency Situations	Wearing PPE
		Directing Traffic	Wearing PPE, Designating safe zones
		During Loading /Unloading	Designating safe zones (Barriers between loading and unloading) as per standardized definition
Bumper Cars	Scooter	Addressing Emergency Situations	Wearing PPE
		Directing Traffic	Wearing PPE, Designating safe zones
		During Loading/Unloading	Designating safe zones (Barriers between loading and unloading) as per standardized definition
Vertical Revolving Rides	Yellow Submarine, Fire Chief, Avalanche, Ferris Wheel, Zipper, Lolly Pop, Wave Swinger	Lack of awareness of stopping time	Operations training
		Clearance	Designating safe zones
		Violating Procedures	Training /disciplinary measures / enforcement
Circular Revolving Rides	Himalaya, Polar Bear, Express, Snowball, Music Fest, Hot Wheels, Octopus, Enterprise, Scrambler, Tilt-a-Wheel, Roundup, Crazy Dance, Gravitron	Lack of awareness of stopping time	Operations training
		Clearance	Designating safe zones
		Violating Procedures	Training /disciplinary measures / enforcement
		Falling Objects from patrons	shelters over stations
Rollercoaster	Dragon Wagon, Wacky Worm, Orient Express, Zyklon, Wild Cat	Lack of awareness of stopping time	Operations training
		Clearance	Designating safe zones
		Violating Procedures	Training / disciplinary measures/enforcement
Vertical Drop	Drop Fear, Drop Zone, Super Shot	Lack of awareness of stopping time	Operations training
		Clearance	Designating safe zones
		Violating Procedures	Training /disciplinary measures / enforcement
Water Slides		Slippery surface	Maintenance procedures
		Contact with patron	Designating safe zones
Air Bounce Inflatables	Titanic, Sabertooth Tiger, Ball Pond, Jumpin Bounce, Jim Jump	Contact with patron	Designating safe zones
Bungee Trampoline	Euro Bungee	Contact with patron	Designating safe zones
Trains		Contact with patron	Designating safe zones
Dry Slides		Contact with patron	Designating safe zones
Walk Through		Contact with patron	Designating safe zones

SECTION 6

6. Best Practices Set up and Take Down

6.1. Introduction

The set-up and take-down of temporary or permanent amusement rides is under the scope of construction legislation. Construction is defined, in the Canadian Oxford Dictionary, as building or fitting parts together, as in a structure. The definition includes the erection, alteration, repair, dismantling, etc. of any machinery or plant whether permanent or temporary. The description is applied to the Amusement Ride Industry during set-up and take-down of rides and equipment.

In addition to rides, the construction legislation applies to the erection and dismantling of booths for shows, tents and temporary structures consisting of scaffolding and staging.

During the installation and removal of amusement rides and equipment the applicable *construction regulations* apply. While the ride(s) are in operation and during maintenance of the equipment the applicable *industrial regulations* apply for the protection of workers.

This section of the Amusement Ride Industry Best Practices is specific to the special considerations for all workers and sub-contractors who may be at risk during set-up and take-down operations. It is not intended to be a comprehensive document covering all of the legal requirements that may be in place in every jurisdiction. The industry safety committee assumes no responsibility for safety conditions or compliance with regulatory or legal requirements at any location.

6.2. Construction Safety

Definitions

“Workplace” is any place in, on or near to where a worker works. A workplace could be a building, a mine, a construction site, an open field, a road, a forest or even a beach. The test is: Is the worker being directed and paid to be there, or to be near there? If the answer is “yes”, then it is a workplace.

“Worker” means a person who is paid to perform work or supply services.

“Employer” means a person who employs one or more workers. This includes someone who contracts for a worker’s services on a temporary basis. A contractor or subcontractor who performs work or supplies services for an owner, constructor, contractor or subcontractor is also an employer if he or she in turn employs workers.

“Construction” Includes the erecting and dismantling of a structure and the installation of any machinery. The definition has been applied to the Amusement Ride Industry during set-up and take-down of rides and equipment.

“Constructor” means a person who undertakes a construction project for the owner of a site or building. This also includes the owner who personally undertakes all or part of the project, whether alone or with another employer. The constructor is generally the person who has overall control of a project.

“Supervisor” means a person who has charge of a workplace or authority over any worker.

“Owner”

The person who owns the lands or premises that are being (or will be) used as a workplace.

Overview

Health and safety legislation sets out the rights and duties of all the parties in the workplace. The main purpose of the legislation is to protect all workers from the potential hazards that may be present on the job. Legislation also provides for enforcement of the law where compliance has not been achieved voluntarily. The applicable construction regulations should be consulted in each jurisdiction for specific legislated requirements.

Notification by Industry Members

Many amusement shows and rides are in place at a location for a short period of time. The industry members are advised to notify the applicable jurisdiction’s offices by telephone or Fax before the set-up of the show.

Ride Foremen / Mechanics

In the Amusement Ride Industry, many ride foremen or mechanics have dual responsibilities and are in a position of authority over other workers. The employer is responsible for appointing a competent person to supervise workers.

Competent Person

A competent person, as defined by legislation, is one who is qualified because of knowledge, training and experience to organize the work.

The competency includes ensuring that the supervisor is familiar with the health and safety legislation and the regulations that apply, and has actual knowledge about any potential danger to health and safety in the work.

Minimum Age Requirements

Labour standards and health and safety legislation in each jurisdiction dictate the minimum age of workers at a workplace. Generally the minimum age for workers on a construction site or employed in construction is sixteen (16). When the amusement show is in operation or equipment is being maintained the minimum age is fifteen (15).

If the minimum age is assigned by regulation, for example construction regulations, no person younger than the stipulated age is to be present on or about the workplace while construction work is being performed.

6.3. Safety Training

General

All employers have a duty and a responsibility to ensure that workers are trained before starting a job. Supervisors have an identical duty and responsibility. The employer, supervisor or another competent person may provide training. The employer should retain proof of training in order to reduce the company's liability.

Certification or Proof of Training

Some trades require training resulting in certification; including electricians, ride mechanics, gas fitters, and crane operators and other trades. At the very least, training should be documented and include performance testing.

Personal Protective Equipment (PPE)

PPE required by workers during set-up and take-down is governed by the applicable jurisdiction. In general, safety footwear and hard hats are required where there is a danger of injury to the head or feet. Selection of PPE must meet national or international standards for manufacture and performance. Other PPE that may be required include hand, eye and face protection, fall arrest equipment and protective clothing. Supervisors must ensure that training in the use and care of PPE is provided to a worker.

Cranes and Other Lifting Devices

Operators of cranes, elevated work platforms and forklifts must receive training prior to the operation of the equipment. The training may require certification or written proof of training.

Fall Arrest Equipment and Training

Where a worker is exposed to *falling from heights*, a worker shall be adequately protected by one of the following methods of fall protection;

- A guardrail system
- A travel restraint system
- A fall arrest system.

The *travel restraint system* allows for the use of a full body harness, or, a safety belt attached by a life line or lanyard to a fixed support. The full body harness could be attached to a self-retracting device (CAN/CSA Z259.2.2-M98) that is itself attached to a fixed support.

The *fall arrest system* consists of a full body harness attached to a lanyard equipped with a shock absorber. The system shall be attached to a fixed support. A shock absorber should not be used if, wearing or using one could cause a worker to hit the ground or an object or level below the work surface.

An employer shall ensure that a worker who may use a fall protection system is adequately trained in its use and given both oral and written instructions by a competent person; a record of training shall be kept by the employer. The training shall include the worker's name and the dates on which training took place.

Safety Meetings

The employer shall ensure that safety meetings are held as required.

6.4. Safety Procedures

Crane or Hoisting Device Maintenance

In general, all vehicles, machinery, tools and equipment must be maintained in a condition that does not endanger a worker or other person. Every crane or similar hoisting device used to lift ride components shall be operated by a worker having written proof of training on the crane or similar hoisting device.

The owner of every hoisting device shall keep a permanent record of all inspections, tests, repairs, modifications and maintenance of the device. The log book must include the record referred to for a period of the immediately preceding twelve (12) months and shall be kept with the crane or hoisting device.

Wire Rope, Slings, Chains

All ropes, slings, chains or similar device used for hoisting an object, including all fittings and attachments must be suitable for its use, in good condition and shall be inspected before use by a competent person.

Elevated Work Platforms

Shall be designed by a professional engineer and maintained by the owner in such a manner that the safety factors of the original design are maintained. A maintenance tag and inspection record shall be attached to the platform near the operator's station and an operator's manual for the elevating device shall be kept with the machine while it is on the workplace.

Suspended Work Platform, Bucket or Basket

All suspended platforms, bucket or basket used to raise, support or lower a worker must be designed by a professional engineer and be constructed according to the design drawings. Every worker on the platform, bucket or basket shall wear a full body harness connected independently to anchor points on the platform and used with a lanyard fitted with a shock absorber. *The applicable regulations governing the use of hoisting equipment to raise or lower a worker must be consulted prior to this activity taking place.*

Fork Lift Procedures

No worker shall operate a forklift or similar equipment unless training has been provided. The forklift controls must not be left unattended when the forks are raised. The forks must not be used to lift or support a worker unless a platform or basket, designed by a professional engineer, is securely attached to the mast of the forklift following the design drawings. The worker being lifted must wear a full body harness and lanyard attached to anchor points on the platform.

Signallers for Trucks, Trailers and Mobile Equipment

The Amusement Industry must make extensive use of signallers during set-up and take-down of the show. Rides, trailers and equipment must be backed into position at the site. Employers must ensure that signallers;

- Receive adequate oral training or oral and written training in a language that is understood
- Keep clear of the intended path of travel
- Be in full view of the driver/operator of the vehicle
- Have a clear view of the intended path of travel, and
- Watch the part of the vehicle or its load whose path of travel the driver/operator cannot see.

6.5. Emergency Procedures

Accident Reporting

Where an accident, explosion, or fire causes an injury at the work place, and the worker is disabled from performing the usual task, critically injured or killed the owner shall *immediately* notify the applicable jurisdiction, containing information and particulars that may be prescribed by regulation. In Ontario, the jurisdiction is under the Ministry of Labour.

The employer must establish written procedures to be followed in the event of an emergency and must make the procedures available to all supervisors and workers on the site.

6.6. First Aid

There must be adequate qualified first aid providers, supplies and equipment available for the protection of employees and the public.

SECTION 7

7. Best Practices for the Amusement Ride Industry – Safety Handbook

AMUSEMENT RIDE OPERATORS' and ATTENDANTS'

SAFETY HANDBOOK

Version One

2004

TRAINING ACKNOWLEDGEMENT

This manual outlines areas that amusement ride industry employees, as ride operators, should focus on to ensure their safety and the safety of their riders.

I acknowledge receipt of this Amusement Ride Operators' and Attendants' Handbook.

It is my responsibility to make sure I understand the content of this handbook.

I understand that the policies and rules contained in this book may not include all of the company procedures.

I understand that I am to keep this book for future reference and consult with my supervisor when in doubt for my personal safety or for the safety of others.

I understand that I must return this book to my employer upon the termination of my employment.

I understand that I must report all unsafe conditions to my supervisor/employer.

I understand that I will receive training on any equipment that I am required to operate and will participate fully in that training.

**Complete the Confirmation on the Following Page and Submit
to Your Supervisor**

TRAINING ACKNOWLEDGEMENT CONFIRMATION

Employer: (Please
Print Clearly) _____

Employee Name: _____

Street: _____

City: _____

Province/State: _____ Postal/Zip: _____

Employees Signature: _____

Date: _____

Employee Number: _____

Supervisor's Signature: _____

Date: _____

ACKNOWLEDGEMENTS

Albion Amusements
Campbell Amusements
Centennial Park Mini Indy
Centreville Amusement Park
Conklin Shows
Crown Amusements Ontario Inc.
Dudley Enterprise Inc.
Elevator World Inc.
Gable Bros. Shows
Homeniuk Shows
Ontario Ministry of Labour
Ontario Place
Paramount Canada's Wonderland
RCM Technologies Canada Corp.
Santa's Village Bracebridge
Space Age Amusements
Sportsworld
Technical Standards & Safety Authority
Townsend Amusements
Wild Water & Wheels
World's Finest Shows

SAFETY COMMITTEE

Barry Jameison	World's Finest Shows
Bryan Perkins	Wild Water & Wheels
Danny Campbell	Campbell Amusements
Francois Paradis	Beauce Carnaval
Fred Wolf	Ontario Place
Gord Kanani	Technical Standards & Safety Authority
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INTRODUCTION

The Amusement Ride Operators' & Attendants' Safety Handbook has been developed by the amusement ride industry in partnership with the Technical Standards and Safety Authority (TSSA). The handbook is intended to promote safety in the workplace while ensuring the safety of the riding public through well-trained amusement ride operators and attendants.

Committee members responsible for the development of the Amusement Ride Operators' & Attendants' Handbook assume no responsibility for either safety conditions or compliance with regulatory or legal requirements at any particular jobsite or location.

The safety practices and procedures identified in this Amusement Ride Operators' & Attendants' Handbook may be based upon experiences of field personnel or research conducted by many safety specialists. The practices and procedures are common sense precautions to eliminate hazards, prevent incidents and avoid injuries; they are also the recommended methods by which to carry out and complete a job safely.

Amusement rides vary from one manufacturer to another; therefore, it is not possible for a handbook on general safety procedures and practices to deal with every possible hazard that may be present at every jobsite. For that reason, each user of this handbook must carefully observe site-specific safety conditions at each jobsite to make certain there are no conditions which would require safety precautions beyond those described in this handbook.

This Handbook is designed to provide a resource for safety information that the amusement industry employers/ employees should use to help prevent injuries resulting from unsafe acts and/or conditions.

All amusement ride industry employees should familiarize themselves with the contents of this Handbook. The safety procedures apply to persons operating rides and all employees involved in the business of operating rides for the entertainment of the public.

7.1. Section 1 Orientation

Attitude

Safety is an attitude and you need to have this attitude in everything you do.

Think Safe

Feel Safe

Look Safe

Be Safe

Ride operators have an important job and a big responsibility in terms of rider safety. You are the only one who has full control on most rides and so have to be proactive and sometimes react quickly to situations as they arise.

The amusement ride industry has an excellent safety record as a result of inspections, ride maintenance, safe operations and better ride designs. Ride Operators & Attendants play an important role in promoting the safety of amusement rides along with the ride owner, the ride mechanic, the local TSSA inspector, and the rider.

Attendance and Breaks

Every employee is important to the operation of a show or park. When an individual does not show up for work or takes extended breaks, it means extra work for fellow employees. The result has a direct impact on the safety of all.


It is your responsibility to contact your supervisor when you are not able to be at work or on time for work.

It is also important that you take your required breaks in order to stay focused on the duties of your job. Get away from the ride, relax and get re-energized. Do not distract other operators during your break, as they must concentrate to perform their job safely.

Dress Code / Identification

Good personal hygiene is a must and reflects well on your image and that of the company you work for. Hair should be worn at collar length, tied back to prevent entanglement or securely fit under a uniform cap. Gentlemen's beards if permitted should be close trimmed, also to prevent entanglement. (See conditions of employment / employer specific Section 6)

For safety reasons body jewelry must be kept to a minimum and limited in size. Personal electronic devices not required for your job such as walkmans, cell phones and pagers are not permitted while on duty.

In Ontario, ride operators and attendants are required to be readily identifiable (Amusement Devices Regulation)  other provinces and states have similar requirements to ensure that members of the public are able to contact persons who are in charge on a ride in the event of an incident.

Uniforms and identification badges, if issued, must be worn at all times when on duty. If an identification badge is lost, you need to report the missing badge to your supervisor immediately. Uniforms may vary and will be designated by your employer.

7.2. Section 2 Safety

Health and Safety Legislation

All Provinces and Territories have occupational health and safety legislation designed to protect the health and safety of workers. Everyone has a role to play as covered below.

- Employers are responsible for the safe condition of all workplaces.
- They must appoint competent supervisors for their employees.
- Employers must make sure that training is provided for all employees.
- Workers must work safely, participate in the training and inform their supervisor of unsafe conditions.
- Workers must not engage in unsafe activity such as a prank, feat of strength, running, rough and boisterous conduct, or horseplay on the job.

Commitment / Responsibilities / Rights

Every worker at an amusement ride facility or on a traveling show is responsible for health and safety at the workplace. Everyone is accountable for their own safety as well as the safety of fellow workers and the general public rider. Safety doesn't just happen. Safety is a shared responsibility.

Workplace Initiatives: Some basic rules for a safe workplace.

- Follow safety rules and procedures.
- Attend scheduled safety meetings.
- Keep your work area neat, clean and free of hazards.
- Immediately report hazardous situations that might result in an incident to your supervisor and the ride mechanic.

- Complete the daily inspection checklists assigned to you by your supervisor prior to operating the ride.
- Comply with all rules regarding accident prevention.
- Develop safe work habits and participate in safety training.
- Use safe tools and equipment to do your job and report any unsafe equipment or tools to your supervisor.

Think Safe

Feel Safe

Look Safe

Be Safe

Identifying Hazards in your Workplace:

- Potential hazards that could result in injury must be reported to your supervisor immediately.
- If someone can trip on it, slip on it, knock their head on it, get a splinter from it, fall from it, fall out of it, get cut from it, Report It
- Maintain equipment in good condition and follow safety procedures.
- Good Housekeeping is good practice.

Worker Health and Safety

All workers must work in accordance with the Health and Safety legislation. They must follow the employer's policies and workplace safety procedures.

Fatigue and boredom may cause you to act in an unsafe manner. You can combat fatigue by taking your breaks, getting away from the ride, relaxing and getting re-charged, through a change in your routine.

Rules to Remember to Protect Yourself:

- Know your ride. Some rides are extremely fast, reaching high into the air with several different motions.
- Observe the ride until you understand these motions.
- **Never leave your station.** Each ride has a minimum number of staff required to operate it. Never operate a ride with less than this minimum. If you are unsure, speak with your supervisor about the specific requirements for your ride.
- **Never** attempt to jump on or off the ride when it is in motion.
- Stay in your "**Safe Zone**" during operation. The "**Safe Zone**" is the area or position from which the ride is operated and designated by the manufacturer

or owner of the ride. The **"Safe Zone"** is for your personal safety while the ride is in motion.

- **Do Not leave your station "Safe Zone"** until the ride has come to a **"complete stop"**. Use **common sense**, don't fool around, and stay focused on the ride operation and the riders.
- **Always** wear the prescribed personal protective equipment as required.
- **Do Not** argue or fight with a rider. Contact your supervisor for assistance.

Think Safe

Feel Safe

Look Safe

Be Safe

Rider Safety and Unsafe Riders

Your safety and the safety of your riders are equally important. Unsafe riding practices are the major cause for of incidents on all types of rides.

Rider responsibility can be encouraged through education and ride operators & attendants can play an important role in this area. It is important for you to clearly communicate and enforce restrictions that apply to your ride.

Amusement Devices Regulation

No person shall behave in or on an amusement device or do any work on an amusement device in such manner as to,

- (a) impair the safe operation of the device; or***
- (b) endanger any person.***

TSSA is also supporting your efforts by reaching out to young children and parents through the RIDE SMART program in promoting safe riding practices.

Rules to Remember to Protect the Riders:

- Be alert to unsafe conditions that could cause trips or falls on the ride platform or steps.
- Be alert to unsafe conditions that could cause injury.
- Always check that seat belts or safety restraints are fastened and locked in place before the ride starts. The manner of checking is detailed in the ride operation manual and will be further explained during ride operation training by your supervisor.
- Be careful not to close the door or restraint on the rider's hand, arm, leg or head during loading and unloading.
- If you suspect a rider is under the influence of alcohol or drugs. Do not allow them to ride.

- Read the rules of operation carefully and remind riders to follow the posted rules for the ride.
 - Of age, height and or weight restrictions.
 - To keep hands, arms, legs and feet inside the ride at all times.
 - To remain seated until the ride comes to a complete stop, when the ride starts and prior to stopping the ride

When in doubt... If you have challenges with a rider or parent because of ride restrictions or behaviour, do not operate the ride. Stop the ride if in motion and contact your supervisor immediately.

- **Always** report all safety-related *incidents* to your immediate supervisor.
- **Never** leave the ride while it is operating.
- **Watch** the ride and riders at all times while it is operating.

Safety Meetings

When your employer schedules meetings to update you on safety, your attendance at these meetings is mandatory.

The meetings are for your benefit and deal with the importance of safety and the review of safety issues.

Get involved and share your experiences so that others will learn from your experiences as well and prevent avoidable incidents.

Think Safe

Feel Safe

Look Safe

Be Safe

7.3. Section 3 Safety Training

Ride Operating Manuals

The purpose of the ride operation manual is to help you with your responsibilities and familiarize you with the operation of the ride.

Each ride has its own manual and your supervisor will provide the necessary training. The manuals contain important information regarding the safe operation of the ride and may include daily checklists, daily logs, emergency instructions, lock out procedures, hand signals, operator safety and other specific operating instructions.

Details on loading and unloading, checking of passenger restraint systems and ride operation are also included and it is essential that you become familiar with the operational characteristics of your specific ride.

Pre-Opening Safety Checklist

Each ride has a specific safety checklist that must be completed, signed and dated on a daily basis prior to opening the ride to the public. Your supervisor will instruct you in what to look for and how to use the checklist. Remember that this checklist is a legal document and it must be initialed and signed off appropriately and in ink. Ensure that each item on the checklist is initialed by the person who performed the action.

Your supervisor will review and sign off on the checklist. Problems and concerns that come up during the pre-opening checklist completion must be corrected prior to operating the ride with riders.

Daily Operations Log

The operations log is used to record and maintain the history of the ride. Anything unusual about the operation of the ride must be recorded in the log.

If you should notice anything unusual, shut down the ride in accordance with the ride's emergency stop procedures and report it to your supervisor **immediately**.

The purpose of the log is to document a stoppage of normal ride operation whether it is maintenance or operational in nature.

Control of Ride

The operator's controls contain the means for starting the ride. The stop button and emergency stop for the ride are also located at the operator's controls. Some rides have a "deadman", or "presence" switch that requires you to keep your foot or hand on the switch throughout the entire ride cycle in order to operate the ride. Never block or disable this switch in any way. If you are in doubt about anything to do with the operation of the ride, call your supervisor.

Always remain at your station until the ride has come to a complete stop before attempting to load or unload passengers. Remind riders that they must remain seated until the ride comes to a full stop.

When multiple operators/attendants are required, an operator must remain at the controls while the ride is in motion. Before leaving the panel, the operator must ensure that the ride has been reasonably secured against unauthorized operation. In an emergency, shut the ride down according to the emergency shutdown procedures. Do not attempt to remove a rider from a moving ride. Never leave the controls while the ride is in motion or operating.

Loading and Unloading

Riders must adhere to the ride restrictions as posted and you must enforce the posted restrictions.

Certain rides need to be balanced when loading riders and that will require you to load vehicles opposite each other. Check with your supervisor or the ride manual to confirm if this is the case for the ride you are operating.

Riders should:

- Remain seated until the ride comes to a complete stop.
- Keep hands and feet inside the ride at all times.
- Hold onto hand holds and lap bars during the ride cycle.
- Not smoke while on the ride.

If your ride has a public address system, it is used to assist you in communicating the safety messages to a large number of riders and a prepared script may be valuable to ensure consistency and accuracy of the message.

Always be polite when making the announcements.

Strange or Unusual Noises, Movements or Odours

As a ride operator or attendant you will become quite familiar with the operation of your ride. Should you notice a change in the sound, movement or odour of your ride, stop the operation and call your supervisor. Identifying problems while they are small assist maintenance staff in resolving concerns before they become major issues.

Do Not attempt repairs to the ride except under the direct supervision of a qualified ride mechanic.

Ride Shutdowns

There are two types of ride shutdowns. Scheduled and unscheduled. If you encounter an unscheduled shutdown, ride vehicles may be at a point or position that is not normal for unloading or loading of passengers.

If an unscheduled shut down occurs, observe the following rules:

- Follow emergency procedures for the particular ride.
- Bring the ride to a safe stop following the proper procedures and using the emergency stop, brakes or stop button.
- Turn the ride power off if applicable. Not all rides can be powered off. If this is the case refer to the ride operations manual and your supervisor for the proper procedure.
- Notify your supervisor immediately.
- Remain at the controls until directed by a supervisor.

- After the problem is repaired, test cycle the ride in accordance with normal procedures and without riders before opening the ride to the public.
- Enter the incident in the ride operations logbook.

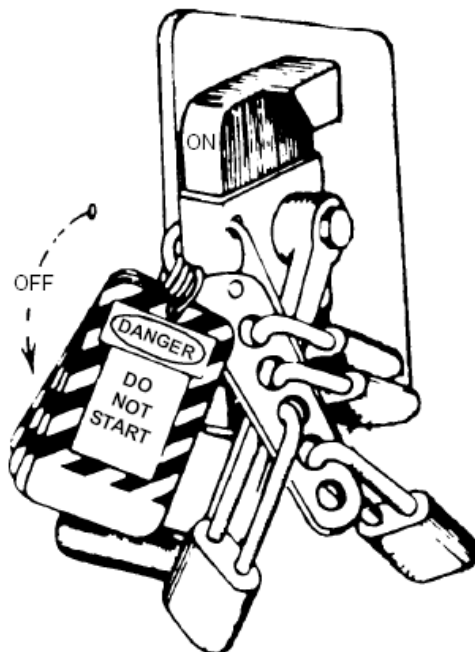
Weather Conditions

During the course of an operating day, the weather can change dramatically. Keep an eye on the weather conditions at all times and ensure that the ride is not operated with riders when conditions such as storms, high wind, lightning, hail and driving rain etc. prohibit the safe operation of the ride.

Remember when a storm is approaching that you will need time to safely remove all riders from the ride.

If you are unsure of the operating conditions due to impending weather, immediately contact your supervisor for directions.

Lock Out and Tag Out



Lock Out procedures are intended to prevent injury or death to employees by requiring certain procedures be taken before working on equipment. Understand the equipment; be aware of its potential hazards. Some equipment, in addition to lock out, tag out must be physically blocked, chocked or drained of potential energy to prevent movement. If you are unsure, or have not been trained in these procedures, contact your supervisor before proceeding.

The power sources for equipment must be **locked off** whenever any work is performed that is secondary to normal operation.

The work includes the following:

- Maintenance
- Inspection
- Adjusting
- Service
- Cleaning

A tag indicating that work is being performed on the ride must be attached to the lock and power disconnecting means. Inadvertently starting the amusement ride will put workers at risk. You must know the lock out and tag out procedures; your supervisor will provide training on lock out and tag out procedures. A trained and qualified ride mechanic will perform maintenance and repairs.

Do not enter into a restricted area for any reason (drive house, low track areas, pit areas etc.) unless you have been trained and instructed where to lock out and how to prevent movement of the ride or device that has the potential to harm.

Sometimes lost articles end up in restricted areas. Make sure that you follow the proper procedure or call the appropriate person to follow the procedure for retrieving a lost article. Following these procedures will keep you safe and may even save your life! Besides, it is the law.

Personal Protective Equipment (PPE)

Employees must ensure that personal protective equipment is worn when required. Protection for eyes, face, head, hands and feet, along with protective clothing, will ensure your safety if worn when necessary and applicable.

Hard hats protect employees working in areas designated as a construction area and where there is a possible danger of head injury from impact, or falling objects.

Foot protection must be CSA or ANSI approved and dependant on the type of work being performed and on the working conditions of the site.

Hearing protection, personal fall arrest equipment and hand protection (gloves) must be worn when potential hazards exist that could cause injury.

Check with your supervisor for the appropriate personal protective equipment to be used and worn to ensure your personal safety. Notify your supervisor if you have not had training on the use of fall arrest equipment before attempting to work at heights above 3 meters.


**Think Safe
Feel Safe
Look Safe
Be Safe**

7.4. Section 4 Emergencies

Ride Incidents

Serious ride incidents are rare, however, due to the commitment to safety by all persons involved, you may have to respond if an incident takes place.

Observe the following procedures in such an instance:

- Remain calm and in control of the situation.
- Notify your supervisor of the emergency immediately.
- If there is a serious injury, do not move the rider, but make the rider as comfortable as possible.
- **Do not** attempt to move the ride until your supervisor arrives and then only under his or her supervision or that of a mechanic to free a trapped passenger 
- Assist in securing the scene as directed by your supervisor until the authorities arrive.
- Assist in making way for emergency vehicles.
- **Do not** attempt to offer medical treatment unless qualified and authorized to do so.
- Record all the details on the employer's incident report form and complete witness statements to assist in possible investigations.
- Obtain names and telephone numbers of any witnesses and record on the employers incident report form.
- Refer all media enquiries to the company media spokesperson and **do not** give any statements to the media.
- Complete the incident report form accurately and outside of the influence of others, including facts and not opinions.

When an injury occurs that involves an employee, report the injury immediately to your supervisor. Your supervisor will notify the authority having jurisdiction for worker safety. In Ontario, your employer will contact the Ministry of Labour.

Fire Procedures

Fire prevention is everyone's job. Observe "No Smoking" signs and do not allow trash to accumulate around your ride.

Fuel and oil containers are to be kept in designated areas. Become familiar with the location of fire extinguishers.

In case of fire, adhere to the following:

- Remain calm

- Remove all riders and employees from the area
- Turn off power to the ride if possible
- Notify a supervisor immediately to call the fire authorities
- If it is a small fire:
 - Locate the closest fire extinguisher.
 - Pull the pin from the extinguisher.
 - Aim the extinguisher at the base of the fire from an upwind direction.
 - While squeezing the handle, sweep the extinguisher hose back and forth in the direction of the fire.

7.5. Section 5 Safety Regulations

Definitions

“attendant” means a person who actively engages in or supervises the loading, movement or unloading of passengers on an amusement device or the marshalling of passenger-carrying units, or both.

“competent person / supervisor” means a person who is qualified because of knowledge, training and experience to organize the work and its performance, is familiar with the Health and Safety legislation, and has knowledge of any potential or actual danger to health or safety in the workplace.

“employer” means a person who employs one or more workers or contracts for the services of one or more workers and includes a contractor or subcontractor who performs work or supplies services and a contractor or subcontractor who undertakes with the owner, constructor, contractor, or subcontractor to perform work or supply services.

“operator” means a person who has direct control over the starting, stopping and speed of an amusement device or part thereof or is in charge of the entire operation of an amusement device.

“supervisor” means a person who has charge of a workplace or authority over a worker.

“worker” means a person who performs work or supplies services for monetary compensation.

The following is taken from the *Ontario Amusement Devices Regulation*. Other Provinces and States have similar regulations for amusement rides and devices. The scope of responsibility for attendants and operators is described below.

Attendants and operators

A licence holder shall appoint a sufficient number of operators and attendants in respect of each amusement device operated by the holder to ensure that they are operated safely and in accordance with the Regulation.

A licence holder shall ensure that the attendants and operators of the holder are readily identifiable.

A licence holder shall ensure that,

- a) each operator of an amusement device of the holder has such knowledge, training and experience that,
 - (i) he or she is able to operate it safely without supervision, and*
 - (ii) he or she is aware of the hazardous situations that may occur with respect to persons using the amusement device to which the operator is assigned;**
- b) each attendant of an amusement device of the holder has such knowledge, training and experience that,
 - (i) he or she is able to carry out his or her responsibilities without supervision, and*
 - (ii) he or she is aware of the hazardous situations that may occur with respect to persons using the amusement device to which the attendant is assigned.**

An attendant who is assigned to an amusement device shall,

- a) be located in the area or at the position required by the manufacturer of the device or by the licence holder;*
- (b) be responsible for the safe functioning and use of the amusement device or component that is within the scope of the attendant's duties as assigned by the licence holder in the technical dossier;*
- (c) ensure that persons move safely to or from the device;*
- (d) ensure that persons using the device are adequately instructed with respect to the use of the area and components under the attendant's supervision;
and*
- (e) ensure that all components of the device are engaged in order to fulfill their respective purposes and that all necessary safety measures in the circumstances are taken before a signal to operate is given to the operator or person using the device.*

An operator shall be responsible for the safe operation and use of the amusement device or part of it to which he or she is assigned.

No operator assigned to an amusement device shall,

- (a) operate or initiate the operation of the device unless signaled by an attendant that it is ready for operation or unless the operator is otherwise satisfied that all necessary safety measures in the circumstances have been taken to ensure the safe operation of the device;*
- (b) operate more than one amusement device at a time; or*
- (c) while on duty, leave the controls of the device unattended without taking measures to prevent the unauthorized operation of the device and ensure its safe operation. O. Reg. 221/01, s. 15 (6).*

Think Safe

Feel Safe

Look Safe

Be Safe

7.6. Section 6 Health and Safety Need-to-Know List For Ride Operators and Attendants

- Before operating a ride, you should know the following:
- My supervisor is _____(name and location).
- Do I know the potential hazards in this workplace? In my job?
- Do I need protective equipment in my job? If so, what kind?
- Have I been trained to use the protective equipment?
- Have I had all the training that I should, before I start my job?
- Do I know what to do in an emergency situation or fire?
- Do I know where the first aid kits are? How do I contact the person trained in first aid?
- Do I know who the worker health and safety representative is?
- Am I confident in my ability to operate the ride?

APPENDIX A

Ministry of Labour Operations Contact List

EASTERN REGION 1111 Prince of Wales Drive, Ste 200 K2C 3T2 Regional Director: Vic Pakalnis Bus. # 613-727-2817 Fax # 613-727-2900					
District	Office Address	Manager	Bus. Phone	Bus. Fax	Cell
KINGSTON	BEECHGROVE COMPLEX 51 HEAKES LANE KINGSTON ON K7M 9B1	MARK BAUN	613-545-4004	613-545-9831	613-532-0199
OTTAWA EAST	1111 PRINCE OF WALES DR. STE 200 OTTAWA ON K2C 3T2	SANDRA LAWSON	613-727-2844	613-727-2900	613-290-5513
OTTAWA WEST	1111 PRINCE OF WALES DR. STE 200 OTTAWA ON K2C 3T2	JOHN HUTTON (A)	613-727-2884	613-727-2900	613-295-1763
PETERBOROUGH	300 WATER ST N ROBINSON PLACE (MNR BLDG) 3RD FLR. SOUTH TOWER PETERBOROUGH ON K9J 8M5	HOPE BOEHM	705-755-4705	705-755-4724	705-740-4232

NORTHERN REGION Suite 301, 159 Cedar Street Sudbury, P3E 6A5 Regional Director: Candys Ballanger-Michaud Bus. # 705-564-7433 Fax # 705-564-7435					
District	Office Address	Manager	Bus. Phone	Bus. Fax	Cell
BARRIE	114 WORSELY ST. STE 201 BARRIE ON L4M 1M1	IAN WARD	705-722-6642 x 427	705-726-3101	705-725-4014
DURHAM	67 THORNTON ROAD SOUTH OSHAWA ON L1J 5Y1	CAROLINE BURKE	905-433-9958	905-433-9843	416-570-1282
PEEL NORTH	THE KANEFF CENTRE, 1STFLR. 1290 CENTRAL PKWY WEST MISSISSAUGA ON L5C 4R3	STEVE GRIER	905-615-6543	905-615-7078	416-459-1445
PEEL SOUTH	THE KANEFF CENTRE, 1STFLR. 1290 CENTRAL PKWY WEST MISSISSAUGA ON L5C 4R3	MIKE CHAPPELL	905-615-7050	905-615-7098	416-998-1921
TORONTO EAST	2275 MIDLAND AVENUE MAIN FLR. SCARBOROUGH ON M1P 3E7	NICK CORNACCHIA	416-314-5378	416-314-5405	416-729-1737
TORONTO NORTH	1201 WILSON AVENUE BLDG "E" 2ND FLR. DOWNSVIEW ON M3M 1J8	STEVE KWOK	416-235-5302	416-235-5080	416-729-1743
TORONTO WEST	1201 WILSON AVENUE BLDG "E" 2ND FLR. DOWNSVIEW ON M3M 1J8	HO CHAN	416-235-5188	416-235-5090	416-407-3572
YORK	1110 STELLAR DRIVE UNIT 102 NEWMARKET ON L3Y 7B7	JOE BOESWALD	905-715-7886	905-715-7140	647-273-0276

Best Practices for the Amusement Ride Industry

Developed by the Amusement Ride Industry in partnership with the Technical Standards & Safety Authority

WESTERN REGION					
1 Jarvis St, Main Flr. L8R 3J2					
Regional Director: Sophie Dennis					
Bus. # 905-577-1238 Fax # 905-577-1324					
District	Office Address	Manager	Bus. Phone	Bus. Fax	Cell
BRANT	1 JARVIS ST, MAIN FLR. HAMILTON ON L8R 3J2	RENE LAFRAMBOISE	905-577-1254	905-577-1324	905-516-5687
HALTON	1 JARVIS ST, MAIN FLR. HAMILTON ON L8R 3J2	DINO MOZZON	905-577-1275	905-577-1324	905-570-2179
HAMILTON	1 JARVIS ST, MAIN FLR. HAMILTON ON L8R 3J2	DUNCAN MARTIN	905-577-1246	905-577-1200	905-517-2985
KITCHENER / WATERLOO	155 FROBISHER DR, UNIT G213 WATERLOO ON N2V 2E1	MARTIN DONAT	519-883-5690	519-883-5694	519-588-1451
LONDON NORTH	217 YORK ST. 5TH FLR. LONDON ON N6A 5P9	WAYNE DE L'ORME	519-646-3226	519-672-0268	519-319-0564
LONDON SOUTH	217 YORK ST. 5TH FLR. LONDON ON N6A 5P9	BONNIE SUHR	519-646-3248	519-672-0268	519-872-8653
NIAGARA	301 ST. PAUL ST 8TH FLR. ST. CATHERINES ON L2R 7R4	HENRIK VOGT	905-704-3081	905-704-3011	289-213-7463
WINDSOR	4510 RHODES DRIVE SUITE 610 WINDSOR ON N8W 5K5	JUDITH CRAGG	519-977-8106	519-258-1321	519-791-8995

To see current listings please visit the Ministry of Labour.