



Periodically industry professionals within IAAPA identify a safety related issue which is important to highlight in order to ensure that stakeholders are aware of some of the industry best practices.

Amusement Ride and Device Perimeter Access Control Best Practices

Note: This is not an exhaustive listing and does not address every operational consideration for all amusement rides or devices. Each amusement ride or device is unique and these best practices may not apply to all types of equipment. Owner/Operators are responsible for the safety of their own amusement rides and devices. IAAPA assumes no responsibility for safe operation but offers these best practices to members for consideration.

Objective:

Ride Perimeter or Device Access Control refers to the process or procedure for permitting personnel to enter the ride perimeter. This area needs to be designed properly to prevent accidental contact with a ride vehicle or device while in motion. It applies to employees, contractors and guests.

The following list includes fundamental features which some owner/operators implement in designing systems to control access to amusement ride or device restricted areas.

General Considerations:

The ride or device operations team should have procedures for who has access and when, how they are to be notified, what method is used to grant permission and how access is controlled.

In addition to considering the best practices contained in this document, operators shall comply with applicable laws, industry standards (ASTM, Euro Norm or ISO), manufacturers' operations and maintenance manuals regarding ride perimeter and device access control.

Signage Considerations:

Signage should be in place along perimeter fencing to warn of potential hazards, such as (being struck by a vehicle in motion, exposure to water hazards, dangerous animals, etc.).

Training Considerations:

Training for employees and contractors whom have access inside the ride perimeter and ride clearance envelope should include at least the following safety procedures:

- Never enter the ride perimeter without notifying operations, locking out and obtaining permission

- Never enter the ride perimeter while the ride is in operation
- Never place equipment within the ride clearance envelope
- **Lock-Out/Tag-Out** (formal procedure requiring training) energy sources on an amusement ride or device when personnel are performing any work that would be dangerous if energy is present or movement is possible.
- Procedures must be in place and utilized to prevent unwanted motion of a ride vehicle or equipment when people are performing routine functions around an amusement ride or device. An example of non-routine work would be disassembly of ride components to replace, repair and/or overhaul them. Routine work would encompass functions such as loading, unloading and/or inspections and cleaning.

Other Specific Zone Access Considerations:

- **Single Key Access** restricts access to the ride to one singular key. The ride is de-energized once the key is removed from the master control panel. Every single lock in the ride, including access doors, ride fence gates, equipment rooms, etc., are keyed to the “one key”, meaning only one person is allowed to create access to the space. No extra copies of the key are permitted. Worker locks are still applied to the master control panel power switch. For instances involving multiple workers inside the ride, procedures are in place to permit access with worker locks applied (reference **Lock-Out/Tag-Out** procedures).

Operational Considerations:

There should be an established process for amusement ride or device access control.

- Have a process for the operator to verify that employees and contractors have exited the ride perimeter before operating the ride or dispatching a ride vehicle, including test runs. A good example of this is the single key example listed above. At many parks, the load zone gate keys are all in the ride control booth. To access one, one must approach the main control operator and get them to give you the key. In the process the main control operator will shut down ride motion.
- Have a procedure which prevents operation of the ride prior to the completion of maintenance inspections and other work being conducted. For example, this could be a sign off sheet indicating that the ride maintenance employee has inspected the ride and gives operations the OK to proceed with putting the ride into operation. It should be signed, dated with the time of day noted.
- If ride perimeter access is needed during the operating day while the ride is operating, ride operations must be notified, the ride must be either locked out or “motion stop” engaged before granting permission for someone to enter the ride perimeter.
- “Ride-in-motion” procedures for someone to safely observe ride motion would require modifying ride fencing to allow maintenance personnel access to locations where they cannot be struck while monitoring the ride vehicle while it is in motion.