

Report 21/2016: Collision at Barrow-upon-Soar

On publication of RAIB's report concerning a collision between a train and a piece of equipment at Barrow-upon-Soar, Leicestershire, Simon French, Chief Inspector of Rail Accidents, said:

"This investigation highlights the vital importance of wagon maintenance to the continued safe operation of freight trains on the UK's railways. In this case, the condition of the electrical system used to control a wagon-mounted unloading boom had been allowed to deteriorate to the point where reliable operation could no longer be assured. An absence of adequate maintenance led directly to the boom slewing into the path of a passing express passenger train.

"This is not the first time the RAIB has identified poor wagon condition as a factor in an accident. In the last two years the RAIB has investigated four freight train derailments where the condition of a wagon was a factor. An example is our investigation into the derailment at Washwood Heath in March 2015 ([report 01/2016](#)) which revealed that excessive wear on the bogie centre pivot liner had not been detected by the maintainer.

"Since May 2013, it has been a legal requirement that every freight wagon is assigned to a body that is certified to act as the 'entity in charge of maintenance' (ECM). Each ECM is required to establish a system of maintenance that ensures that all vehicles for which it is responsible are safe to run on the railway network.

"Our investigations into the accidents at Washwood Heath and Barrow-upon-Soar have caused me to question the extent to which ECMs have really understood the implications of what is now required of them. Of particular concern in both cases was the lack of proper understanding of the activities that were required to keep the wagon in a fit condition to run, and the consequent absence of a suitable system of maintenance.

"ECMs now play an important role in the rail industry's management of risk. To meet this challenge they need to ensure that they properly understand the characteristics of the wagons for which they are responsible, and their maintenance requirements. They must also consider the potential consequences of equipment failure and fully assess the associated risks. It is vital that ECMs understand the point at which a wagon becomes unsafe to operate and should be withdrawn from service – and that there are robust processes in place to prevent the operation of a wagon once it has reached this point.

"Our investigation into the accident at Barrow-upon-Soar identified the absence of proper maintenance systems to cover the wagon's electrical components. It is important that ECMs ensure that they establish a maintenance system that encompasses all components on a wagon. Such a system will need to consider all of the hazards associated with the electrical systems – this should never be limited to the risk to maintainers (eg electric shock and fire) but also the potential for wrong side failure leading to an unsafe outcome or the failure of a safety function to operate (such as emergency stop)."

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