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15 September 2016

Dear Ian,

The interaction of track, vehicles and freight container loads: Industry progress on risk reduction.

Thank you for your letter, dated 15 July 2016, in which you asked us to consider:

- Our involvement in the Cross Industry Freight Derailment Working Group (XIFDWG) and whether there is more we can do to support and drive the progress of the group and increase the pace of delivery;
- What we have done since the ORR led industry workshop in Crewe in March 2015 to review our own company risk assessments, and action taken as a result to enhance our arrangements.

Our involvement in the group is to oversee and coordinate industry activity, such that a whole system response to the issue is effectively developed. RSSB continue to provide support to the group in the following three broad areas:

- Technical expertise in rail infrastructure and rolling stock engineering, risk assessment, and system safety.
- Research through the RSSB Industry research programme, and the strategic partnership arrangements with Huddersfield University;
- Meeting chairmanship, programme management and meeting management support;

Although RSSB does not hold a safety certificate, or safety authorisation and therefore do not have direct responsibility for safety management, we are working with industry to facilitate effective co-operation. We are progressing all of the above within the rail industry's framework of Taking Safe Decisions (TSD), and the principles and approach outlined in the Leading Health and Safety on Britain's Railway (LHSBR) publication.

Key recent activities are:

1. Agreed a structured **programme of work** with nine distinct workstreams.
2. Reviewed, revised and agreed the group's **terms of reference** and governance arrangements.

3. Under Workstream 1 (Update of the risk assessment) we have, with industry, undertaken a systematic risk assessment exercise. This has identified current risks and their control measures, assessed the strength of current risk controls and has described proposed improvements. A prioritisation process has been employed to determine the improvements according to safety benefit and effort. From this we have agreed the **Top 10 control measures** for further study. A summary report was sent to you on 15 August 2016.
4. Under Workstream 2 (Identification of changes to the railway over last 10 years), the Huddersfield University team, commissioned by RSSB, have published a report on "Calculation of Freight Vehicle Track Twist and Cyclic Top **Derailment Frequency**".
5. Under Workstream 3 (Assess the potential benefits that could be gained from adding an **additional wavelength(s)** to track twist measurement/criteria), interim results were presented to the XIFDWG meeting you attended in May 2016.
6. Under Workstreams 5, 6 and 7, three projects have been identified as **'key enablers'**. Two of these are progressing under RSSB's R&D Programme: "Quantifying the distribution of unevenly loaded containers carried by road and rail" and "Investigating the effects of offset loading in containers on risk of derailment on twisted track". The third project, on Gotcha, is being led by Network Rail.
7. Under Workstream 8 (**Recommendations Mapping**), the group has recently undertaken a detailed assessment of the relevant RAIB recommendations and has mapped these to its current activities. A summary of this work is currently being prepared and will shortly be shared with the group members. This work clarifies the limits of the work done by the group.

Current timescales for next steps are:

- The 'key enabler' R&D study on "Quantifying the distribution of unevenly loaded containers carried by road and rail" is expected to be completed in time to report to the next XIFDWG meeting in on 7 October.
- The other two 'key enabler' projects (Simulation of container wagon sensitivity to offset loads and track twist and the continuing work on Gotcha) are both currently estimated to complete and report in summer 2017.

Once the results of these three enabler projects are available will the group be able to determine what further work needs to be done, if any, to set thresholds for offset loads and review standards for wagon tests. These could then lead to indenting offset loads at the start of UK journeys and possibility of implementing an online Gotcha system with practicable procedure.

In parallel, Network Rail's study into alternative wavelength track monitoring is progressing well and is also expected to report at the meeting on the 7th October.

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In terms of enhancing the industry's collaborative arrangement, in addition to continuing with the work above, the RSSB team have recently held discussions with members of National Freight Safety Group and senior managers at Network Rail, and to strengthen the reporting and escalation arrangements. As part of those discussions we agreed to simplify governance arrangements. XIFDWG has now been adopted by the NFSG with a reporting line to SSRG. RSSB is using its key meetings, and industry networks to raise the prominence of the work of the group, and to ensure that the senior stakeholders in key organisations are aware of the programmes importance, and their need to engage with it in their own delivery activity.

Best regards

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