



Standard Practice for Ownership, Operation, Maintenance, and Inspection of Amusement Rides and Devices¹

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1. Scope

1.1 This practice provides guidelines for operations, maintenance, and inspection procedures for amusement rides and devices to be performed by the owner/operator.

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F853 Practice for Maintenance Procedures for Amusement Rides and Devices

F1193 Practice for Quality, Manufacture, and Construction of Amusement Rides and Devices

3. Significance and Use

3.1 The purpose of this practice is to delineate information and to establish procedures for the operation of amusement rides and devices.

4. Owner/Operator's Responsibility

4.1 Each owner/operator of an amusement ride or device shall read and become familiar with the contents of the manufacturer's recommended operating instructions and specifications, when received. Each owner/operator shall prepare an operating fact sheet. This fact sheet shall be made available to each ride or device operator and attendant of the amusement ride or device. The owner's/operator's fact sheet (on a ride-by-ride basis) shall include but not be limited to:

4.1.1 Specific ride or device operation policies and procedures with pertinent information from the manufacturer's instructions.

4.1.1.1 Description of the ride or device operation.

4.1.1.2 Duties of the specific assigned position of the ride or device operator or attendant.

4.1.1.3 General safety procedures.

4.1.1.4 Additional recommendations of the owner/operator.

4.1.2 Specific emergency procedures in the event of an abnormal condition or an interruption of service.

4.1.3 The owner/operator shall provide training for each ride or device operator and attendant of an amusement ride or device. This training shall include but not be limited to the following, where applicable:

4.1.3.1 Instruction on ride or device operating procedures.

4.1.3.2 Instructions on specific duties of the assigned position.

4.1.3.3 Instructions on general safety procedures.

4.1.3.4 Instructions on emergency procedures.

4.1.3.5 Demonstration of the physical ride or device operation.

4.1.3.6 Supervised observation of the ride or device operator's physical operation of the ride or device.

4.1.3.7 Additional instructions deemed necessary by the owner/operator.

4.1.4 The ride or device operator of each amusement ride or device shall conduct a daily pre-opening inspection of each ride or device prior to carrying passengers. This inspection shall include but not be limited to the following:

4.1.4.1 Visual check of all passenger-carrying devices, including restraint devices and latches.

4.1.4.2 Visual inspection of entrances, exits, stairways, and ramps.

4.1.4.3 Test of all communications equipment necessary for the operation of the ride or device.

4.1.4.4 Prior to carrying passengers, the ride or device shall be operated for a minimum of one complete operating cycle.

4.2 The owner/operator of an amusement ride or device may deny entry to the ride or device to any person, if in the opinion of the owner/operator the entry may cause above normal exposure to risk of discomfort or injury to the person who

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

desires to enter, or if in the opinion of the owner/operator the entry may jeopardize the safety of other patrons or employees.

4.2.1 Ride or device operators should be given guidelines on the special considerations concerning patron size, and the special considerations applicable to physically disabled and mentally impaired patrons, related to their particular ride or device.

4.3 Signs presented by the owner/operator for instruction to the public shall be prominently placed, bold in design, with wording short, simple, and to the point.

4.3.1 Signs to display operational instructions or requirements, or both, for use of the amusement ride or device may be posted at the waiting/loading area or other appropriate location and may include height requirements and other duties and obligations of the passengers such as but not limited to those listed in Section 5.

4.3.2 Entrances to machinery rooms or restricted areas, or both, should be posted when necessary to warn unauthorized persons not to enter.

5. Patron Responsibility

5.1 There are inherent risks in the participation in or on any amusement ride, device, or attraction. Patrons of an amusement ride, device, or attraction, by participation, accept the risks inherent in such participation of which the ordinary prudent person is or should be aware. Patrons have a duty to exercise good judgment and act in a responsible manner while using the amusement ride, device, or attraction and to obey all oral or written warnings, or both, prior to or during participation, or both.

5.2 Patrons have a duty to not participate in or on any amusement ride, device, or attraction when under the influence of drugs or alcohol.

5.3 Patrons have a duty to properly use all ride or device safety equipment provided.

6. Maintenance Program Requirements (from Practice F853)

6.1 Each owner/operator of an amusement ride or device shall read and become familiar with the contents of the manufacturer's maintenance instructions and specifications when received, as provided in 3.1. Based on the manufacturer's recommendations, each owner/operator shall implement a program of maintenance, testing, and inspection providing for the duties and responsibilities necessary in the care of each amusement ride or device. This program of maintenance shall include a checklist to be made available to each person performing the regularly scheduled maintenance on each ride or device. The owner/operator's checklist (on a ride-by-ride basis) shall include but not be limited to:

6.1.1 Description of preventive maintenance assignments to be performed.

6.1.2 Description of inspections to be performed.

6.1.3 Special safety instructions, where applicable.

6.1.4 Any additional recommendations of the owner/operator.

6.2 The owner/operator of the amusement ride or device shall provide training for each person performing the regularly scheduled maintenance on the ride or device, pertaining to their assigned duties. This training shall include, but not be limited to, the following:

6.2.1 Instruction on inspection and preventive maintenance procedures.

6.2.2 Instruction on the specific duties of the assigned position.

6.2.3 Instruction on general safety procedures.

6.2.4 Demonstration of the physical performance of the assigned regularly scheduled duties and inspections.

6.2.5 Supervised observation of the maintenance person's physical performance of their assigned regularly scheduled duties and inspections.

6.2.6 Additional instructions deemed necessary by the owner/operator.

6.3 Prior to carrying passengers, the owner/operator shall conduct or cause to be conducted a daily documented and signed preopening inspection, based on provided instructions, to ensure the proper operation of the ride or device. The inspection program shall include, but not be limited to, the following:

6.3.1 Inspection of all passenger-carrying devices, including restraint devices and latches.

6.3.2 Visual inspection of entrances, exits, stairways, and ramps.

6.3.3 Functional test of all communication equipment necessary for the operation of the ride.

6.3.4 Inspection or test of all automatic and manual safety devices.

6.3.5 Inspection or test of the brakes, including service brakes, emergency brakes, parking brakes, and back stops.

6.3.6 Visual inspection of all fencing, guarding, and barricades.

6.3.7 Visual inspection of the ride structure.

6.3.8 The ride or device shall be operated for a minimum of one complete operating cycle.

6.4 An amusement ride or device, or the specifically affected element, shall be appropriately inspected and operated, without passengers, to determine that it is functioning properly following an unscheduled cessation of operation caused by:

6.4.1 Malfunction or significant adjustment, or

6.4.2 Mechanical, electrical, or operational modification, or

6.4.3 Environmental conditions that affected the operation, or any combination of the three.

6.5 The owner/operator will maintain appropriate water quality within an amusement ride or device where the guest can reasonably be expected to ingest or contact water volume sufficient to pose a substantial health risk.

6.6 *Replacement Parts for Amusement Rides and Devices:*

6.6.1 Replacement parts for amusement rides and devices shall be:

6.6.1.1 Procured from the original manufacturer of the amusement ride or device, using the appropriate manufacturer-supplied identifying nomenclature; or

6.6.1.2 Procured or produced using appropriate original manufacturing drawings or specifications, or both, if available; or

6.6.1.3 Procured or produced using specifications derived from sufficient analysis to ensure parts of equivalent functions and quality, to those provided by the original manufacturer and in accordance with Practice F1193.

6.6.2 The manufacture of replacement parts for amusement rides or devices shall conform to the applicable sections of Practice F1193.

6.7 The owner/operator shall be responsible for implementing a program of testing based on the recommendations of the section on Non-Destructive Testing Requirements of Practice F1193.

7. Inspection Program Requirements

7.1 Owner/operators of amusement rides or devices shall have an inspection program consistent with the inspections outlined in Practices F770 and F1193.

7.2 Inspection documents deemed appropriate by the owner/operator to be maintained in the ride file shall be filed in accordance with the procedures outlined in Practices F770 and F1193.

7.3 The owner/operator of an amusement ride or device shall promptly notify the manufacturer of an incident, failure, or malfunction which, in his judgment, seriously affects the continued proper operation of the ride or device and is information of which the manufacturer should be aware.

8. Classification of Injuries and Illnesses

8.1 Recording Recommendations:

8.1.1 The administration of emergency health care service and treatment should be recorded as deemed appropriate by the owner/operator of amusement rides and devices to include the documentation of all first-aid treatment, including minor injuries and illnesses, in a first-aid log. Injuries and illnesses other than minor should be reported on a first-aid incident report in accordance with 8.1.2.

8.1.2 *First-Aid Incident Report*—A first-aid incident report should be completed for injuries or illnesses that result in hospital admission or where medical treatment is given, recommended, or may be required at a future date. All injuries or illnesses reported and other than those classified as minor, can be presumed to be in this category.

8.1.3 *Recorded Information*—Information recorded in the first-aid incident report should include, but not be limited to, the following, where applicable:

8.1.3.1 Date the incident occurred.

8.1.3.2 Name, address, and telephone number of the person to receive emergency health care service or treatment.

8.1.3.3 Age of the person to receive emergency health care service or treatment.

8.1.3.4 Manufacturer's name of the amusement ride or device where or on which the incident occurred.

8.1.3.5 Description of the injury or illness. Physical description of the injury or illness. Description of the events causing and related to the incident.

8.1.3.6 Description of the first-aid service or treatment administered, including medications given.

8.1.3.7 Incident classification in accordance with 8.2.

8.1.3.8 Additional information deemed necessary by the owner/operator.

8.2 *Classification of First-Aid Incidents*—When recording an applicable first-aid-related incident, the owner/operator of an amusement ride or device should classify the injury or illness in accordance with each of the following categories based on the available reported or observed reliable information, or both:

8.2.1 *Amusement Ride and Device Incidents Classified in Accordance with Injury Qualification and Degree of Injury*—Injury, illness, serious injury/illness, and minor injury/illness should be determined by the owner/operator to best describe the incident circumstances.

8.2.2 *Amusement Ride and Device Incidents Classified in Accordance with Facility Implication:*

8.2.2.1 *Facility-Related Incidents*—Injuries or illnesses that occur on facility premises shall be additionally classified as “Facility Related.”

8.2.2.2 *Not-Facility Related Incidents*—Injuries or illnesses that occur off facility premises shall be additionally classified as “Not Facility Related.”

8.2.3 *Amusement Ride and Device Incidents Classified in Accordance with Facility Location:*

8.2.3.1 *Amusement Ride and Device on Ride Incident*—Injuries or illnesses that actually occur to a person while riding during the operation of the amusement ride or device, including during the start-up or shut down procedures, shall be additionally classified as an amusement ride and device “On Ride Incident.”

8.2.3.2 *Loading and Unloading Incidents*—Injuries or illnesses that actually occur to a person while he is within the area designated for loading and unloading of an amusement ride or device that was under the direct control of an amusement ride and device operator or attendant shall be additionally classified as a “Loading and Unloading Incident.”

8.2.3.3 *Queue Line Incident*—Injuries or illnesses that actually occur to a person while in a queue line for an amusement ride or device shall be additionally classified as a “Queue Line Incident.”

8.2.3.4 *Other Incidents*—Injuries or illnesses that occur to a person in a location other than as described in 8.2.3.1, 8.2.3.2, or 8.2.3.3 shall be classified as other than the preceding classifications and should be categorized in accordance with other predetermined descriptions that may be established by the owner/operator.

8.3 *Manufacturer Notification*—The owner/operator of an amusement ride or device shall notify the appropriate manufacturer(s) of an incident that resulted in a serious injury within seven days of the occurrence of the incident

9. Information Transferred with Used Amusement Rides and Devices

9.1 Seller's Requirements:

9.1.1 The seller of a used amusement ride or device shall provide to the new owner existing manufacturer's documentation in the seller's possession.

9.1.2 The seller of a used amusement ride or device shall provide to the new owner written notice of major modifications the seller has made or caused to be made, and component operational and maintenance manuals in the seller's possession.

9.2 Purchaser's Requirements:

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9.2.1 The purchaser of a used amusement ride or device shall notify the original manufacturer of the ride or device being purchased of the change in ownership of the ride or device.

9.2.2 The purchaser shall request from the original manufacturer all updated owner, operational, and maintenance manuals and service bulletins.

10. Keywords

10.1 amusement rides and devices; operating procedures