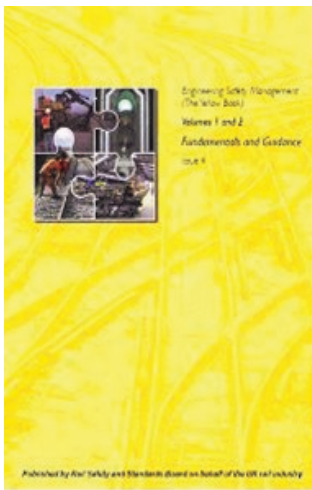


# YELLOW BOOK 4

By Bruce Elliott, Atkins



With Yellow Book 4, volume 2 still warm from the presses, it is timely to try to answer a few commonly asked questions about the book, such as:

- What is this “Yellow Book“ thing and where did it come from?
- What sort of topics does it cover and what does it have to say about them?
- What is special about it?
- Is it important and should I read it?
- How do I get hold of a copy?

I will try to provide answers and along the way dispose of some commonly-held myths.

Let's start with what the Yellow Book is. It is a handbook on railway Engineering Safety Management. Its declared aim is “to help people who are involved in railway engineering (either changing the railway or maintaining it) to make sure that their work contributes to improved safety and get changes to the railway accepted more efficiently”. It summarises legal and professional obligations and provides guidance, distilled from standards and the experience of many railway professionals. The guidance extends beyond analytical and design matters to cover management and cultural issues and, although it is focussed on work with a significant engineering element, it is certainly not just written for engineers.

The Yellow Book has its roots in British Rail because it derives from a set of work instructions written in 1993 for the Signalling and Telecommunications department within the Network SouthEast business. However it was first issued as a book after privatisation in 1996 when Railtrack published it under the unwieldy title of the “Electrical Engineering and Control Systems Engineering Safety Management System”. The cover was yellow and it quickly acquired the shorter nickname of the “Yellow Book”, now officially recognised.

Alert readers will have spotted that the official title reflected a slight broadening of scope of the book to cover electrical engineering as well. This is a theme that continues throughout the history of the Yellow Book, as figure 1 illustrates.

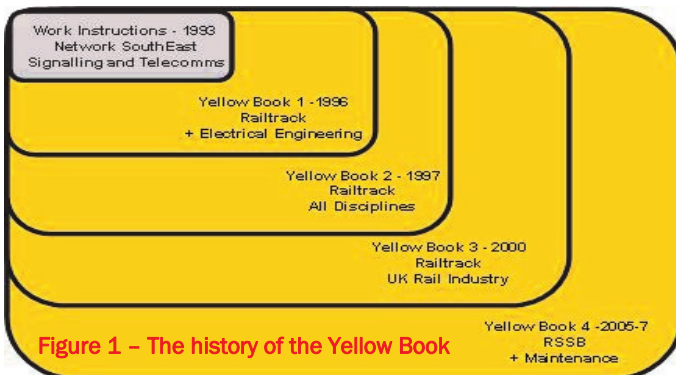


Figure 1 – The history of the Yellow Book

Yellow Book, issue 1, or “Yellow Book 1” for short, was replaced by Yellow Book 2 in 1997, now written to cover all engineering disciplines. But Yellow Book 2 was still a Railtrack publication. However this was soon to change. Railtrack’s then Safety and Standards Director, Rod Muttram, took the far-sighted decision to convene a cross-industry Steering Group including train operators, manufacturers, consultants and, importantly, London Underground. Under the Steering Group’s guidance, the Yellow Book was overhauled and issued as Yellow Book 3 in 2000, still formally a Railtrack publication but written for and on behalf of the UK rail industry.

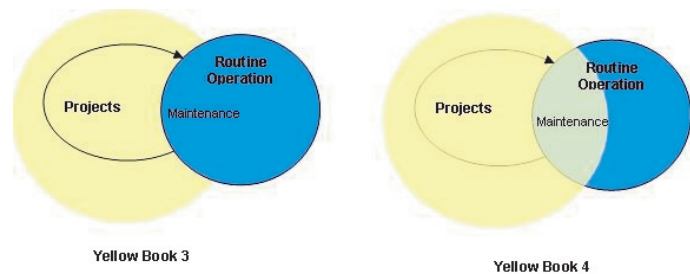
These collegiate arrangements have remained in place although now under sponsorship of the Rail Safety and Standards Board. Meanwhile the readership of the book has expanded still further, with users in Europe, South East Asia and Australia, and the Steering Group acquired a Dutch representative for a period.

So, at the start of the new millennium, the question was, “Where next?” Of course the answer could have been, “Nowhere”; one cannot keep extending the scope of the Yellow Book forever. However, one clear anomaly remained. Throughout its life so far, the Yellow Book had been concerned with projects, that is, with making changes to the railway. It is clear that maintaining the railway needs a systematic approach to managing safety just as much as projects do.

The Yellow Book Steering Group had hoped that some other manual would arise – a magenta or mauve or maroon book, perhaps – that would cover the same topics as the Yellow Book but within the maintenance phase. However, although there is a huge amount of published good practice in this area, nothing seemed to cover quite the same ground.

When you think a bit about it, it becomes clear that there is no clear dividing line between projects and maintenance as there are activities which could be classified under either heading and the Yellow Book Steering Group considered that there should be a common underpinning for both. So it took the decision that the scope of the next and current issue of the Yellow Book, Yellow Book 4, should cover the whole lifecycle – projects and maintenance (see figure 2).

Figure 2: The change of scope of the Yellow Book between issue 3 and issue 4



Yellow Book 4 had a slightly prolonged birth. The introductory part was issued in 2005 with some interim guidance but the full version was only printed in August 2007. One reason for the difference in time between the two publication dates was significant discussion on the role of standards. Traditionally, the Yellow Book has tended to be used for work that has a degree of novelty and for which analysis from first-principles and risk assessment is appropriate. Yellow Book 3 recognised quite explicitly that there were situations where risk was better

controlled through standards and procedures, but readers of Yellow Book 3 in such situations would have found limited help with distinguishing the parts of the guidance which were relevant to them, such as the guidance on safety culture, from those parts which were not, such as the guidance on safety cases. Yellow Book 4 is much clearer on this. Where the guidance in a chapter may need adaptation for a particular situation, then this is pointed out. As such, Yellow Book 4 is designed to serve better those railway professionals, including many signal engineers, whose work affects safety but who control risk through the disciplined and skilful application of standards, procedures and assessments.

Yellow Book has a number of attributes which distinguish it from other sources of guidance:

- The Yellow Book is written by railway people for railway people and is a vehicle for passing on the hard-won experience of many dozens of railway professionals. It is not a standard and we make use of the latitude that this offers us. Where the most useful thing that we can tell you about a problem is that there is no agreed best way of solving it then we tell you that. It is, of course, not mandatory but it does have the authority of the consensus among many, many people that it contains sound advice;
- It is a shining example of co-operation across the UK railway with contributors from across the engineering disciplines and beyond and from both the main-line and the underground railway;
- It is written to be read by people from all walks of life. The introductory section (volume 1) bears a Plain English certificate. This is important because there is a growing realisation that delivering safety is a team effort that requires involvement from a whole organisation – certainly at Atkins we send directors and senior managers in finance and human resources on Yellow Book training;
- The guidance is structured under a number of short, plainly-written fundamentals. The fundamentals are set out in volume 1. These not only provide common ground for everyone to agree on, they also provide a useful degree of flexibility. So for example, there is a fundamental called “Evidence of Safety” which reads, “*Your organisation must convince itself that risk associated with its activities and responsibilities has been controlled to an acceptable level. It must support its arguments with objective evidence, including evidence that it has met all safety requirements.*” The Yellow Book offers guidance in volume 2 on one way of implementing this fundamental, through safety cases, but is very clear that if you have another way of putting this fundamental into practice that works then no-one is suggesting that you change it;
- It is far more than a book. There is a web site ([www.yellowbook-rail.org.uk](http://www.yellowbook-rail.org.uk)) where you can download the book for free and find out how to obtain paper copies. The web site provides some additional pamphlets with more specialised guidance and links to training providers who now offer a wide range of courses: not just the well-known 2-day course for project engineers, but a 1-day version for project engineers who control risk through standards and additional courses for maintainers, asset managers and senior managers. Finally, there are regular user conferences of which the next (details of course on the web site) is on 27 November 2007.

If I have done my job then some of the commonly-held myths about the Yellow Book should now be straightforward to demolish:

- 1 Myth: The Yellow Book is a standard  
No. The Yellow Book is a book – a book containing an authoritative distillation of good practice – but a book, nonetheless.
- 2 Myth: The Yellow Book makes your life harder  
No. The Yellow Book adds no obligations that you do not already have; it just provides guidance on how to discharge your existing obligations.
- 3 Myth: The Yellow Book is just for people working on projects  
No. it used to be true of course but no longer, now that Yellow Book 4 is issued.
- 4 Myth: The Yellow Book is just for engineers  
No. Volume 1 in particular is written for everyone.
- 5 Myth: The Yellow Book is *just* for people working with signalling  
No. It covers all engineering disciplines.
- 6 Myth: The Yellow Book is *not* for people working with signalling  
There is no law that says that myths have to be consistent with each other! The answer is the same as for the previous myth.
- 7 Myth: The Yellow Book is just for people who are doing something novel  
No. Well not entirely at least. There *are* some parts that are specifically written for such people but they are clearly identified and there is a great deal of value to railway professionals who control risk through the disciplined and skilful application of standards and procedures.

So that just leaves the question “Should you read it?” I won’t suggest that everyone should read the whole book, certainly not in one go. Volume 2 is intended to be used as a reference book, referred to as and when necessary. But I do hope that, after reading this, you will invest twenty minutes in reading volume 1. By the time you get to the end you will be able to form your own view about whether to carry on reading or not.

### **The Author**

Bruce Elliott was involved in the Yellow Book from the start and has remained involved ever since. He was the manager of the project for Network SouthEast mentioned in the article and edited Yellow Books 2, 3 and 4. He didn’t edit issue 1 because he also maintains a career as a practising safety engineer which kept him busy at the time. He has developed and presented a great number of Yellow Book training courses.

He is employed at Atkins where, among other things, he is a lead presenter for Atkins Lloyd’s Register Training, a collaboration between the two companies to deliver Yellow Book training. He is hugely grateful to have had the chance to work on the Yellow Book with railway professionals of great wisdom and generosity. He can be contacted at [bruce.elliott@atkinsglobal.com](mailto:bruce.elliott@atkinsglobal.com).

## An Entry in the Train Register

ISBN 978 0 9514636 1 1  
192 Pages  
78 Illustrations  
(32 in colour)

J.D. Francis

The 1970s was the era of the BR Blue railway. Many routes were still signalled with semaphores including some key main lines such as that in the West of England. For those wishing to learn more about mechanical signalling operations, signal box working beyond the basics, and signal box life this is a book for you.

This book describes John's personal experiences during the first phase of time that he was a West Country signalman in the 1970s whilst working at various main line signal boxes including Whiteball Siding, Witham and the many boxes in and around Newton Abbot. This was in the days of mechanical signalling, diesel hydraulic locomotives and when a variety of passenger and freight trains still ran to and from a multitude of destinations. Part biographical, part descriptive, this is a factual work recording the era, the operation, the traffic and the way of life on British Railways more than 30 years ago. It highlights the dedication of railwaymen and how the railway was a 24 hour, seven day a week affair, with trains safely signalled by the men posted in their boxes along the line still using Victorian technology.

Brought together in the ten chapters are the signal box, the signalman's way of life, his role and his responsibilities in the context of the main line diesel railway before the era of the High Speed Train. This was when first generation diesel locomotives were being superseded by newer traction but much of the traffic and methods of railway operation were descended from steam days. The period was one of social change with high inflation, the three day week and some very hot summers.

This is the first time that behind the scenes details of these specific signal boxes and how operations that were performed at them have been recorded. All of the signal boxes concerned have long been abolished resulting in this work forming a unique historical record.

The evergreen appeal of the West of England is tapped as the story unfolds from Whiteball Tunnel to Westbury and around the famous sea wall at Dawlish to Newton Abbot and the South Devon banks. A wealth of photographs, most never before published, bring alive the exterior and interior of many of the boxes.

The combination of the signalman's inside view set in a part of the country that generates much interest amongst railway readers gives this work its unique selling point. There are very few books covering the signalling and operation of the railway.

This book does not set out to define the basic principles of signalling, in the way a text book would, but to highlight the way of life on the railway and the special features that could be found in how this part of the network was operated at the time.

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