

NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Sub-Committee

TECHNICAL BULLETIN - JULY 1991

060. Timber Components

We are issuing this Bulletin following an accident in which a timber lighting frame collapsed into the path of the cars of a Bennett Cyclone Twist ride. Investigation showed that the failure occurred as a result of rot in the timber underneath the paintwork which had, for whatever reason, gone undetected. We are conscious of the fact that this is the third instance of failure in the fastenings of non-structural attachments that this Committee has discussed this year.

There are several issues which this incident raises. Firstly, it is important to remember that breakage of non-structural components, particularly on moving frameworks, is a potentially fatal hazard. While not intended to bear significant loads there are still material factors which may lead to the eventual failure of such components. Because of ride motion there will be dynamic forces applied to these parts and they are, of course, subject to collapse or degradation as a result of, or hastened by, environmental factors (e.g. wind loading, rot etc.).

Secondly, there is the issue of the addition of components to rides. In the accident which we have referred to above, the framework which failed was, we believe, not part of the original design. We remind Appointed Persons that they should be aware of new additions to rides and the need to ensure compliance with the design and manufacture requirements in "Fairgrounds and Amusement Parks : A Code of Safe Practice" and in "A Code of Safe Practice at Fairs : Technical Annex". Particular advice relating to the use of timber is included in the Technical Annex paragraphs 12 - 17. (Note that BS 5268 : Part 2 has been substantially revised and is now in a 1991 edition). The Technical Annex specifically requires the use of structurally graded timber.

Thirdly we draw attention to the importance of good maintenance of timber (and other) components (see Technical Annex para. 16(a)).

Finally, we remind members of the need for careful examination of timber components. Paragraphs 179 g, h, and 182 provide guidance on procedures for visual and thorough examination.