Amusement Rides Safety Regulations 2011


Codes and Standards

2. Amusement rides shall comply generally with either ASTM Committee F24 standards or British Standards EN 13814, which are in line with other established overseas jurisdictions.

Definition of an amusement ride

3. An amusement ride is defined as any mechanised or power-driven device that carries patrons on a fixed or restricted course, or within a defined area, designed for the primary purpose of giving them amusement, thrills, or excitement, and is available for use by members of the public.

4. This definition will not cover devices that are meant primarily for transportation, such as monorails, trams, sky trains and amphibious vehicles. The regulations also include devices or a combination of devices which do not fall within this definition but are prescribed to be amusement rides for the purposes of the Act. Examples of such rides include:

<table>
<thead>
<tr>
<th>Ride</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerial ropeway</td>
<td>Jewel Box (Mount Faber)</td>
</tr>
<tr>
<td>Indoor skydiving device</td>
<td>iFly (Sentosa)</td>
</tr>
<tr>
<td>Bungee, reverse bungee and trampoline bungee device</td>
<td>GMax Reverse Bungee Jump (Clarke Quay)</td>
</tr>
<tr>
<td>Wave-surfing device</td>
<td>Wavehouse (Sentosa)</td>
</tr>
<tr>
<td>Jump device</td>
<td>Parajump (Sentosa)</td>
</tr>
<tr>
<td>Zip line that meets certain criteria such as patron vertical displacement and height of access level</td>
<td>Megazip (Sentosa)</td>
</tr>
</tbody>
</table>

Devices which do not fall within the definition of amusement ride

5. The regulations also prescribed those devices that are not to be amusement rides under the Act. These rides have been excluded as they have a relatively low safety risk profile and/or may not be freely available to general members of public. Some examples of these rides include:

- Any amusement ride that is designed to have a total carrying capacity of not more than 50 kilograms or has a total motive power of not more than 1.1 kilowatts
- Lazy river ride
- Wave pool
- Any amusement ride that is located within the premises of any private condominium for the residents’ exclusive use
• Any amusement ride that forms part of the facilities of a private club for the exclusive use of the members and their guests

**Major Amusement Rides as a category**

6. The Act permits the classification of rides with a higher risk and safety profile as “major amusement rides” to distinguish them from ordinary amusement rides.

7. A major ride is determined using a combination of factors such as the ride’s speed, height displacement, and acceleration, and other safety considerations.

8. For a major ride, a qualified person will be required to engage and consider the advice and opinion of a conformity assessor in reviewing the design, supervising the installation or inspecting the ride.

9. Conformity assessors are third party inspection bodies with technical expertise to provide comprehensive assessment on amusement ride compliance to safety standards and codes. Conformity assessors may comprise a firm or a team of professionals with the relevant technical expertise.

10. Examples of major amusement rides prescribed in the Regulations include:

<table>
<thead>
<tr>
<th>Ride</th>
<th>Example(s)</th>
</tr>
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<tbody>
<tr>
<td>Aerial ropeway</td>
<td>Jewel Box (Mount Faber)</td>
</tr>
<tr>
<td>Bungee or reverse bungee device</td>
<td>GMax Reverse Bungee Jump (Clarke Quay)</td>
</tr>
<tr>
<td>Drop tower, indoor skydiving device or jump device where the maximum vertical displacement of the patron is 5m or more</td>
<td>iFly (Sentosa)</td>
</tr>
<tr>
<td>Ferris wheel or gyro tower where the maximum vertical displacement of the patron is 10m or more</td>
<td>Singapore Flyer (Raffles Avenue); Tiger Skytower (Sentosa)</td>
</tr>
<tr>
<td>Flume ride, river rafting ride, roller coaster or train where the acceleration the patron experiences exceeds a specific criteria</td>
<td>Battlestar Galactica (Sentosa)</td>
</tr>
</tbody>
</table>

**Stakeholders**

**Person Responsible**

11. The person responsible, who is primarily the holder of an operating permit, will be the person who has the charge, management or control of the ride. He will have the overall broad duty to ensure that the ride is operated safely and maintained at all times in a state of good working condition.

**Ride Manager**
12. The ride manager will be responsible for overseeing, managing and supervising the daily routine operation and maintenance of the amusement ride. He will be appointed by the operating permit holder and must possess qualification in a technical field plus some years of relevant experience. The qualification, practical experience and duties of ride managers are specified under the Regulations.

Qualified person

13. The qualified person (QP) is specialist professional engineer registered by the Professional Engineers Board (PEB) in the discipline of amusement ride engineering. The qualified person, who is appointed by the person responsible, will carry out specific technical duties specified in the Regulations, such as certifying technical compliance with design codes, supervising ride installation and conducting annual inspections to ensure ride safety.

Fire and Rescue Management System Requirements

14. The Act also requires the submission of a fire and rescue management system for each ride, to be approved by the Commissioner of Civil Defence. The Regulations prescribes the requirements for the fire and rescue management system for amusement rides, which include –

- Emergency response plan and company emergency response team in guidelines
- Application and renewal of certificate of compliance
- Duties of fire and rescue coordinator
- Duties of holder of operating permit

Transitional Provisions

For rides which have had their plans submitted for approval or have obtained approval under the Building Control Act, and are too far advanced in their design or installation process:

15. The Person Responsible is required to engage a qualified person to inspect and certify that the ride is fit for operation before applying for an operating permit.

For existing rides without a valid public entertainment licence and are covered under the Act or falls under the definition of an amusement ride:

16. The amusement ride is allowed to continue to operate until the end of the six months grace period from implementation of the Act, i.e. 1 December 2011. The Person Responsible will need to engage a qualified person to conduct a review, inspection and certification of the amusement ride by 1 December 2011 (or within six months from when the Regulations are in force).

17. He will also need to comply with any other conditions or directions issued by the Commissioner where applicable. He will need to appoint a suitably qualified ride manager, obtain the required insurance coverage, and the Certificate of Compliance from the Singapore Civil Defence Force for the fire and rescue management system plan of the amusement ride before the end of the six months grace period.
For existing rides with a valid public entertainment licence that expires after 1 July 2011

18. The amusement ride is allowed to operate until the permit’s expiry date. However, the person responsible will need to engage a qualified person to conduct a review, inspection and certification of the amusement ride before the permit’s expiry date.

19. He will also need to comply with any other conditions or directions issued by the Commissioner where applicable.

20. By 1 December 2011 (or within six months from when the Regulations are in force), he will have to appoint a suitably qualified ride manager, obtain the required insurance coverage, and the Certificate of Compliance from the Singapore Civil Defence Force for the fire and rescue management system plan of the amusement ride.