

Recent freight derailments: The interaction of track, vehicles and freight container loads, and potential areas for improvements.

Rail Industry Meeting, - Friday 6 March 2015

Purpose of the meeting

Helping the industry work together in taking a system approach to reducing the risk from container freight train derailments. In particular to:

- Get a common understanding of what the issues are
- Be clear on the legal framework for risk reduction and co-operation
- Recognise the need for a:
 - System approach
 - Change to prevent recurrences/reduce risk
 - Fundamental challenge to the current system to identify short, medium and long term improvements
- Agree the way forwards

Actions agreed at the meeting

The actions discussed and agreed at the meeting were:

1. The industry to review their understanding of the hazards and risks associated with container freight train derailments to ensure a common understanding of the effectiveness of current risk control measures, and identify improvements to reduce the risk as low as reasonably practicable.
 - a. This review to be approached from a first principles system perspective.
 - b. The review should be based on detailed risk analysis supported by bow tie assessment. The existing SRM/PIM provides information that can form part of this review. The initial basic bow tie analysis presented in ORR's paper is a potential starting point.
 - c. The review should include consideration of what has changed/is changing on the railway that could change the industry understanding of the way in which these types of derailment can occur and the way they are modelled/assessed.
 - d. The risk analysis work should take account of views and inputs from organisations outside the rail sector with responsibilities for forwarding, loading and handling of freight containers.
 - e. This links to the cross industry working group (XIWG) proposals 1&2 (See below) to update the risk assessment and identify changes to the railway.
2. The XIWG should lead this work as it provides a good forum for taking the actions from this meeting forwards as it already includes specialist railway infrastructure (track), rolling stock and risk expertise.
 - a. The XIWG to consider, at their next meeting, how to better understand the hazard created by the load, and determine the Group's approach on engaging with the container industry (e.g. Associated British Ports (ABP), Maersk, Freightliner Roads, Rail Freight Group (RFG) to assist in gaining this understanding. The objective being for the XIWG to be able to fully take account of the load aspect in their review of the hazards and risks associated with container freight train derailments.
3. The XIWG proposed work (copied below) presented at the meeting, taking account of item 1 above, was accepted as forming the basis of a work programme.

- a. The next meeting of the XIWG will review the proposed work in light of the discussions and agreed actions at the 6th March meeting and develop/scope out a work programme.
4. The XIWG would provide ORR with formal written progress reports in 6 months and 12 months. With consideration being given to holding a second industry meeting at the 12 month report back stage to review progress.
5. The ORR to contact other enforcing authorities (e.g. VOSA, MCA, HSE) to discuss potential opportunities for seeking improvements in the packing, weighing and loading of containers across the container delivery chain and feedback to the XIWG.
6. ORR and RSSB to meet and discuss wider issues regarding safety decision making, Taking Safe Decisions Issue 2 and the linkages between the Safety Risk Model, risk assessments and managing risks so far as is reasonably practicable (SFAIRP).

XIWG proposed work (From RSSB presentation at the seminar)

1. Update of the risk assessment.
2. Identification of changes to the railway over last 10 years and in the future that could change our understanding of the way in which these types of derailment can occur and the way they are modelled/assessed.
3. Assess the potential benefits that could be gained from adding an additional longer wavelength track twist measurement/criteria.
4. Review of existing loading practice and the guidance provided for vehicle testing.
5. Assess the need and feasibility of testing and / or computer simulations of existing wagons to establish limiting offset loading conditions and related wheel unloading limits.
6. Analysis of GOTCHA measurements to establish existing wagon uneven load profile distributions.
7. Examine the rules and regulations around the loading of verification of containers as a wider transport issue.