

Rail Safety & Standards Board

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Chief Executive

Mr Bill Emery
Chief Executive
Office of Rail Regulation
One Kemble Street
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Dear Bill

Rail Industry Environmental Performance Indicators

This letter follows on from our letter of December 2007 setting out the industry's proposals for the development of environmental indicators to be potentially reported to the Office of Rail Regulation (ORR).

In the previous letter the industry proposed reporting on two environmental indicators immediately and an expanded set of environmental indicators after further development work. This letter updates progress in both of these areas.

Environmental Indicators proposed for immediate reporting

The indicators proposed were:

- Total traction energy consumption (aggregated) and
- Total carbon dioxide emissions from traction energy (aggregated).

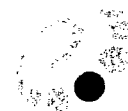
A protocol has been developed by an industry working group, facilitated by RSSB, which defines these indicators and the process for collecting data. This was agreed within the industry and with the ORR and approved by the Rail Sustainable Development Group (RSDG) at the 18 June 2007 meeting. The rail industry has supplied data for these indicators covering the years 2005-06 and 2006-07 which were published in ORR's National Rail Trends Yearbook 2007-2008, beginning a cycle of annual reporting.

Environmental indicators proposed for potential reporting to ORR in the future

The industry proposed the following list of indicators for potential future reporting to ORR after further development.

- Traction energy efficiency and carbon intensity indicators
- Air emissions
- Noise impact

18/12/08



- Non traction energy consumption
- Non traction carbon intensity
- Waste material generated
- Water consumption

Table 1 in Appendix A provides a detailed update on their development.

If you have any queries on this submission or require further detail please do not hesitate to contact me.

Yours sincerely

Len Porter

c.c. Members of the Rail Sustainable Development Group

APPENDIX A

Table 1 – Progress on the development of proposed future environmental indicators

Issue	Indicator as defined in December 2007 letter	Work originally thought to be required 2007	Original timescale	Progress and proposed way forward 2008
Short term				
Traction energy efficiency and carbon intensity indicators	This indicator will aim to illustrate the energy efficiency and carbon intensity of rail operations <i>per se</i> , independent of passenger numbers or freight volume. For example energy normalised by seat km.	Work is required to develop the data to normalise energy consumption data in this way.	It has been agreed that data reporting for the industry voluntary commitment will be complete by the end of Quarter 3 2008.	RSSB facilitated the creation of a working group to develop the protocol for this indicator. The protocol for the collection of passenger data has now been developed and was approved at the RSDG meeting on the 6th November 2008. This data will be provided annually to ORR at the same time as total traction energy consumption and carbon emissions. Data for this indicator covering the years 2005-06, 2006-07 and 2007-08 will be provided to ORR in early 2009. The working group concluded this indicator is not of relevance to rail freight operations as it is more concerned with separating energy efficiency from increased passenger loading on passenger services. RSDG agreed this at their 6th November 2008 meeting.

Issue	Indicator as defined in December 2007 letter	Work originally thought to be required 2007	Original timescale	Progress and proposed way forward 2008
Short term continued				
Air emissions	Likely to include average GB rail emissions figures for CO, SO _x , NO _x and PM. These can be calculated using the energy consumption data and conversion factors. The conversion factors must be agreed within the industry and the accuracy of calculating at such a high level tested prior to the industry's first reporting cycle.	This indicator requires work on collection procedures and conversion factors.	Data likely to be ready for reporting in Aug 2008	RSDG created an Air Quality Working Group (AQWG) to look at the development of this indicator. This group reported back to RSDG on 6th Nov 2008. The AQWG identified that emissions factors are available to calculate all emissions from electric traction and SO₂ emissions from diesel at present. However, reliable, accurate emissions factors have not been found for the calculation of all other emissions from diesel traction. It is scientifically possible to carry out a measurement programme to obtain accurate emissions factors but the AQWG's review has estimated that this would be cost prohibitive and deliver no operational benefit to the industry over and above improvements being driven by legislation. RSDG have requested that the AQWG look again at the issue of conversion factors, commissioning research if necessary, to establish the validity of available conversion factors. It is anticipated that they will report back to RSDG in early 2009. RSDG also agreed that no emissions reporting should be carried out until a full suite is available.

Issue	Indicator as defined in December 2007 letter	Work originally thought to be required 2007	Original timescale	Progress and proposed way forward 2008
Short term continued				
Air Quality cont'd				RSDG will update the ORR on proposals for emissions reporting after the AQWG reports back to RSDG in early 2009.
Noise impact	This indicator should show the number of people affected by rail noise above a threshold level. The indicator and the threshold level would be drawn from the DEFRA and Scottish Government Strategic Noise Mapping exercises which is based on their noise calculation model.	The data for this indicator is being produced in response to the timescales for the Environmental Noise Directive. It is assumed that the ORR can obtain the noise data direct from DEFRA and the Scottish Government.	The data for Scotland is available now. Timescales for England and Wales are not clear but their mapping should be complete by the end of 2007 to comply with the END timescales. The availability of this data is completely dependant on the national mapping programmes.	Noise issues are being monitored for the industry by the Railway Forum Noise Working Group (which is attended by representatives from RSSB, RSDG, ORR, ATOC and others). Strategic noise maps were published as follows: - Scottish Government (SG) - Sept 2007 - Defra (for England) - May 2008 - Welsh Assembly Gov't (WAG) - June 2008 The SG is currently consulting on draft noise action plans. The WAG is currently consulting on the noise action planning process and Defra is soon to commence a similar consultation. At present the Governments' final use of the data in the maps is unclear and it is hoped this will be clarified by the consultation from Defra. It is anticipated further clarification will determine what the data is suitable for and any proposed threshold levels. Until this becomes clearer the development of the indicator cannot progress. Once all of these issues are clarified RSSB will facilitate the development of a protocol

					to be signed off by RSDG.
Issue	Indicator as defined in December 2007 letter	Work originally thought to be required 2007	Original timescale	Progress and proposed way forward 2008	
Medium term					
Non traction energy consumption & Non traction carbon intensity	It is proposed that the non-traction energy and carbon indicators will be based on data collected in response to the Carbon Reduction Commitment (CRC) scheme currently being discussed with Defra.	Defra's current proposals require energy reporting for all sites with annual electricity consumption from mandatory half hourly meters in excess of 6,000 MWh. Non-traction CO ₂ emissions would be calculated from this data.	It is anticipated that data reporting for non-traction energy will be aligned to the requirements of the CRC scheme which are yet to be finalised.	This has been addressed by a working group who concluded that this work should be aligned to CRC reporting timescales. It is anticipated that the reporting will be required, for the first year's emissions, by end July 2011, which will cover the period Oct 2009 to March 2010. Once the process is clear RSSB will facilitate the development and approval of a protocol to clarify the reporting of this data to ORR.	
Longer term					
Waste material generated & Water consumption	Not yet defined.	These indicators are at a much earlier stage in development and require the development of definitions and a more detailed understanding of the feasibility and resource implications of data collection.	It is proposed that further work is done by the industry on potential waste and water indicators and that RSSB and RSDG brings forward more detailed proposals in spring 2009.	Further thinking on these indicators is planned for presentation to RSDG in Spring 2009.	