

NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Committee

TECHNICAL BULLETIN - OCTOBER 1999

198. Design Safety of Dodgem Cars and Dodgem Tracks

We have become aware of a common misconception that dodgem cars and dodgem tracks fall outside the scope of the industry's normal pre-use inspection requirements. This is, of course, false.

We list some of the hazards that may be involved (there may be others) :-

- Build-up and pull-down hazards.
- Inadequate delimitation systems for ensuring inadvertent access to the track area.
- Insufficient sill strength with respect to impacts.
- Hazards associated with structural collapse, etc., under wind and other loadings.
- Tripping hazards, e.g. associated with gaps between side buffers and plates.
- Unsatisfactory passenger containment design.
- Inadequate car / buffer dimensions to provide clearances for hands / arms.
- Shock and burn hazards, if voltage exceeds FELV (Functional Extra low Voltage) limits.
- Sparking, if the overhead current collectors have insufficient contact.
- It is common for dodgems to have a 5-position speed / voltage selection. In some instances the higher speeds are too high from the point of view of passenger deceleration in impacts.

Risk assessment for some of these hazards may require calculations to be checked or test results to be reviewed.

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