

## Provision of Expert Reports, Opinion and Expert Witness to the Ladbroke Grove Rail Inquiry Lord Cullen's Inquiry Secretariat



### *Independent expertise for the public inquiry into major railway disaster*

Lord Cullen's Inquiry into the Ladbroke Grove accident retained Entec in October 1999 to provide independent expert advice and opinion on wide-ranging aspects of safety in the railway systems throughout the UK.

Four specific reports were commissioned and presented in expert witness form to the inquiry. A summary of findings is as follows:

- **The Railway Safety Case Regime:**  
The approach in the UK to regulation of the privatised railway industry, involved the production of 'safety cases' to demonstrate safe operation by the infrastructure controller (Railtrack) and each train and station operator. In the past, the train and station operators' safety cases were accepted by Railtrack, under a system described in its safety case. Each operator retained responsibility for its own safe operation, and Railtrack was responsible for safety of the track and signalling systems, plus the stations it operates. Entec has reported on what a safety case should do, and on how its contents may be validated and verified by internal and external audit. An addendum report was produced on the contents and use of a selection of railway safety cases and the compliance audits carried out on the same operating companies, illustrating both good practices and deficiencies in the current regime.

- **Safety Management and Culture:**  
The railway industry has the clear potential to kill or injure many people, amongst employees and the public alike. In common with other hazardous industries that are governed by stricter safety regimes, such as oil, gas, chemicals and air transport, safety should also be paramount in railway operations. Individual and collective safety responsibilities need to be clear, and not clouded by commercial considerations. The principle of 'safety first and last' should pervade the whole industry; all personnel need to be aware of their responsibilities, and have a clear appreciation of human factors. In practice, financial penalties and adverse publicity associated with delayed or cancelled trains may be perceived as more important than the consequences of failure to maintain the highest standards of safety. Nevertheless, operational safety tends to go hand-in-hand with reliability and efficiency, and vice versa, so emphasising the basic imperatives for effective integration of safety and operational management systems.
- **Group Standards System:**  
The UK has set up a goal-based safety regime, the primary regulatory instrument being the safety case to demonstrate safe operations. There is a need for common standards, particularly where a number of rail

operators interact with each other and with the infrastructure controller. In the UK, these standards have been controlled by a directorate, related to Railtrack. Some parts of the industry believe that the directorate has not always acted in the best interests of all participants, and that there has been evidence of the potential for conflict between the goal-setting safety case approach and prescriptive standards.

- **Accident Investigation:**  
The primary purpose of accident investigations should be to learn lessons to prevent recurrence of similar incidents. In a fragmented industry, such as the rail system, investigation can be led into apportioning blame and unloading corrective actions onto others. In this situation, improvements are not made, and the same mistakes do recur. This is not to say that people or organisations are not to blame for accidents, but the investigation should probe deeply enough to uncover the fundamental causes, and not merely lay blame for behaviour which had its roots in a defective system of operating safety and safe working practices.

The inquiry also commissioned our experts to attend specialist seminars on the employees' perspective on safety, and an experts' meeting on risk assessment, to assist the inquiry in these detailed and controversial areas.

