

**SAFETY AND OVERSIGHT
OF AMUSEMENT RIDES
IN CALIFORNIA**

By

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INTRODUCTION

According to the latest estimates, California has 71 permanent amusement parks, 74 carnival owners/operators, and an untold number of other businesses that have one or more permanent rides.¹ Six of the 15 most attended amusement parks in North America are in California.² However, California also has a sizable number of small or seasonal parks: 58 percent of the state's amusement parks employ less than 20 persons.³ Given the large number of amusement parks, many people are surprised to discover that California is one of only 10 states that does not have specific state oversight over permanent amusement parks or rides.⁴

On June 2, 1996, one teenager died and 32 others were injured when a section of a waterslide ripped apart at the seams and collapsed. Following the accident at Waterworld USA's Concord park, many people have questions about if and how the state of California should regulate permanent amusement rides. To help answer these questions, Assembly Members Tom Torlakson and Valerie Brown asked the California Research Bureau to answer the following three questions:

1. What are the accident data on permanent amusement park rides?
2. What are California's laws regarding regulation of amusement park rides, and why are they the way they are?
3. What do other states do to ensure ride safety?

The purpose of this report is to answer those questions.

ORGANIZATION OF REPORT

This paper is organized in two parts. First, we discuss the amusement ride accident data. We attempt to answer questions such as:

- How many people die or are injured each year as a result of amusement rides?
- Why might these data be an inappropriate measure of risk?

Next we describe the amusement ride laws and regulations. We start with California's amusement ride safety laws. After a brief history of California's laws, we describe California's current laws and regulations. Then, we describe how other states regulate amusement ride safety. Again, we start with a brief history of amusement ride safety laws -- from a national perspective. Then we provide an overview of how other states approach the ride safety issue.

Finally, we draw some conclusions.

We have also included two appendices. Appendix A is a more thorough accounting of the evolution of laws affecting California's amusement rides. Appendix B presents greater detail on how each of the states and the District of Columbia regulates amusement rides.

AMUSEMENT RIDE ACCIDENTS

Whenever one hears of a serious or fatal accident associated with an amusement ride, it is natural to ask, "How many people are hurt on amusement rides each year?" Unfortunately, the answer is, "Well, we aren't very sure, but we don't think it is a lot."

The difficulty is that there is no comprehensive source for amusement ride accident data. No federal law or national agency requires all ride operators in every state to file accident reports. Similarly, no California law requires all ride operators -- both permanent and mobile rides -- to report all accidents to the state. Nationally, most regulated parks are required to report accidents to their regulating state agency and/or their insurance company. However, the reporting requirements are not uniform and the information is generally not available to the public. As a result, it is impossible to obtain accurate and complete accident data.

Nonetheless, some information is available. The federal Consumer Product Safety Commission (CPSC) does have jurisdiction over mobile rides, as well as a general interest in overall ride safety. Also, most catastrophic accidents receive media coverage. Thus, there is generally enough information to provide a broad sense of amusement ride safety and a more specific sense of catastrophic risk.

DATA AVAILABILITY IS LIMITED

Nationally, the CPSC maintains the most comprehensive data on amusement ride accidents. They document amusement ride fatalities and estimate amusement ride injuries.⁵ CPSC numbers are widely quoted by industry associations. Industry analysts use these data along with their own estimates of park attendance to estimate the likelihood of amusement ride accidents. Likewise, the industry uses CPSC data to measure the safety of the industry as a whole. CPSC numbers are also frequently included in states' reports and other amusement ride safety studies.

States with amusement ride oversight usually maintain statewide accident data. Some states publish detailed information while others do not. Nonetheless, regulators in most states with oversight can describe the general safety of amusement rides in their state even if specific numbers are not available.

Limited, if any, information is available from states with no oversight. In California, for example, the Department of Industrial Relations' Division of Occupational Safety and Health (Cal-OSHA) collects accident reports about mobile rides -- such as those at traveling carnivals or county fairs. However, as explained in the next section, no state agency has oversight of permanent parks.

Consequently, the state does not collect accident data from these parks. Insurance companies collect data from their insured, but they do not make the data publicly available. Newspaper accounts usually reveal accidents involving serious injury or death, but other accidents are often unreported.

INJURIES FROM AMUSEMENT RIDES

Data on non-fatal injuries are difficult to obtain and often do not exist. Many states and insurance companies do not require ride operators to report minor injuries. The CPSC estimates injuries based on surveys of hospital emergency rooms. While these estimates probably capture most serious injuries, the actual number of total injuries is likely to be higher. Many minor injuries do not require a trip to the emergency room and may instead be treated with first aid at the site, at home, or at a doctor's office.

For 1996, the CPSC estimated that 8,300 non-occupational injuries occurred on amusement rides, up from their estimate for 1995 of 7,500. Of the 1996 injuries, they estimated about 2,900 involved mobile-site rides, 4,200 involved fixed-site rides, and 1,200 involved rides at unknown sites. (See Table 1). The CPSC estimates that 1.4 percent of the injuries required an overnight hospital stay.

Table 1 U.S. Amusement Ride Injuries in 1996		
Ride Site	Estimate	Percent
Fixed	4,224	51%
Mobile	2,921	35%
<u>Unknown</u>	<u>1,189</u>	<u>14%</u>
Total	8,335	100%
Source: C. Craig Morris, <i>Deaths and Injuries Associated With Amusement Rides</i> , Consumer Product Safety Commission, May 9, 1997.		

The International Association of Amusement Parks and Attractions (IAAPA) estimates that each year in the United States there are approximately 500 million visits to ride facilities* and billions of rides taken. Using CPSC's injury estimates and assuming two rides per visitor, they report the odds of being injured seriously enough to be hospitalized are about one in seven million.

* 290 million visits to 800 fixed-site amusement parks and 210 million visits to traveling sites.

DEATHS FROM AMUSEMENT RIDES

Data on deaths associated with amusement rides are more precise and easier to obtain than are data on injuries. The CPSC documents actual deaths -- their fatality data are not estimates.* The CPSC reports 102 non-occupational fatalities on amusement rides from 1973 through 1996, an average of 4 per year. These include 31 mobile-site fatalities, 48 fixed-site fatalities and 23 fatalities at unknown sites. Most of the fatalities at unknown sites occurred in the 1970s, before the more detailed record keeping of today. The CPSC numbers include only accidents reported to them and do not account for all deaths. The CPSC also reports 29 fatalities of ride operators or other park employees. Again, using the CPSC numbers and assuming two rides per visitor, the IAAPA reports the odds of a fatality are one in 250 million.

The 102 non-occupational fatalities occurred in 36 states, with 7 states experiencing 6 or more deaths. California had more reported deaths than any other state with 12, followed by New York with 9. (See Table 2). The 48 fixed-site fatalities occurred in only 16 states. Again, California led the way with 10, followed by Missouri with 6. Neither California nor Missouri regulates fixed-site amusement parks.

The states with the highest number of accidents appear to be highly populated states with large numbers of amusement parks. This is not surprising. Although the exact number of amusement rides in each state is not available, because of the greater number of parks and larger populations in these states, we would expect more accidents to occur.

* That does not mean that the data are either 100 percent complete or 100 percent accurate. For example, CRB investigations suggest that one of the “non-occupational” fatalities in California was in fact an employee of the amusement park.

Table 2
States With Three or More Amusement Ride Fatalities
(excludes park employees)
1973-1996

State	Site				State Regulated Sites	
	Fixed	Mobile	Unknown	Total	Fixed	Mobile
California	10	0	2	12	no	yes
New York	4	2	3	9	yes	yes
Florida	0	5	2	7	yes	yes
Illinois	4	2	0	6	yes	yes
Missouri	6	0	0	6	no	no
New Jersey	5	0	1	6	yes	yes
Texas	3	3	0	6	yes	yes
Ohio	1	1	2	4	yes	yes
Wisconsin	0	3	1	4	yes	yes
Colorado	0	1	2	3	yes	yes
Maine	1	0	2	3	yes	yes
Pennsylvania	0	3	0	3	yes	yes
South Carolina	3	0	0	3	yes	yes
Utah	2	1	0	3	yes	yes ⁶

Source: C. Craig Morris, *Addendum to Deaths and Injuries Associated With Amusement Rides*, Consumer Product Safety Commission, May 19, 1997.

WATERPARKS

The data do not tell us whether or not waterparks are more dangerous than other types of amusement parks. The World Waterpark Association (WWA) indicates there are approximately 950 facilities across the U.S. In 1996, waterpark attendance reached 58 million, up from 54.5 million in 1995.⁷ The CPSC reports 17 deaths from waterslide-related accidents⁸ between January 1980 and December 1996 although not all of these occurred in waterparks. For 1995 and 1996, the WWA is aware of two drownings in each year. As of August, we are aware of two fatal accidents at waterparks this year: a drowning in New Jersey, and the waterslide collapse in Concord, California.

Waterslide Collapses

We know of four cases of waterslide collapses in the U.S., two in California. News accounts indicate that two were caused by manufacturing defects and two from overcrowding the slides. The first three occurred in the early 1980s within 14 months of each other. The fourth occurred nearly 16 years later in 1997.

The first accident was in 1980 at an amusement complex in Memphis, Tennessee where a 50-foot-high waterslide broke, injuring fourteen people. Investigators determined there were too many riders on the slide at the time and there were violations of posted safety rules.⁹

The second also occurred in 1980 at Fun Pier in Wildwood, New Jersey. A section of a waterslide gave way, dropping six riders about 30 feet to a pier and beach below. None of the riders were seriously hurt. Investigators blamed the collapse on the failure of Plexiglas and ordered the slide closed and the plastic panels replaced. It has since reopened.¹⁰

The third accident occurred in August 1981 at the Big O waterslide in Orange, California. In this case, a side wall of a chute cracked and then broke open as riders slid over it. One rider crashed through the hole and he and another rider dangled out of the tube about 40 feet above the ground. They managed to climb back into the slide, but were seriously cut by the plastic edge while doing so. Four other riders were also injured. This plastic was stronger than the Plexiglas involved in the New Jersey accident.¹¹

The most recent accident occurred in June 1997 at Waterworld USA in Concord, California. Here, a chute, overloaded with riders, snapped, sending 33 riders to the pavement below. One rider was killed and 32 injured, 10 seriously.¹²

DATA PROBLEMS AND RISK ASSESSMENT

People die from amusement ride accidents. As mentioned above, 12 people have died in California alone since 1973. (Approximately 115,000 people died from traffic accidents in California during the same period.) From the available data, we are reasonably certain that the risk of death is relatively low. However, most amusement ride accidents result in injury, not death, and those data are not uniformly collected and are much harder to find. Thus, they are not very useful for assessing amusement ride accident risk.

The CPSC estimates of non-fatal injury accidents are based on national surveys of hospital emergency rooms. While their estimates are useful, they provide limited information about the true nature of amusement ride injuries. Because the data are national estimates, they give no information about whether fewer accidents occur in states with or without state oversight, which parks or rides have the most injuries, and perhaps most importantly, the cause of the accidents.

There is widespread belief among industry officials, as well as many state inspection departments, that at least 75 percent of amusement ride accidents stem from horseplay or inattention on the part of riders. Anecdotal evidence suggests they may be right, but there are no meaningful statistics to confirm this belief.

Just as importantly, even if the accident information were complete, accidents still tell only part of the story. Without accurate and detailed information about park attendance and the number of rides taken on each ride, there is no way to know the opportunity for injury, and thus, to assess

amusement ride risk. This is true even in the fatality cases where the data are much more comprehensive. Most parks track their own attendance, but usually do not release the information. Industry associations provide estimates of total park attendance, but do not provide detail. The number of rides taken is estimated from the park attendance figures, but not broken out by ride.

AMUSEMENT RIDE LAWS & REGULATIONS

When we discuss regulating amusement safety, there are four aspects of safety to consider:

1. Designing rides to be safe
2. Building rides to be safe
3. Maintaining rides to be safe
4. Operating rides to be safe

Designing rides to be safe means more than ensuring the structural integrity of the ride, or ensuring the ride will be safe when used as designed. It also means considering in the design how people might use the ride. For example, if a ride is not safe if more than one person is on it at a time, a safe design would include features to prevent two or more persons from being on the ride at the same time.

Building rides to be safe means to ensure that the ride is built according to the safe design. Maintaining rides to be safe means to ensure that all rides receive proper maintenance.

Operating rides to be safe means two things. First, it means ensuring that operators operate the ride consistent with the design and maintenance requirements. At the very least this means that ride operators know and follow all passenger safety requirements. Second, it means ensuring that riders use the ride consistent with the designed safety requirements. For example, this means ensuring that passengers know to stay seated until the ride comes to a complete stop.

CALIFORNIA

Many people are surprised to discover that while California does regulate mobile amusement rides and bungee jumping, the State does not directly regulate permanent amusement rides. However, that does not mean that permanent rides are completely unregulated. All permanent rides are subject to local building codes. Also, the State does regulate some aspects of permanent amusement park rides, such as aerial tramways. Finally, private companies, such as insurance companies, and non-governmental agencies, such as the American Society for Testing and Materials, have established standards regarding the design, construction, and operation of permanent rides.

The purpose of this section is twofold. First, we briefly describe how the laws came to be. Second, we describe the State and local laws and other private and non-governmental requirements.

Brief History

For the last 30 years, the history of amusement park safety laws is a history of legislative reaction to high profile accidents. Until the late 1960s, neither California nor the federal government treated amusement parks, carnivals, and rides any different than any other business or piece of equipment. Like most businesses, permanent amusement parks were subject to local building codes. However, they were not subject to any special state or federal oversight. Similarly, traveling carnivals received no special treatment. This began to change because of an accident at the Kern County Fair.*

On September 26, 1967, a teenage girl died when she was thrown from a carnival ride at the Kern County Fair. In response, Assemblymember George Zenovich (D-Fresno) introduced Assembly Bill 888, on March 6, 1968. This bill established the Amusement Rides Safety Law. The bill originally would have regulated all amusement rides in California. However, when the bill reached the Senate floor for a final vote, Senator George Danielson (D-Los Angeles County) amended the bill. His amendments excluded permanent rides from state oversight.

Senator Danielson reportedly said permanent amusement parks, such as Disneyland, requested the amendments because they were already covered by building code provisions.¹³ More recently, now-lobbyist Zenovich told the Sacramento Bee that the Walt Disney Co. lobbied against the bill arguing that “they had their own safety system and the state shouldn’t oversee their operation.”¹⁴

With those amendments, the bill became law.¹⁵ The Amusement Rides Safety Law then went unchallenged for the next ten years.

Nationally, Congress passed the Consumer Product Safety Act in 1972.¹⁶ The Act established the Consumer Product Safety Commission (CPSC). The CPSC held, and the courts affirmed, that amusement park rides were consumer products.¹⁷ Therefore, under other provisions of the Act, the CPSC could and did regularly inspect both permanent and mobile amusement rides.

In 1978 there were a number of serious accidents at California amusement parks. The next year, Senators Bill Greene and Alan Sieroty introduced the first in a series of unsuccessful attempts to remove the state exemption for permanent amusement rides. Others who tried were Assemblymember Richard Floyd in 1981, and Senator John Garamendi in 1987.

In 1983, Senator Ray Johnson carried a bill that clarified and strengthened the Amusement Rides Safety Law. The changes applied only to mobile rides. Most of the provisions previously had

* For a more thorough history, see Appendix A.

been in Assemblymember Floyd's unsuccessful bill. Senator Johnson's bill received wide support. The bill made it through the entire legislative process without a single vote being cast against it and became law.¹⁸

Nationally, Congress passed the federal Omnibus Budget Reconciliation Act in 1981.¹⁹ One of the provisions of this act removed CPSC's jurisdiction over permanent amusement rides. In 1984 and again in 1985, Paul Simon of Illinois led an effort to reinstate CPSC jurisdiction over permanent rides. Both attempts failed.

On October 27, 1991, a 29-year-old man fell to his death near Perris, California in the nation's first fatal bungee jumping accident. The next year Assemblymember Paul Horcher introduced AB 2778. The bill as enacted specifically included bungee jumping in the list of amusement rides under state regulation.²⁰

By 1996, 10 states had adopted so-called rider responsibility laws. Such laws set down rules of conduct of patrons of the states' amusement parks and theme parks. That year Assemblymember Curt Pringle introduced AB 2482. Sponsored by Knott's Berry Farm, the bill proposed to create the California Rider Safety Act. The bill was heavily amended. Ultimately, the only remaining provisions were those allowing amusement parks to detain and eject persons suspected of violating lawful park rules. It was this stripped down bill that became law.²¹ This year Assemblymember Pringle has introduced AB 1289 to again try to enact a rider responsibility law.

Current California Laws

California directly regulates mobile amusement rides through the Amusement Rides Safety Law. However, the state does not directly regulate permanent rides or parks. Instead, cities and counties exercise regulatory oversight over permanent rides and parks through local building codes. We describe those laws and regulations next.

Amusement Rides Safety Law

The Amusement Rides Safety Law²² establishes the State's authority to regulate mobile amusement rides. The law defines amusement rides as:

A mechanical device which carries or conveys passengers along, around, or over a fixed or restricted route or course for the purpose of giving its passengers amusement, pleasure, thrills, or excitement. "Amusement ride" includes the business of operating bungee jumping services or providing services to facilitate bungee jumping ...

The following are exempt from the law:

- Permanent amusement rides,
- Slides or playground equipment,
- Coin-operated devices, such as mechanical rocking horses, and
- Articles of husbandry incidental to any agricultural operations, such as pony rides.

The Department of Industrial Relations' Division of Occupational Safety and Health (Cal-OSHA) administers the law. Cal-OSHA also promulgates and formulates rules and regulations for adoption by the Occupational Safety and Health Standards Board. The rules and regulations are to cover the installation, repair, maintenance, use, operation, and inspection of all mobile amusement rides.* The law states that the rules and regulations are in addition to existing safety orders and are to be concerned with engineering force stresses, safety devices, and preventive maintenance.

The law requires rides to be inspected before they are put into operation for the first time and at least once a year thereafter. Rides may also be inspected each time they are disassembled and reassembled. The inspections must be made by Cal-OSHA's safety inspectors or by a qualified inspector who is approved by the division and is employed by an insurance company or a public entity.**

If a mobile ride causes either a fatality or an injury that requires more than ordinary first aid, the operator must notify Cal-OSHA immediately. If the injury was caused by the failure or malfunction of an amusement ride, the operator must preserve the scene for inspection by Cal-OSHA. If Cal-OSHA's inspection shows the ride to be hazardous or unsafe, Cal-OSHA may order a temporary cessation.

The owner or operator of a mobile amusement ride must have \$500,000 liability insurance on file with Cal-OSHA.

Rules and Regulations

The Occupational Safety and Health Standards Board has adopted specific regulations governing mobile amusement rides.²³ Some of these regulations simply clarify the statutes. For example, the regulations define "public entity" as any city or county. Other regulations set requirements

* See next section.

** The regulations define "public entity" to mean any city or county.

for the design and manufacture of rides. Such requirements include:

- For all new model rides, the manufactures, fabricators or owner/operators must furnish stress analysis and other data pertinent to the design, structure, factors of safety and performance characteristics.
- The division can require load tests or nondestructive tests of rides or components of rides.
- If cars might collide on a ride, the ride must have emergency brakes.
- Rides which use incline tracks must have automatic anti-rollback devices.
- Certain types of rides must have signal systems that warn operators against dispatching other passenger carrying units until the track is clear.
- The parts of a ride with which passengers could come into contact must be smooth and free from sharp, rough or splintered edges and corners. Rides must have appropriate padding.
- The division can require rides to install safety restraining devices.

The regulations also define the maintenance and assembly and disassembly rules. For example:

- All amusement rides must be inspected and tested each day before they are used.
- An “authorized person” must perform the inspection and tests. The regulations define an “authorized person” as “[A] competent person, experienced and instructed in the work to be performed and who has been given the responsibility to perform his duty by the owner or their representative.”²⁴
- The inspection and operation tests must include the operation of control mechanisms, speed limiting devices, brakes, fasteners, and other safety equipment.
- An authorized person, or someone under his or her supervision, must assemble and disassemble all amusement rides.
- During assembly, close visual inspection of parts must be made to discover any wear or damage.
- After assembly and before the ride is placed in service, inspection of fastening devices must be made to assure that they have been properly installed.

Other State of California Laws

Besides the Amusement Rides Safety Law, a number of state laws directly affect the public safety aspects of some amusement park rides and attractions.

Aerial Trams & Gondolas

Cal-OSHA also has jurisdiction over aerial passenger tramways.²⁵ This authority applies equally, for example, to gondolas at a ski resort or at permanent amusement parks. Among the requirements is that the division must inspect all aerial tramways at least twice a year.

As with amusement rides, the Occupational Safety and Health Standards Board has adopted specific regulations governing aerial passenger trams.²⁶ These regulations are more strict than those for amusement rides. For example, tramway inspectors must be registered engineers that

have passed both a written and field examination conducted by the Division. Tramways must have written evacuation plans and there must be an evacuation drill each operating season. Owner/operators of aerial trams must have training and education programs for individuals hired to operate or work on tramways. There are specific regulations for each type of tramway as well.

Health Services -- Swimming Pools

Many amusement parks, such as Waterworld USA, have swimming pools. The Department of Health Services has jurisdiction over the operation, maintenance and use of public swimming pools.²⁷ Such authority includes the quality and purity of the water, lifesaving and other measures to ensure the safety of bathers, and measures to ensure personal cleanliness of bathers. Department of Health Services has adopted rules and regulations further clarifying the precise requirements regarding public swimming pools.²⁸ These regulations relate principally to sanitation issues.

California Building Code

Under the State Building Standards Law,²⁹ the California Building Standards Commission adopts the California Building Standards Codes. These codes define the materials, methods, and process specifications for constructing or altering all buildings and structures. The codes focus primarily on ensuring structural integrity and fire safety. The codes generally meet or exceed any national specifications, published standards, or model codes. Cities and counties can adopt more strict standards.

The codes have special rules or orders for certain types of buildings and structures. For example, the codes define “Amusement Building” as:

a building or portion thereof, temporary or permanent, used for entertainment or educational purposes and which contains a system which transports passengers or provides a walkway through a course so arranged that the required exits are not apparent due to theatrical distractions, are disguised or not readily available due to the method of transportation through the building or structure.³⁰

The codes require that amusement buildings meet specific fire safety requirements. For example, amusement buildings must have a public address system that is audible throughout the building.

The California Building Standards Code does not have any other special rules or orders for amusement parks or rides.

Local Laws

Without State authority over permanent amusement rides or parks, the bulk of the responsibility for oversight falls on local government -- cities and counties. Typically, the oversight is through local building codes.

Building Standards

Most cities and counties have adopted the current provisions of California Building Standards Code for their jurisdiction. These codes require that before one can construct or alter a structure, such as a permanent amusement ride, one must get a building permit.³¹ To get a permit, the applicant must include plans, specifications, engineering calculations, diagrams, soil investigation reports, special inspection and structural observation programs, and any other data the local building official might require. The local building official reviews the information to ensure that the plans meet or exceed the local building code's requirements. Again, the focus is principally on ensuring structural integrity and fire safety. Once the local building official issues a building permit, the applicant can begin construction. However, the applicant cannot deviate from the approved plans and specifications without prior approval of the local building official.

All construction or work that requires a building permit is subject to inspection.³² The building inspector's purpose is to ensure that the building or structure is built according to approved plans.

Insurance Company Requirements & Industry Standards

Government is not the only one interested in amusement park safety. Two other key players are the insurance companies and the American Society for Testing and Materials.

Insurance Companies

Some large amusement parks are self-insured. However, many amusement parks and by law all carnivals carry liability insurance. Most significant insurance companies require their own annual inspection before insuring amusement rides. They use some criteria to do so. However, we have been unable to determine what these criteria are, or how they affect amusement ride operations.

American Society for Testing and Materials

The American Society for Testing and Materials (ASTM) is a not-for-profit organization that develops consensus based national standards for materials, products, systems, and services. ASTM standards are developed voluntarily and used voluntarily. Nationally, ASTM standards are used by thousands of individuals, companies, and agencies. In particular, many government agencies reference them in codes, regulations, and laws.³³

The ASTM has established nine standards specifically relating to amusement rides and devices.³⁴ These standards are:

- Specification for Physical Information to be Provided for Amusement Rides and Devices,
- Definitions of Terms Relating to Amusement Rides and Devices,
- Practice for Operation Procedures for Amusement Rides and Devices,
- Guide for Testing Performance of Amusement Rides and Devices,
- Practice for Maintenance Procedures for Amusement Rides and Devices,
- Guide for Inspection of Amusement Rides and Devices,
- Practice for the Design and Manufacture of Amusement Rides and Devices,

- Practice for an Amusement Ride and Device Manufacture Quality Assurance Program, and
- Guide for the Classification of Amusement Ride and Device Related Injuries and Illnesses.

The ASTM standards vary in their specificity. Some are very specific. For example the standard for the design and manufacture of amusement rides and devices specifies:

5.1) The weight assigned to an adult passenger, for design purposes, shall be 170 lb. (77 kg.) or 12 lb./in. (5.4 kg./25.4 mm.) of hip width at the seat, whichever is greater.³⁵

Yet the standards are silent on the maximum forces that a ride can subject its passengers. Also, while computer software is becoming more and more critical to the safe operation of amusement rides, the ASTM has not set standards for software as well.

These standards cover the full range of amusement rides and devices, both permanent and mobile. The standards establish minimum requirements and are not intended to be definitive. The ASTM standards come closest of any state or federal regulation to addressing all four aspects of ride safety that we discussed above. In California, compliance with ASTM amusement ride standards is up to the individual ride owner or operator. In other states, compliance is mandatory.

OTHER STATES

Forty-five states (including the District of Columbia) have some type of amusement ride oversight program, as do many local jurisdictions. State regulations focus mainly on the construction and maintenance aspects of safety, primarily through building codes and regular inspections. Many states also address operational aspects through ride operator guidelines. Few, if any, regulate ride design aspects.

The scope of the oversight in most states includes amusement rides at either permanent or mobile parks or both.³⁶ It may also include waterparks, go-cart tracks, bungee jumping, inflatable rides, and ski-lifts and trams.³⁷ Forty-one states oversee both permanent parks and mobile parks to *some* extent. (See Table 3.)

Table 3
States Which Oversee Both Permanent and Mobile Parks

Alaska	Arizona	Arkansas
Colorado	Connecticut	Delaware
Florida	Georgia	Hawaii
Idaho	Illinois	Indiana
Iowa	Kentucky	Louisiana
Maine	Maryland	Massachusetts
Michigan	Minnesota	Nebraska
Nevada	New Hampshire	New Jersey
New Mexico	New York	North Carolina
Ohio	Oklahoma	Oregon
Pennsylvania	South Carolina	Tennessee
Texas	Utah	Vermont
Virginia	Washington	West Virginia
Wisconsin	Wyoming	

Compiled by the California Research Bureau, California State Library.

Four states oversee mobile parks only, including California, Mississippi, Rhode Island, and the District of Columbia. Six states have no state oversight programs. They are Alabama, Kansas, Missouri, Montana, North Dakota, and South Dakota.

History of States' Legislation

Connecticut passed its state amusement ride safety legislation in 1945, the oldest still in operation.³⁸ Oregon followed in 1959 and six more states, including California, enacted legislation in the 1960s. Most of the remaining states added legislation in the 1980s. In the last fifteen years, twenty-three states have added statutes and regulations overseeing amusement ride safety. (See Appendix B for a complete list.)

Little information exists to indicate what prompted the amusement ride regulations in the 1960s and 1970s, although in many cases (including California) a catastrophic event appears to have prompted the legislation. Most amusement ride statutes and regulations, especially prior to the early 1980s, focused on setting standards for and regulating owners and manufacturers. Some studies suggest that the focus of this legislation reflects the fact that most ride accidents during that time were due to mechanical and/or operator deficiencies.³⁹

More recent findings, including those by the CPSC,⁴⁰ indicate that amusement ride injuries since 1986 are more likely to be caused by rider error than any other reason (75-80 percent).

Accordingly, at least 10 states have enacted, and at least 15 more are considering, “rider responsibility” legislation.⁴¹ (For example, see Appendix A, page 34). Other recent amendments primarily regulate bungee jumping.

Oversight Programs

Most states regulate both permanent and mobile rides at the state level and require state inspections. In twenty states, the administrative agency is the Department or Division of Labor, followed by the Department of Agriculture and the Department of Public Safety each in five states, and the Department of Consumer Affairs (Protection) in four states. Other oversight agencies include the Department of Industrial Relations, state building code agencies, etc.

A few states, such as Arizona and Delaware, allow inspections by insurance companies in lieu of state inspections as part of the state oversight process. Florida inspects all amusement devices and attractions, but exempts the “Big 3,” Disneyworld, Busch Gardens, and Universal Studios. They do so because these parks have their own in-house safety programs whose safety standards, according to the State Inspector, exceed state standards. Texas only requires proof of insurance that must be on file with the Department of Insurance. Three states, Nevada, Idaho, and Wyoming require local jurisdictions to regulate amusement rides.

Of the four states that regulate only mobile rides, each does so differently. California conducts state inspections, Mississippi gives local jurisdictions oversight authority for all amusement rides except the state fair, and Rhode Island allows insurance company inspections, but steps in for an accident situation. The District of Columbia conducts its own inspections.

Many states allow local jurisdictions to further regulate amusement ride safety if such regulation does not conflict with state law. Several localities do this.

Of the ten states that do not regulate permanent parks, five have few, if any permanent parks, and certainly no major theme parks.⁴² Of the remaining five states, California has many permanent parks, including several major theme parks and Missouri is home to Six Flags Over Mid-America. Several states (including California) have considered passing permanent park legislation in the past 20 years but decided not to.

Some states have extensive oversight programs while others have minimal programs. States with extensive programs, such as Florida, Pennsylvania, and Maine regulate and routinely inspect all amusement parks and carnivals. In addition, they:

- Use ASTM and other standards for design, structure, and maintenance inspection guidelines,
- Require permits for operation, have ride operator guidelines, and
- Require proof of owner liability insurance.

States with minimal programs typically have limited jurisdiction. Those with minimal programs include:

<u>State</u>	<u>Jurisdiction</u>
Idaho	Electrical
Utah	Inflatable Rides
Tennessee	Tramways & Aerial Rides
Arizona	State Fair
Mississippi	State Fair

Inspections, Permits, and Licenses

Most states require an annual license or permit (usually for each ride) before operation. Receiving a license or permit is usually contingent upon passing a safety inspection and in some cases providing proof of liability insurance. For mobile amusements, permits must often be posted on the rides for which they were issued. Some states have application and inspection scheduling deadlines. All permanent parks and carnivals are, of course, subject to local building, electrical, and fire codes. Local officials usually conduct these inspections separately.

Inspection Schedules

Most states have separate inspection schedules for permanent parks and mobile carnivals. Mobile carnivals are most often inspected at each set-up or ride relocation. However some states, such as California, inspect once a year and then issue a yearly or seasonal permit. In these cases, mobile carnivals often must submit their travel schedules to inspectors in advance and display their ride permits and inspection certificates on the rides at each location.

Permanent parks are more typically inspected at regular intervals such as annually or before opening for the season. Hawaii inspects amusement rides every six months, while Pennsylvania does so monthly. Some states also have random inspections, and most have follow-up re-inspections for compliance or following an accident. Most rides must be re-inspected following a major modification. In states with private inspectors, state inspectors often step in if there is a problem or accident, or if they receive a complaint. Most states require a passing inspection before they will issue an operating license and/or permit.

Many parks also require employees to conduct daily ride inspections before opening. This usually includes visual inspections and running the rides.

Inspection Criteria

As previously noted, the ASTM has guidelines and standards for amusement ride design, construction, operation, and maintenance. Many states use these criteria for their inspection guidelines. These guidelines cover assembly and disassembly, and daily, as well as periodic, inspection criteria. Most states conduct extensive visual checks, and test safety devices, brakes,

communication equipment, and guard barriers. They also perform system-specific checks of engines, air compressors, hydraulics, and electrical equipment, as well as nondestructive testing of all critical mechanical and structural components as recommended by the manufacturer.⁴³

Inspectors

Most states require inspectors to be licensed professional engineers, with experience in amusement device inspection. Some states hire staff inspectors, others contract out. Some states use insurance company inspectors, but require the company to be licensed to do business within the state. Often inspectors must be certified by the state's regulating board or department. State inspectors often inspect elevators, tramways and ski-lifts as well.

Fees

Most states charge owners/operators for ride inspections. Either a direct per-ride inspection fee is charged or a fee is required to obtain a license or permit (which usually requires an inspection). Fees are typically lower for kiddie rides (\$10-\$30) than for other rides (\$50+), but some states charge one fee for all rides. Government park owners are usually exempt from fees, and there are usually no fees for random inspections.

Insurance

At least 35 states have provisions in their statutes or regulations that require owners to maintain liability insurance. Coverage ranges from \$100,000 per ride to \$3 million per occurrence, with most states having \$1 million liability coverage per occurrence. Of the ten states without this requirement at the state level, three (Idaho, Nevada, and Wyoming) have local oversight and may have locally imposed insurance requirements. The remaining seven do not address insurance in their amusement ride statutes or regulations, but may have requirements found elsewhere.⁴⁴

Ride Operator Guidelines

Many states have ride operator guidelines in their regulations. Typical guidelines suggest that ride operators:

- must be at least 16 years of age,
- must be trained in the proper use and operation of the device,
- must operate only one ride at a time,
- must not operate a ride while under the influence of alcohol or drugs, and
- must not allow another person to handle the controls during normal operation.

In addition, operators frequently are authorized to refuse admission to a ride if entry may jeopardize the safety or health of the person or other patrons. They may also deny admission for specific ride restrictions (for example height) usually according to manufacturers' guidelines.

Some states also have amusement ride operators' and attendants' manuals that provide guidelines for general safety (do's and don'ts), proper conduct for operators, handling emergencies, etc. Many parks have their own such manuals.

CONCLUSIONS

Considering the preceding discussion, we draw the following conclusions:

- Forty-one states regulate both mobile and permanent amusement rides. However, there is a wide variation in how and to what extent each state regulates its rides.
- California is one of only four states that regulates only mobile amusement rides. Of these four states, California's regulations appear to be the most restrictive.
- California leads the nation in amusement ride deaths, 12 from 1973 through 1996. Of these 12 deaths, at least 10 occurred at permanent parks, which the state does not regulate.
- While a cursory examination of the data might suggest there is a connection between regulation and safety, the data are not rigorous enough to test this. While CPSC's data are the best available, there are at least four problems with using their data for this type of risk assessment:
 1. The CPSC's fatality data are incomplete -- their report notes that the data "do not account for all amusement ride-related deaths."⁴⁵
 2. The CPSC does not estimate injuries by state. Consequently we cannot distinguish between regulated and unregulated rides.
 3. There is no way to accurately adjust the data for the number of riders. Thus we cannot assess the number of injuries or deaths relative to the opportunity for injury or death.
 4. We cannot determine the cause of all of the accidents. Since we cannot assign responsibility for the accidents, we cannot accurately characterize the risks.
- Nevertheless, the risk of dying on an amusement ride in California *appears* to be small. Our conservative estimate is about 1 in 30 million per visit.* (By comparison, the annual odds of

* For a number of reasons, this estimate differs from the IAAPA's estimate of a 1 in 250 million chance of a fatal accident. First, the IAAPA estimates appear to be per ride. They assumed each visitor will ride two rides. We have no data to base an assumption of how many rides a person might take. Hence our estimates are per visit. Second, the IAAPA used the CPSC's national fatality data and the IAAPA's own attendance estimates. However, the CPSC warns that their data do not account for all amusement ride related deaths. Consequently, we used the CPSC's California fatality data and doubled the number of deaths to account for any undercounting. Third, the IAAPA used their estimates of national attendance. We based our estimated 33 million state attendance based on 1996 attendance estimates for Disneyland, Universal Studios, Knott's Berry Farm, Six Flags Magic Mountain, Santa Cruz Beach Boardwalk, and Paramount's Great America. This estimate is clearly

dying in an automobile accident are about 1 in 5,000.) However, we cannot be certain. Moreover, we can say even less about the risks of serious injury.

- Not enough data is available to tell if waterparks are more or less risky than other types of amusement parks. However, the recent waterslide collapse in Concord was one of four collapses in the country since 1980 and the first in nearly sixteen years.
- The history of amusement ride safety laws tells us at least two things:
 1. The Legislature typically reacts to high profile accidents by investigating current laws and regulations and introducing proposed changes.
 2. California has considered regulating permanent amusement rides on a number of occasions and has chosen not to.

low, as it ignores attendance at all other permanent and mobile amusement parks, carnivals, and fairs. (Attendance – 33 million. Deaths – average 1.1 per year. Based on CRB documentation of 13 deaths from 1973 through August 1997, plus 100 percent for possibility of missed deaths.)

ENDNOTES

- ¹ The 71 permanent amusement parks data were for 1994; US Bureau of the Census, *County Business Patterns: California*, 1994. The 74 carnival owners/operators data were for 1996; State of California, Division of Occupational Safety and Health, "Amusement Ride Inspection Tabulation for 1996," in *Amusement Ride Safety in California: Briefing Paper of Public Hearing Conducted by Assembly Members Tom Torlakson and Valerie Brown*, June 20, 1997.
- ² (1) Disneyland, (6) Universal Studio CA, (10) Sea World of CA, (12) Knott's Berry Farm, (14) Six Flags Magic Mountain, (15) Santa Cruz Beach Boardwalk. "North American Theme/Amusement Park Attendance Figures -- 1996", Compiled by Ultimate Guide Productions, <http://home.earthlink.net/~croooow/PARKAT96.txt>.
- ³ Data for the week of March 12, 1994. US Bureau of the Census, *County Business Patterns: California*, 1994.
- ⁴ Consumer Product Safety Commission, *Directory of State Enforcement and Safety Officials for Amusement Rides*, May 1997.
- ⁵ Although the CPSC no longer has jurisdiction over fixed-site amusement parks, they continue to collect data on all types of amusement ride accidents whether at mobile or fixed sites.
- ⁶ Utah inspects inflatable rides only at both mobile and fixed parks.
- ⁷ In 1996, 103 waterparks had attendance exceeding 100,000 each, averaging 339,000. The top three waterparks in terms of attendance are all located in Orlando, Florida and operate year-round.
- ⁸ Some of the waterslide deaths occurred on water rides at amusement parks. C. Craig Morris, *Waterslide Injuries and Deaths*, Consumer Product Safety Commission, June 12, 1997.
- ⁹ Associated Press, June 27, 1980.
- ¹⁰ *New York Times*, Aug. 7, 1980 and *Los Angeles Times*, Aug. 12, 1981.
- ¹¹ *Orange County Register*, Aug. 11, 1981 and *Los Angeles Times*, Aug. 12, 1981.
- ¹² *Oakland Tribune*, June 3, 1997.
- ¹³ *Fresno Bee*, July 28, 1968
- ¹⁴ *Sacramento Bee*, June 16, 1997, p. B5
- ¹⁵ Chapter 1113, Statutes of 1968.
- ¹⁶ Public Law 92-574.
- ¹⁷ *Consumer Product Safety Commission v. Chance Mfg. Co., Inc.*, D.C.D.C. 1977, 441 F.Supp. 228.
- ¹⁸ Chapter 705, Statutes of 1983.
- ¹⁹ Public Law 97-35.
- ²⁰ Chapter 520, Statues of 1992.
- ²¹ Chapter 731, Statutes of 1996.
- ²² California Labor Code §7900 et. seq.
- ²³ California Code of Regulations §3900 et. seq.
- ²⁴ California Code of Regulations §3901(b).

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- ²⁵ California Labor Code §7340 et. seq.
- ²⁶ California Code of Regulations §3150 et. seq.
- ²⁷ California Health and Safety Code §116025 et. seq.
- ²⁸ California Code of Regulations §65501 et. seq.
- ²⁹ California Health and Safety Code §18901 et. seq.
- ³⁰ California Building Code §408.2.
- ³¹ California Building Code §106 et. seq.
- ³² California Building Code §108 et. seq.
- ³³ This description was drawn from the ASTM's Frequently Asked Questions, <http://www.astm.org/faq.html>.
- ³⁴ American Society for Testing and Materials, *ASTM Standards on Amusement Rides and Devices*, Fifth Edition, (ASTM: Philadelphia) 1995. The ASTM has revised two of the standards since publication: F747-95 -- Definitions of Terms Relating to Amusement Rides and Devices, and F1193-95 -- Practice for an Amusement Ride and Device Manufacture Quality Assurance Program.
- ³⁵ American Society for Testing and Materials, "Standard Practice for the Design and Manufacture of Amusement Rides and Devices," F-1159 – 94, (ASTM: Philadelphia) 1994.
- ³⁶ "Amusement ride" usually means any mechanical device or devices which carry or convey passengers along, around, or over a fixed or restricted route or course for the purpose of giving its passengers amusement, pleasure, thrills, or excitement. Some states explicitly include waterslides.
- ³⁷ It typically does not include single-passenger coin-operated rides which are manually, mechanically or electronically operated, except where admission is charged for their use, or non-mechanized playground equipment.
- ³⁸ Wyoming has had a carnival ride license requirement since 1929, but its current amusement ride legislation was passed in 1987.
- ³⁹ In 1975, the American Recreational Equipment Association reported that 5 percent of ride accidents were due to manufacturing deficiencies, 25 percent to mechanical deficiencies, and 70 percent to operator deficiencies.
- ⁴⁰ International Amusement and Leisure Defense Association, *Uniform Rider Safety Act*, June 1995.
- ⁴¹ As of June 1996, the ten states with laws are Idaho, New Hampshire, Indiana, Wisconsin, Wyoming, New York, Ohio, New Jersey, Nevada, and Pennsylvania. States pursuing legislation as of June 1996 include California, Connecticut, Florida, Georgia, Illinois, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Oregon, South Carolina, South Dakota, Texas, Virginia, and Washington.
- ⁴² Rhode Island, District of Columbia, Montana, North Dakota, and South Dakota.
- ⁴³ Nondestructive testing (NDT) is the development and application of technical methods such as radiographic, magnetic particle, ultrasonic, liquid penetrant, electromagnetic, neutron radiographic, acoustic emission, visual, and leak testing to examine materials or components in ways that do not impair the future usefulness and serviceability in order to detect, locate, measure and evaluate discontinuities, defects, and other imperfections; to assess integrity, properties and composition; and to measure geometrical characters.
- ⁴⁴ These states include Arizona, Colorado, District of Columbia, Louisiana, Mississippi, Tennessee, and Utah.

⁴⁵ C. Craig Morris, *Deaths and Injuries Associated With Amusement Rides*, Consumer Product Safety Commission, May 9, 1997, p. 3.

APPENDIX A -- EVOLUTION OF CALIFORNIA'S AMUSEMENT RIDES SAFETY LAWS

For the last 30 years, the history of amusement park safety laws is a history of legislative reaction to high profile accidents. Until the late 1960s, neither California nor the federal government treated amusement parks, carnivals and rides any different from any other business or piece of equipment. Like most businesses, permanent amusement parks were subject to local building codes. However, they were not subject to any special state or federal oversight. Similarly, portable carnivals received no special treatment. This began to change because of an accident at the Kern County Fair.

1967

On September 26, 1967, a teenage girl died when she was thrown from a carnival ride at the Kern County Fair.¹ Two girls were riding in a car on "The Scrambler" -- a ride which at times creates a large amount of centrifugal force -- when the door suddenly opened. One girl was thrown from the ride, while the other managed to wedge herself into her seat until the ride was stopped. The coroner ruled the death accidental.² While an examination of the ride showed the door latch to one car was defective, there was no evidence presented that the deceased had ridden in that car. However, the Coroner did find negligence on the part of the ride operator.

1968

Responding to the death of the girl in Kern County, Assemblymember George Zenovich (D-Fresno) introduced Assembly Bill 888 on March 6, 1968.³ The bill, titled the Amusement Rides Safety Law, proposed to establish the Amusement Rides Safety Board. This board would establish rules and regulations for operation of both permanent and mobile amusement rides. The Department of Industrial Relations' Division of Industrial Safety (now known as Cal-OSHA) would enforce the rules and regulations.

The bill would establish a number of requirements. Before a ride operator could erect or alter an amusement ride, the operator would have to file with the Division a notice of intention and any plans or diagrams requested by the Division. All amusement rides would be inspected before they were originally put into operation, and at least once every year thereafter.⁴ In addition, amusement rides could be inspected each time they are disassembled and reassembled. Ride operators would have to carry at least \$50,000 in liability insurance. Receipts from inspections and the sale of permits would support the program.

Amendments

On April 23, Assemblymember Zenovich amended the bill. First, he eliminated the Amusement Rides Safety Board. Instead, Cal-OSHA would establish the rules and regulations. Second, he exempted "the operation of articles of husbandry incidental to agricultural operation" -- such as pony rides -- from the act.

The bill was further amended on April 30 and again on May 13. These amendments were largely technical refinements. For example, the amendments clarified that:

- The rules and regulations promulgated and formulated by the Division would be subject to adoption by the Industrial Safety Board.
- The rules and regulations were to be in addition to existing applicable safety orders and will be concerned with engineering force stresses, safety devices, and preventive maintenance.
- Cities and counties could further regulate carnivals or amusement rides, and could enact more restrictive legislation.
- Certificates of inspection could also be issued by a public entity (not further defined).

Assembly Vote

The bill cleared the Assembly Committees easily, with no formal opposition. On June 10 the full Assembly voted 59 - 0 to send the bill to the Senate.

The Senate

The bill moved quickly through the Senate Committees, again with no formal opposition. Senator George Danielson (D-Los Angeles County) carried the bill for Assemblymember Zenovich on the Senate floor. On July 25, Senator Danielson amended the bill on the Senate floor. His amendments exempted “amusement devices of permanent nature which are subject to building regulations issued by cities or counties and existing applicable safety orders.” Senator Danielson reportedly said permanent amusement parks, such as Disneyland, requested the amendments because they were already covered by building code provisions.⁵ More recently, now-lobbyist Zenovich told the Sacramento Bee that the Walt Disney Co. lobbied against the bill arguing that “they had their own safety system and the state shouldn’t oversee their operation.”⁶

The next day the bill passed the Senate 38 - 0. Four days later, the Assembly concurred with the Senate amendments 61 - 0. Governor Ronald Reagan signed the bill into law on August 8, 1968, as Chapter 1113, Statutes of 1968.

Summary of Chaptered Bill

The bill established the Amusement Rides Safety Law. The law was to be administered by the Division of Industrial Safety (now known as Cal-OSHA) or a public entity (not further defined).^{*} The law defined amusement rides as any mechanical device which travels over a fixed route for the purpose of giving its passengers amusement, pleasure, thrills, or excitement.

* Regulations later defined “public entity” as a city or county.

The following were exempt from the law:

- Articles of husbandry incidental to any agricultural operations, such as pony rides.
- Amusement devices of a permanent nature which are subject to building regulations issued by cities or counties and existing applicable safety orders.

The Division of Industrial Safety was to promulgate and formulate rules and regulations for adoption by the Industrial Safety Board. The rules and regulations must cover installation, repair, maintenance, use, operation, and inspection of all amusement rides as necessary. The rules and regulations were to be in addition to existing safety orders and were to be concerned with engineering force stresses, safety devices, and preventive maintenance.

Rides must be inspected before being put into operation for the first time and at least once a year thereafter. Rides may also be inspected each time they are disassembled and reassembled. The inspectors must be licensed professional engineers. The division may hire inspectors. The division may order a temporary cessation after an inspection shows the ride to be hazardous or unsafe.

The owner or operator must have \$50,000 liability insurance policy or bond, or \$50,000 in cash or other security.

1972

On October 2, 1972, President Nixon signed the Consumer Product Safety Act into law.⁷ The purposes of this act were:

1. to protect the public against unreasonable risks of injury associated with consumer products;
2. to assist consumers in evaluating the comparative safety of consumer products;
3. to develop uniform safety standards for consumer products and to minimize conflicting State and local regulations; and
4. to promote research and investigation into the causes and prevention of product-related deaths, illnesses, and injuries.⁸

To accomplish these purposes, the Act established the Consumer Product Safety Commission (CPSC). The CPSC held, and the courts affirmed, that amusement park rides were consumer products.⁹ Therefore, under other provisions of the Act, the CPSC could and did regularly inspect both permanent and mobile amusement park rides.

1978

1978 was a bad year for serious accidents at California amusement parks:

- February 1978 -- a young man was killed and his wife of a few hours seriously injured when a sky-ride gondola at Magic Mountain jumped its tracks and fell 50 feet to the ground. State engineers^{*} traced the accident to a loose clamp that held the gondola on its cable.¹⁰
- July 1978 -- 10 persons were injured when a train of passenger cars suddenly hurtled them backwards on the "Revolution" roller coaster at Magic Mountain. Inspectors found that the braking system had malfunctioned.¹¹
- September 1978 -- a 24 year-old woman was killed on the "Cyclone" roller coaster in Long Beach Amusement Park. A state safety engineer^{**} said that the woman struck her head against a steel support because she did not stay seated until the ride came to a stop. The roller coaster did not have a safety bar or safety belts.¹²
- December 1978 -- a 20 year-old woman fell to her death from the "Colossus" roller coaster at Magic Mountain. Inspectors failed to find any evidence of a malfunction of the train or the lap bar. Instead, they speculated that the woman's size -- 4' 5" tall, 253 pounds, 53" waist -- may have made the lap bar ineffective in her case.¹³

1979

On March 27, 1979, Senators Bill Greene and Alan Sieroty introduced SB 914. This bill, as heard in committee, proposed to:

- Eliminate the exemptions for permanent amusement rides,
- Allow Cal-OSHA to exempt from the annual inspection any permanent ride if:
 1. Cal-OSHA determines the operator maintains satisfactory safety, maintenance, and training programs, or
 2. If the ride is subjected to regulations issued by a public entity that are at least as restrictive as state safety requirements,
- Require all amusement rides to be registered with Cal-OSHA,
- Increase the required amount of liability insurance to \$500,000,
- Require the operator of an amusement ride to report to Cal-OSHA or a public entity all injuries which require medical attention beyond first-aid and fatalities resulting from the operation of an amusement ride, and

* Cal-OSHA has jurisdiction over all aerial tramways.

** For some unspecified reason, Cal-OSHA considered the "Cyclone" to be "portable."

- Require Cal-OSHA or the public entity to investigate all reports of injury or fatality within 24 hours.

The operators of Santa Cruz Beach Boardwalk formally supported the bill. Disneyland formally opposed the bill.

On May 2, the Senate Committee on Industrial Relations heard SB 914. The list of witnesses included representatives from Disneyland, Knott's Berry Farm, Santa Cruz Beach Boardwalk, and Marriott's Great America. The committee took no formal action and the bill died in that committee.

1980

On March 29, 1980, a 13-year-old boy fell to his death and eight others were injured when two trains collided on the "Willard's Whizzer" roller coaster at Great America. Park officials traced the accident to a mysterious electric signal that confused the roller coaster's computer.¹⁴

1981

Assemblymember Floyd's AB 1035

Responding to the "Willard's Whizzer" and other accidents, Cal-OSHA asked Assemblymember Richard Floyd (D-Los Angeles Co.) to carry a bill that would expand Cal-OSHA's authorities to include permanent amusement rides. On March 16, 1981, Assemblymember Floyd introduced AB 1035.

The bill proposed to make the following changes to the Amusement Rides Safety Law:

- Bring permanent rides under Cal-OSHA jurisdiction.
- Exempt permanent rides from annual inspection if Cal-OSHA, an insurance company, or public entity determines that the ride is maintained satisfactorily and that the operators are adequately trained.
- Exclude slides, playground equipment, coin-operated devices or conveyances which operate directly on the ground or on the surface or pavement directly on the ground.
- Clarify that rules must be concerned with the design, static and dynamic loading, material of construction and control devices.
- Require Cal-OSHA to annually prepare and submit to the Division of Fairs and Expositions within the Department of Food and Agriculture, a report summarizing all inspections of amusement rides and accidents occurring on amusement rides.
- Require inspectors to be employed by the division, or an insurance company or a public entity.
- Require public entities other than Cal-OSHA which undertake the issuance of permits to have safety standards equal to those promulgated by Cal-OSHA.
- Increase the liability insurance requirement to \$500,000.

- Require each operator of an amusement ride to report to Cal-OSHA immediately by telephone each known incident where maintenance, operation, or use of the amusement ride results in a fatality or an injury that requires medical service beyond ordinary first aid.
- If a failure or malfunction of an amusement ride caused the fatality or injury, the operator must preserve for Cal-OSHA's investigation the equipment or conditions that caused the accident.
- Make it a misdemeanor to fail to comply with any provision of the Amusement Rides Safety Law.

The bill had no formal opposition. On April 28, the bill passed the Assembly Committee on Labor and Employment by a 7 - 1 vote. The Assembly Ways and Means Committee then heard it on July 2. No vote was taken that day. Instead, the bill was to be heard again at a later date. The second hearing was never held and the bill died in committee.

Federal Omnibus Budget Reconciliation Act

On August 13, 1981, the federal Omnibus Budget Reconciliation Act¹⁵ was enacted. Included in this act were changes to the Consumer Product Safety Act. In particular, the Omnibus Budget Reconciliation Act exempted permanent amusement rides from CPSC's jurisdiction. The CPSC continued to have authority over mobile amusement rides.

The purported intent of this change was to encourage States to assume greater responsibility for amusement ride safety.¹⁶ However, at a June 21, 1997 hearing in Concord California, retired CPSC investigator Albert Limberg presented a different story. According to Limberg, the amusement park industry lobbied for the change. He said the change was a result of the "Willard's Whizzer" accident. Marriott, the then operators of Great America, had a history of similar problems with the ride. However, they had failed to notify the CPSC of the problems as required by law. While investigating the fatal accident, the CPSC discovered the non-disclosure and fined the park \$70,000. Limberg observed that within several months of the fine, Congress changed the law to exempt permanent parks, like Great America, from CPSC oversight.¹⁷

1983

Assembly Subcommittee on Amusement Ride Safety

Assemblymember Richard Floyd chaired the Assembly Committee on Labor and Employment's Subcommittee on Amusement Ride Safety. Other members of the Subcommittee were Assemblymembers Sally Tanner and Marian Bergeson. The purpose of the Subcommittee was to determine whether the Legislature should extend the provisions of California's Amusement Rides Safety Law to permanent amusement rides.

The Subcommittee held one hearing in Sacramento. Additionally, members of the Subcommittee and staff inspected three permanent amusement parks: Santa Cruz Beach Boardwalk, Magic

Mountain, and Great America.* The inspections reportedly included a review of the facilities and extensive discussions with safety directors and maintenance and medical personnel:

The subcommittee has found that all of the permanent amusement parks in this state operate very high quality safety programs. Moreover, a once-a-year inspection by [Cal-OSHA], currently required of portable rides, would not add a significant increment of safety to the operation of these parks. Therefore, the subcommittee concludes that the inclusion of permanent amusement rides within the Amusement Rides Safety Law is not necessary at this time.¹⁸

Senator Johnson's SB 1177

On March 4, 1983, Senator Ray Johnson introduced SB 1177. This bill essentially contained all of the non-permanent ride provisions of Assemblymember Floyd's AB 1035.

The bill proposed to make the following changes to the Amusement Rides Safety Law:

- Exclude slides, playground equipment, coin-operated devices or conveyances that operate directly on the ground or on the surface or pavement directly on the ground.
- Require Cal-OSHA to define the specific devices that are amusement rides and apply those definitions equally to all operators of similar or identical rides.
- Require Cal-OSHA to annually prepare and submit to the Division of Fairs and Expositions within the Department of Food and Agriculture, a report summarizing all inspections of amusement rides and accidents occurring on amusement rides.
- Require inspectors to be employed by Cal-OSHA, or an insurance company or a public entity.
- Require each application for a mobile ride annual permit to include a route list for the ride. The applicant could revise the route list at any time, but they could not operate the ride without first notifying Cal-OSHA or the permitting agency.
- Require each operator of a mobile amusement ride to report to Cal-OSHA immediately by telephone each known incident where maintenance, operation, or use of the amusement ride results in a fatality or an injury that requires medical service beyond ordinary first aid.
- If a failure or malfunction of an amusement ride caused the fatality or injury, the operator must preserve for Cal-OSHA's investigation the equipment or conditions that caused the accident.
- Make it a misdemeanor to fail to comply with any provision of the Amusement Rides Safety Law.

* In 1983, there were 71 amusement parks in California. Four parks employed 1,000 or more in March, none employed 500 to 999, five employed 100 to 499, six employed 50 to 99, and 56 employed less than 50. US Bureau of the Census, *County Business Patterns: California*, 1983.

Staff had requested permission to inspect Disneyland and Knott's Berry Farm. Both companies denied the request. Jo-Ellen McChesney, personal conversation, July 24, 1997.

Senator Johnson carried the bill on behalf of the Joint Committee on Fairs Allocation and Classification. It was formally supported by:

- Western Fair Association,
- Fair Directors' Legislative Advisory Committee,
- National Parents and Teachers Association, and
- California Congress of Parents, Teachers, and Students Inc.

On May 5 the bill passed the Assembly Industrial Relations Committee, 7 - 0. On May 26, SB 1177 passed the Senate on consent, 40 - 0. On June 29 it passed the Assembly Labor and Employment Committee 12 - 0. Finally, on August 25 SB 1177 passed the Assembly on consent, 80 - 0.

1984

On May 22, 1984, three teenage boys were seriously injured on "The Edge", a thrill ride at the Great America Park in Gurnee, Ill.¹⁹ In response, Representative Paul Simon (D-Illinois) introduced HR 5790 on June 6, 1984. This bill, as reported out of sub-committee on September 25, proposed to expand the powers of the CPSC to inspect permanent amusement park rides:

1. In states that did not conduct inspections, or
2. Which have been involved in a fatality or an accident that required hospitalization.²⁰

The House of Representatives debated the bill on October 2. Those in favor of the bill argued that it ensured that rides would be inspected in all states, even those that did not require inspection themselves. Those against argued that for those states that already regulated rides, the bill only exempted the inspection requirement. All other requirements, such as reporting or inspection after an accident would still be in place. After the debate, the bill passed the House, 300 - 119. The next day, the bill was referred to the Senate Committee on Commerce, Science, and Transportation. The bill died in committee.

1985

In 1985, the US Congress again debated regulating permanent amusement parks. Three bills were introduced that were similar to Representative Simon's prior year's HR 5790:

- HR 667, Representative Guarini (D-New Jersey) introduced January 24, 1985,
- HR 5790, Representative Waxman (D-California) introduced March 19, 1985, and
- S 7020, now Senator Simon (D-Illinois), introduced March 20, 1985.

The CPSC, the International Association of Amusement Park Owners (IAAPO), Disneyland, and Knott's Berry Farm opposed one or more of these bills. Instead, the IAAPO supported S 1032, introduced by Senator Danforth (R-Missouri). This bill proposed to establish an 18 month study of the status of amusement ride regulation at the local, state and federal level. The purpose of the

study would be to determine the need for additional federal regulation. Despite extensive debate and legislative maneuvering, none of these bills made it into law.²¹

1987

In the mid-1980s, a kiddie-train came off its tracks at Micke Grove Park in San Joaquin County. No one was seriously injured. However, the accident prompted San Joaquin County to look for routine inspection by the state.²² On March 4, 1987, Senator John Garamendi (D-San Joaquin Co.) introduced SB 1040. Sponsored by the County of San Joaquin, this bill proposed to completely rewrite the Amusement Rides Safety Law.

As amended on April 20, the bill would:

- Bring permanent rides under Cal-OSHA jurisdiction.
- Change the inspection requirements to:
 - Once during the off-season and once during the peak season.
 - Before a new or modified ride commences public operation.
 - Each time an amusement ride is disassembled or reassembled.
 - Upon notification of an accident or complaint involving an amusement ride.
- Increase the amount of required liability insurance to \$1 million.
- Add new civil and criminal sanctions for violating any part of the law or rules or regulations.
- Create the Safe Amusement For Everyone Fund. Cal-OSHA would deposit inspection fees into the fund, along with any civil penalties collected.
- Allow Cal-OSHA's senior inspector to delegate inspections to an amusement park's safety and inspection division or to a Cal-OSHA approved contractor employed by an amusement park.
- Allow any owner or operator of an amusement ride to deny entrance to any person who may jeopardize the safety of certain persons.
- Require amusement rides to stop functioning under weather conditions that did not permit safe operation.
- Make information obtained by inspectors that might contain or reveal a trade secret confidential, except as specified by the owner.

The County of San Joaquin and Micke Grove Amusements formally supported the bill. There was no formal opposition.

On May 20, the bill passed the Senate Industrial Relations Committee, 5 - 0. The next day, Senator Garamendi amended the bill to make the division chief responsible for setting standards and granting exemptions. On June 9, SB 1040 was amended to, among other things:

- Eliminate the liability insurance requirement;
- Make the standards board responsible for setting rules and regulations; and

- Change the inspection frequency to “upon receipt of a formal request from a local building inspection authority or local governing body.”

On June 19, the bill passed the Senate Appropriations Committee, 5 - 0. The bill was amended again on June 22, to reinstate the prior law’s inspection requirements for portable amusement rides. Two days later, the Senate refused passage of the bill, 18 - 10. However, the Senate granted the bill reconsideration. The next day, June 25, the bill was amended to exempt:

1. Amusement rides that are systematically inspected by a county building and safety department, or
2. Amusement parks with:
 - annual paid attendance exceeding one million visitors,
 - existing rehabilitation and preventive ride maintenance programs which include daily ride inspections for the protection of the general public, and
 - an existing full-time, year-round ride maintenance staff.

On June 26, the bill passed the Senate 34 - 0. On June 29 SB 1040 was assigned to the Assembly Committee on Labor and Employment. The bill died in that committee without a hearing.

1991

On October 27, 1991, a 29-year-old man fell to his death near Perris California in the nation’s first fatal bungee jumping accident. An industry safety consultant found that the deceased had not properly attached himself to the bungee cords.²³ Having determined that the laws regulating portable amusement rides also applied to bungee jumping, Cal-OSHA issued regulations regarding bungee jumping, on November 25, 1991.²⁴

1992

On February 2, 1992, Assemblymember Paul Horcher (R-Whittier) introduced AB 2778. This bill proposed to require bungee jumping operators have at least \$100,000 in liability insurance. The bill had no formal support or opposition.

On May 7 the bill passed the Assembly Insurance Committee, 11 - 4. Four days latter the bill was amended to increase the liability requirement to \$1 million. On May 21, AB 2778 passed the Assembly, 48 - 22. On June 30, the bill passed the Senate Business and Professions Committee, 6 - 0. The next day, the bill was amended to delete previous language and instead specifically include bungee jumping services in the definition of an amusement ride. The bill passed the Senate, 30 - 0, on July 23. The following day the Assembly concurred with the Senate amendments, 49 - 17. Governor Wilson signed the bill August 17.

1996

By 1996, 10 states had adopted so-called rider responsibility laws. Such laws set down rules of conduct of patrons of the state's amusement parks and theme parks. On February 21, 1996, Assemblymember Curt Pringle (R-Garden Grove) introduced AB 2482. This bill, sponsored by Knott's Berry Farm, proposed to create the California Rider Safety Act.

Among other things, the bill would require riders to:

1. Understand and obey the posted safety rules,
2. Behave safely,
3. Not be under the influence of drugs or alcohol, and
4. Not go on any amusement ride unless the rider, or their parents, knows the range and limits of their ability, and knows that the requirements of the amusement ride will not exceed those limits.

By July 9, a long list of amusement parks and entertainment industry interests formally supported the bill. The Consumer Attorneys of California opposed it.

The bill saw much legislative action. The bill was amended three times before passing the Assembly, 56 - 10. Once in the Senate, the bill saw additional technical changes on July 8. Then, on July 11, the bill was amended to delete all provisions except those allowing amusement parks to detain and eject persons suspected of violating lawful park rules. Thus amended, the bill passed the Senate Judiciary and Appropriations committees as well as the full Senate without dissent. The Assembly concurred to the Senate amendments and Governor Wilson signed the bill into law.²⁵

1997

On February 28, 1997 Assemblymember Pringle introduced AB 1289. This bill would essentially enact all the Rider Safety Notification provisions of his prior year's AB 2482. Knott's Berry Farm is the sponsor of the bill. The bill is formally opposed by Consumer Attorneys of California and the California Labor Federation, AFL-CIO. AB 1289 is currently in the Assembly Labor and Employment Committee.

Endnotes

- ¹ *The Bakersfield Californian*, September 27, 1967.
- ² *The Bakersfield Californian*, October 2, 1967.
- ³ *Sacramento Bee*, March 6, 1968.
- ⁴ The bill implied, but did not specify, that Cal-OSHA would do the inspection.
- ⁵ *Fresno Bee*, July 28, 1968.
- ⁶ *Sacramento Bee*, June 16, 1997, p. B5.
- ⁷ Public Law 92-574.
- ⁸ 15 UCS §5052.
- ⁹ *Consumer Product Safety Commission v. Chance Mfg. Co., Inc.*, D.C.D.C. 1977, 441 F.Supp. 228.
- ¹⁰ *Los Angeles Times*, December 27, 1978.
- ¹¹ *Los Angeles Times*, December 27, 1978.
- ¹² *Long Beach Press Telegram*, September 4, 1978, September 5, 1978, and September 11, 1978.
- ¹³ *Los Angeles Herald Examiner*, December 30, 1978.
- ¹⁴ *San Francisco Chronicle*, March 30, 1980; *San Francisco Chronicle*, May 20, 1980.
- ¹⁵ Public Law 97-35.
- ¹⁶ United States Congress, House Committee on Energy and Commerce. *Amusement Park Safety Act of 1984*, House Report; 98-1072. Washington, DC: US GPO, 1984.
- ¹⁷ *San Francisco Chronicle*, June 21, 1997.
- ¹⁸ Assembly Subcommittee on Amusement Ride Safety, *Final Report*, October 1983, p. 12.
- ¹⁹ *Sacramento Bee*, August 7, 1984; and *San Jose Mercury News*, August 7, 1984.
- ²⁰ House Committee on Energy and Commerce, *Amusement Park Safety Act of 1984*, Report 98-1072, September 24, 1984.
- ²¹ The Senate debate on July 24, 1985, was typical. See: Congressional Record, Vol. 131, Part 15, pp. 20358 – 20367.
- ²² *San Francisco Chronicle*, June 19, 1997.
- ²³ *Los Angeles Times*, November 1, 1991.
- ²⁴ *Los Angeles Times*, November 28, 1991.
- ²⁵ Chapter 731, Statutes of 1996.

APPENDIX B -- REGULATION IN THE 50 STATES AND DISTRICT OF COLUMBIA

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Alabama	None	None	None	None	None
Alaska	1960	Fixed-Site and Mobile	Department of Labor	\$1 million liability insurance policy required for both tramways and amusement rides. Minimum 10 day notification to Department before operation can begin.	Performed by the Alaska Department of Labor
Arizona	NA	State Fair	Industrial Commission -- Occupational Safety and Health	None	Private agency inspection of rides at annual State Fairs. Rides inspected on Indian Reservations funded by Bureau of Indian Affairs.
Arkansas	1981	Fixed-Site and Mobile	Department of Labor	No permit issued. Dept. of Labor requires proof of current minimum insurance and inspection by ADOL before opening to the public.	State inspections done at ride, fair or carnival set-up.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
California	1968	Mobile	Department of Industrial Relations -- Division of Occupational Safety and Health	Amusement Rides -- operating permit expires March 1 of each year. Passenger Tramways -- annual operating permit required.	Inspected by the Occupational Safety and Health Division. Tramways are inspected twice a year. Mobile rides are inspected at least once a year.
Colorado	1981	Fixed-Site and Mobile	Division of Labor	Permits are required by all owners of both fixed-site and mobile rides. Permits are required for amusement parks or carnivals for the particular year.	Inspection performed by State and others (insurance company - private firms).
Connecticut	1945	Fixed-Site and Mobile	Department of Public Safety -- State Fire Marshal	Application for inspection needs to be submitted 15 days prior to opening date to allow for scheduling of inspection.	Annual inspection by professional engineer. Re-inspection of mobile carnival rides at each new site. Amusement parks are inspected once annually before opening.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Delaware	1985	Fixed-Site and Mobile	Office of the State Fire Marshal	Electrical inspections required for each carnival/fair or show "set up."	Third party deemed as insurance carrier. Insurance inspections rather than state; no specific guidelines for inspection.
District of Columbia	1992	Mobile only	Dept. of Consumer & Regulatory Affairs	Licenses required for carnival before the rides begin operating.	Inspect amusement rides operating at carnivals, circuses and neighborhood festivals in the District of Columbia. No inspection guidelines.
Florida	1983	Fixed-Site and Mobile	Department of Agriculture	Mobile rides inspected every time they are set up. Waterparks, permanent parks, and go-cart tracks are inspected prior to start of each season.	Inspects any mobile ride and fixed sites without full-time safety inspectors. Bungee jumping operations inspected. Does not inspect permanent facilities that employ 1,000 or more full-time employees and maintain approved permanent safety inspectors.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Georgia	1985	Fixed-Site and Mobile	Department of Labor	Permits required annually for all amusement devices. Prior to issuance of a permit the manager/operator must file proof of insurance in the amount of at least \$500,000 liability coverage, and a list of rides and serial numbers.	Amusement (stationary) and Carnival (mobile) rides are inspected annually at the time of the first "play date" and spot check several times thereafter.
Hawaii	1980	Fixed-Site and Mobile	Department of Labor and Industrial Relations -- Occupational Safety and Health	Certificate of Inspection is attached to ride after each inspection.	Rides inspected every six months by State. Elevator inspectors do the amusement device inspections.
Idaho	NA	Fixed-Site and Mobile	Division of Building Safety. May be regulated by local ordinance in some cities.	Permits (and inspection) required for each set up or annually, prior to first show, for permanent locations.	Inspection required for each set up or annually, prior to first show, for permanent locations.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Illinois	1984	Fixed-Site and Mobile	Department of Labor	Fixed and Mobile operators must apply for annual permits. Rides and attractions must pass inspection before permit issued.	Annual inspection of amusement rides, amusement attractions, ski-lifts, rope tows, go-carts, bungee cord devices and those waterslides not regulated by the Illinois Dept. of Public Health. Follow-up inspections are unannounced.
Indiana	1987	Fixed-Site and Mobile	State Building Commissioner	Are required	Covers mobile rides, ski-lifts, and fixed sites. Rides are inspected on first "set up" each year. They are then subject to inspection each additional time they are "set up."
Iowa	1972	Fixed-Site and Mobile	Division of Labor	Operator issued an annual license for each ride following inspection. Carnival or event permit issued annually.	Covers fixed-site and mobile rides, but not ski-lifts unless part of the carnival or fair. Inspection scheduled before ride opens and then annually or "spot checks" thereafter.
Kansas	None	None	None	None	None

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Kentucky	1984	Fixed-Site and Mobile	Department of Agriculture	\$50.00 permit fee, good for one year.	One annual inspection required by state. Covers mobile and fixed-site amusement rides, ski-lifts, waterslides, air inflatable rides, and go-cart establishments.
Louisiana	1985	Fixed-Site and Mobile	Department of Public Safety -- State Fire Marshal	None	None
Maine	1961	Fixed-Site and Mobile	Department of Public Safety -- Office of the State Fire Marshal	Requires permits and registration for license.	Annual on-site inspection of fairs, carnivals, circus, etc. upon entering state. Annual inspection of fixed-site rides. Inspection of mobile rides as set up and reassembled. Inspected as complaints received.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Maryland	1976	Fixed-Site and Mobile	Division of Labor and Industry	Certificate of Inspection required for each ride, each time moved and reassembled. Certificate of Insurance required: Not less than \$200,000 for non-mechanical rides, \$350,000 for mechanical.	Annual inspections of fixed-site amusement parks. Mobile rides inspected each time ride is moved and reassembled. Ski-lifts, tramways, waterslides, and go-carts also regulated by this agency.
Massachusetts	1974	Fixed-Site and Mobile	Department of Public Safety Engineering	Annual permitting required for mobile sites.	Initial inspection by licensed insurance representative approved by state Public Safety Office - if an injury accident occurs, a state Dept. Engineer steps in. Annual and intermittent inspection of mobile rides. Annual on-site inspection of fixed parks.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Michigan	1966	Fixed-Site and Mobile	Division of Commerce	Obtained from Commercial Licensing Division. Both mobile and fixed-site ride operators apply for annual permits. Must pass inspection before issuance of permit.	Annual inspection. Periodic inspections based upon past history. Some cities in Michigan require a state inspection before rides can operate. Waterslides also covered - require plans specification, stress analysis and engineering certification.
Minnesota	1992	Fixed-Site and Mobile	Department of Labor and Industry	None	\$1 million minimum insurance per occurrence. Requires a Certificate of insurance or affidavit of inspection. \$2,000 per day civil penalty for violations.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Mississippi	NA	Mobile	Office of Consumer Protection. Individual cities & municipalities have jurisdiction in their respective areas.	A license is required for tax purposes.	State Fair Commission inspects each ride erected for annual fair.
Missouri	None	None	None	None	None
Montana	None	None	None	None	None
Nebraska	1987	Fixed-Site and Mobile	Department of Labor	Annual Permits issued upon completion of application process.	Inspected annually by the State; if not done by qualified inspectors. (Insurance inspectors or qualified private inspectors).
Nevada	1991	Fixed-Site and Mobile	Consumer Affairs	Permits and Licenses by cities.	Inspections by city code inspectors.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
New Hampshire	1989	Fixed-Site and Mobile	Department of Safety	Registration/license required.	Prior to registration/licensing, an independent inspector visits the mobile or fixed-site ride. Subsequent annual and intermittent inspections conducted by the state on mobile and fixed-site rides. Follow-up complaint inspections performed by state.
New Jersey	1975	Fixed-Site and Mobile	Department of Labor	Each ride licensed, both mobile and fixed-site. Certificate of Insurance (\$100,000) required.	Full safety inspections prior to season. Load tests in heavy rides, carnivals must submit itinerary in advance. Mobile rides inspected following set up at each location. Bungee jumping, ski-lifts, tramways, and go-carts are also included.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
New Mexico	1978	Fixed-Site and Mobile	New Mexico Carnival Program	Inspections and insurance certificates are required to be filed with the state. Filing fee is \$50.00 per ride. \$3 million liability insurance required per ride, including bungee jumping and state fair rides.	Annual inspections by a NAARSO inspector and daily inspections by the owner/operator.
New York	1983	Fixed-Site and Mobile	Department of Labor	Permits required for mobile and fixed-site amusement rides. Certificate of Insurance required minimum \$1 million. Permits: Each \$25 kiddie rides and \$50 adult rides.	Annual on-site inspection of stationary amusement park rides. Mobile rides must submit schedules in advance for inspections at all stops.
North Carolina	1986	Fixed-Site and Mobile	Department of Labor	A permit number is issued which is recorded on a sticker and attached to the ride following inspection.	Semi-annual inspection of stationary rides; Unannounced inspection; Every mobile ride inspected at each set-up; Follow up inspections to insure compliance. Ski-lifts, go-carts, and rope tows also regulated by this agency.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
North Dakota	None	None	None	None	None
Ohio	1985	Fixed-Site and Mobile	Department of Agriculture	A permit is issued annually for each mobile amusement ride upon completion of a satisfactory safety inspection. Prior to issuance of a license, the operator must file an Ohio itinerary as well as initiate the filing of a Certificate of Insurance.	Every ride is inspected prior to the issuance of the license. Depending upon the firm's history, rides must be inspected at each subsequent location. Rides found unsafe must be made safe prior to operating again.
Oklahoma	1984	Fixed-Site and Mobile	Department of Labor	Annual registration. Certificate of Operation issued to each mobile and fixed locations - each ride is to be registered with the Oklahoma Labor Department.	Inspection required by state inspectors. Mobile - each time set up; Permanent - annually. Insurance is required. Bungee Jumping & go-carts are also regulated.
Oregon	1959	Fixed-Site and Mobile	Building Codes	Annual permit for operation of all amusement rides.	Annual inspection of fair, carnivals, circus, etc. statewide. Annual inspection of all stationary amusement parks.

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Pennsylvania	1984	Fixed-Site and Mobile	Department of Agriculture	Rides must be registered with the Department of Agriculture. An Itinerary and Certificate of Inspection must be provided.	Rides must be inspected by a Certified Inspector every thirty (30) days or every set up, whichever comes first. Quality Control inspections are conducted by State Inspectors on a frequent and random schedule.
Rhode Island	1985	Mobile	Department of Labor	None issued by the state, however Certificate of Operator issued by local building or electrical inspectors.	Annually. Generally, insurance company conducts their own inspection. In an accident/incident situation state building officials will inspect.
South Carolina	1976	Fixed-Site and Mobile	Department of Labor, Licensing and Regulations	Permit required. Good for 12 months ending Dec. 31st. \$500 thousand liability insurance required.	Yearly and unannounced. Operator inspections also. NDT and manuals required; daily check sheets and maintenance records required.
South Dakota	None	None	None	None	None

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Tennessee	1984	Fixed-Site and Mobile	Department of Labor	Only applicable to Tramways & Ski-lifts as covered in elevator legislation. A state permit is required for new construction and modification.	Six month on-site inspection for tramways and aerial rides.
Texas	1983	Fixed-Site and Mobile	Department of Insurance	Insurance policy required by the Texas Department of Insurance for review of compliance. A \$20.00 filing fee is required for each amusement ride. A \$20.00 fee for each entire go-cart track.	Annual inspection required with inspection certificate submitted to the Texas Department of Insurance for review. Inspectors are required to be professionally qualified by the insurer.
Utah	NA	All Inflatable Rides	Division of Consumer Protection	None	None
Vermont	1996	Fixed-Site and Mobile	Secretary of State	Issue permits to operate if proof of liability insurance is presented.	None

State	Year of Initial Legislation	Type(s) of Parks Inspected	Oversight Agency	Permits and Licenses	Inspections
Virginia	1986	Fixed-Site and Mobile	State Building Code Office	A permit is required from the local building department for the re-assembly or operation of an amusement device.	Inspections are required prior to each operation, after any major modification, or after each assembly. Inspections are performed only by inspectors that have met Virginia's certification requirements.
Washington	1986	Fixed-Site and Mobile	Department of Labor and Industries	Amusement Rides require Permits and Licenses. Annual operating permits.	Annual Safety and Mechanical Inspection. Electrical Inspection each "setup." Maintain liability insurance.
West Virginia	1966	Fixed-Site and Mobile	Division of Labor	Mobile ride license required at time of each "set-up." Fixed-rides require annual licenses.	Each ride is licensed, both mobile and fixed-site. Certificate of \$1 million insurance required.
Wisconsin	NA	Fixed-Site and Mobile	Department of Industry, Labor and Human Relations	Annual registration required prior to opening to public. Registration fee required. Registration & Inspection stickers are applied to each ride.	Seasonal inspections for mobile and permanent rides. Re-inspection when violations are found. Inspection fees required.
Wyoming	1987	Fixed-Site and Mobile	Department of Agriculture	Local responsibility	Local responsibility