



Wessex Association of Model Railway Clubs

Research paper – risks from use of step stools at Model Railway Exhibitions

Prepared by John New and published 19 March 2009

Activity being assessed -

Use of hired out or personally provided step stools by small children visiting the model railway show.

Potential risks -

- 1) Personal injury to child from falling from the stool and impacting on hard surfaces.
- 2) Collapse of stool causing child to fall.
- 3) Damage to an exhibit if the child grabs onto it or impacts into it as a result of falling.
- 4) Injury to other visitors, trips, tantrum etc.

Assessment -

1) Falling - the stools are not high and are designed and retailed for the purpose. They are in widespread use by families for this purpose universally in general society and therefore users are familiar with the equipment. The additional distance to ground from the stool is not high and amplification of injury risk is therefore minimal. Even if an injury were to occur it is extremely unlikely to be a major one provided the action set out in relation to potential risk (3) has occurred. If a small child were to fall within the venue other "normal" risks such as the staircase or refreshment room chairs give a greater fall distance. Risk probability - Low - Consequence if risk did arise = low to medium. Outcome within acceptable parameters provided properly managed. Also note if stools are not available a child may well be lifted by a parent and the issues surrounding that are comparable or higher than the risk from stool use.

2) Maintenance of stools (Exhibition hire stock) - It is accepted that a stool may crack from fatigue. The risk of this is low provided the stools are given a visual check before issue. Risk probability - Low - Consequence if risk did arise = low to medium. Outcome within acceptable parameters provided properly managed. **Action required** - visual check on stool by rental stand crew before each re-issue.

3) Grabbing of layout / falling against layout - the risk of damage to a layout from visitor behaviour is a possibility. However if the layout is not barriered off from the crowd the risk TO THE EXHIBIT from this is no greater than from general activity. The onus is firmly on the exhibitor and show management to ensure that any layout introduced into the venue is safe and a key aspect of this is ensuring it is sturdy enough that if any person is pushed into, or falls against, it is (a) stable and (b) will not injure that person. Protection of the exhibit itself, especially if at an unbarriered event, is for the exhibitor to risk assess. Risk probability - Low. Injury consequence if

risk did arise = low. The assessor considers damage to the exhibit itself more likely to occur from open clothing, carried bags/rucksacks and poking etc than impact from a falling child. (NB See note relating to related need for safety inspection below)

4) Injury to other visitors, trips, throwing tantrums etc. - There is a potential risk from this but the show will be stewarded and the children under parental supervision. Practical experience operating the scheme at York Model Rly Show for several years has identified no significant issues from this. Risk low and no greater than from other potential trips VISITORS introduce to the venue, carrier bags, push chairs, camera bags, crash helmets etc. Additionally a contented child standing still on a stool to watch a layout reduces the risk to others in two ways (1) being slightly higher they can be more easily seen by other visitors and (2) relatively static preferable to bored and active! Risk - low. Consequence if risk did arise = low to medium. Amelioration measures in place - visual stewarding of venue and hire charge on the stools to reduce abandonment issues. Conclusion no increase in overall risk of trip hazard.

Summary of risk assessment - the introduction of step stools to a venue is within acceptable parameters, the risk is no greater than other accepted normal events and provided some simple amelioration measures are in place are considered to be acceptable.

Related issue for assessment - review of all exhibits prior to show opening to ensure they are stable and pose no danger to children, or any other visitors, from risks including sharps and items stored under the layout and behind drapes - including corners of boxes, tool trugs etc.

About the author

This section is added to summarise the relevance of the assessment. John New, the author, is Vice Chair of the WAMRC and has been involved in the organisation of model railway events since the late 1980s for Weymouth Model Railway Association, WAMRC and the York Model Railway Show. Prior to retirement he was an office manager therefore responsible for day to day Health & Safety monitoring in the workplace and was also the Emergency Planning Officer for Weymouth & Portland BC. The York Model Railway Show experience is directly relevant as YMRS have run a "step stool" rental scheme for several years and the findings from that are incorporated above.