

Shah, Chandrika

From: John Cartledge [John.Cartledge@londontravelwatch.org.uk]
Sent: 31 May 2007 13:25
To: Shah, Chandrika
Subject: EVALUATION OF THE RAILWAY SAFETY REGULATIONS 1999
Attachments: PF+LTW reply to evaluation of RSRs 1999.doc

Chandrika :

I attach a response sent on the joint behalf of Passenger Focus and London TravelWatch.

Regards, JC.

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Organisation: Passenger Focus *and* London TravelWatch

Contact Details: (optional) John Cartledge

Role in Organisation Safety Policy Adviser

Introducing the regulations

1. How was your organisation affected by the Railway Safety Regulations 1999, and on which elements (e.g. TPWS, Mark 1 rolling stock) of them did you take action?

No direct effect, because we are not railway operators.

2. What were the main challenges your organisation faced in meeting the requirements of the Railway Safety Regulations?

None, as they do not apply to us directly (other than fielding media requests for our views on whether operators' applications for temporary exemptions should be permitted!).

Outputs of the regulations

3. Do you think that the Regulations have achieved their purpose and intended effect, as described in paragraph 4 above?

Yes

4. Do you think that the Regulations have achieved any other benefits?

Yes

If you have answered "Yes", please provide details

Removal of much antiquated rolling stock and its replacement by modern units with superior performance characteristics.

5. Considering your organisation's costs, how do you think the costs involved compare to the benefits achieved?

Not applicable.

6. Given that the Health and Safety Commission saw regulations as the only way of tackling these issues, do you believe the same benefits could have been achieved by a non-regulatory approach?

No – or at least, not in anything like the same timescale, because by a simple value-for-money test these improvements are unlikely to have met the criteria of “reasonable practicability” needed to satisfy the requirements of the health and safety at work etc Act.

Future of the regulations

- 7 Is your organisation/industry experiencing difficulties with the Regulations in their present form?

No

8. Do you think these Regulations should be retained?

Yes – to ensure that the higher safety specifications which they require the industry to meet continue to be delivered.

9. If they are retained, can you suggest any ways in which the regulations could be improved?

No.

10. If they are revoked, can you foresee any difficulties which would result?

It is possible (though unlikely) that operators might seek to achieve economies by reintroducing lower-specification rolling stock, and/or abandoning the use of TPWS.

Shah, Chandrika

From: Adrian Shooter [Adrian.Shooter@chilternrailways.co.uk]
Sent: 31 May 2007 14:52
To: Shah, Chandrika
Cc: Martin Talbot; Roger Cook
Subject: FW: EVALUATION OF THE RAILWAY SAFETY REGULATIONS 1999 - My Views
Attachments: Untitled Attachment; ORR-#275126-v1-Evaluation_of_RSR_1999_-_Web_Version.DOC

From: Shah, Chandrika [mailto:Chandrika.Shah@orr.gsi.gov.uk]
Sent: 31 May 2007 08:17
To: jonathan.bray@wypte.gov.uk; r.elliott@manchester.gov.uk; robertsmith@centro.org.uk; info@tuc.org.uk; mrejones@supanet.com; richard.brown@eurostar.co.uk; ianbrown@tfl.gov.uk; charles.horton@southeasternrailway.co.uk; a.scott@rmt.org.uk; karin.kilbey@hsbc.com; jcandfield@riagb.org.uk; george.muir@atoc.org; wotho@aol.com; keith.heller@ews-railway.co.uk; tony@rfg.org.uk; aheath@merseyrail.org; hazel.cheney@merseytravel.gov.uk; mark.hopwood@c2crail.co.uk; mary.dickson@firstgroup.com; anthony.smith@passengerfocus.org.uk; john.cartledge@londontravelwatch.org.uk; davidb@sypte.co.uk; ken.mackay@nexus.org.uk; john.jagger@vtg-rail.com; paul.francis@porterbrook.co.uk; knorman@aslef.org.uk; railinfo@railwayforum.com; vernon.barker@firstgroup.com; michael.parker@drsl.co.uk; mike_noakes@baa.com; fitzsimonse@freightliner.co.uk; tgwu@tgwu.org.uk; alison.forster@firstgroup.com; tony.collins@virgintrains.co.uk; cpt@cpt-uk.org; Gary.stewart@northernrail.org; martind@arriva.co.uk; walmsleyd@cpt-uk.org; nick.brown@serco.com; andrew.haines@firstgroup.com; paulross2@tfl.gov.uk; Faux, Sarah; chalkleyd@tssa.org.uk; chris.wadey@angeltrains.com; bill.reeve@scotland.gsi.gov.uk; robert.gifford@pacts.org.uk; steve.banaghan@centraltrains.co.uk; elaine.holt@firstgroup.com; alan.sanderson@gner.co.uk; andy.byford@southernrailway.com; adrian.shooter@chilternrailways.co.uk; garry.raven@midlandmainline.com; ron.culley@spt.co.uk; bill.hillier@hra.gb.com; paul.smith@gbrailfreight.com; david.burton@tube.tfl.gov.uk; warrick.dent@networkrail.co.uk; colin.dennis@rssb.co.uk; andrew.chivers@onerailway.com; robert.newman@dft.gsi.gov.uk; blcook@swtrains.co.uk
Cc: Webster, Calum; Lee, Steve
Subject: EVALUATION OF THE RAILWAY SAFETY REGULATIONS 1999

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Annex A

Your views

Organisation:

Chiltern Railways

Contact Details: (optional)

Adrian Shooter

Role in Organisation

Introducing the regulations

1. How was your organisation affected by the Railway Safety Regulations 1999, and on which elements (e.g. TPWS, Mark 1 rolling stock) of them did you take action?

TPWS

2. What were the main challenges your organisation faced in meeting the requirements of the Railway Safety Regulations?

Technical problems related to fitting TPWS.

Time Trains were out of service.

Outputs of the regulations

3. Do you think that the Regulations have achieved their purpose and intended effect, as described in paragraph 4 above?

Yes **X**

2

No ☐

If you have answered "No" above, in which respects and why not?

4. Do you think that the Regulations have achieved any other benefits?

Yes ☒

No ☐

If you have answered "Yes", please provide details

1. **A result has been the hastened introduction of better, newer, trains.**
2. **A future benefit of TPWS – which has not yet been manifest – is that it should be possible to rely on it to mitigate various signalling layout risks (eg. Short overlaps) and thus reduce cost.**

5. Considering your organisation's costs, how do you think the costs involved compare to the benefits achieved?

The costs to this Company were fairly low, as were the benefits since we already run modern trains and have A.T.P. on much of our route. This provides greater safety benefit than TPWS.

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6. Given that the Health and Safety Commission saw regulations as the only way of tackling these issues, do you believe the same benefits could have been achieved by a non-regulatory approach?

Yes ☐

No ☒

If you have answered "Yes" above, please explain why.

Future of the regulations

- 7 Is your organisation/industry experiencing difficulties with the Regulations in their present form?

Yes

No ☒

If you have answered "Yes", please explain why.

8. Do you think these Regulations should be retained?

Yes

No ☒

9. If they are retained, can you suggest any ways in which the regulations could be improved?

10. If they are revoked, can you foresee any difficulties which would result?

No

Shah, Chandrika

From: Adam Smith [ajs@railwaysignalling.co.uk]
Sent: 05 June 2007 16:07
To: Shah, Chandrika
Subject: Feedback on 1999 regs

Dear Sir/Madam,

I've been carrying out research on train protection for a report I'm compiling for a project that I'm currently involved in with regards the these regulations. There are several sources that put the cost per fatality for implementing TPWS in the region of £10 to £15 million. See the following link for one example:
<http://www.cfit.gov.uk/docs/2004/railsafety/railsafety/03.htm>

Given that a reasonable figure for the value of a fatality would be in the region of £2 million, it could be argued that the amount spent on TPWS is grossly disproportionate to the benefits that have been achieved. In fact that money probably could have saved significantly more lives if it was spent on initiatives to prevent, for example, trespassing, which accounts for far more fatalities on the railways than train accidents do.

I think in the future we should make sensible decisions on where money is spent instead of bowing to media hysteria such was the case following Southall and Ladbroke Grove.

It appears that the case for ERTMS also cannot be justified on safety reasons due to the inordinate costs (£99 million CPF), but at least with ERTMS it offers more than just train protection and therefore can be justified as a complete railway signalling package as opposed to retrofit solutions that do not. The clause in the regulations requiring fitment of a train protection system that continuously monitors train speed and prevents signals being passed at danger where reasonably practicable should be reviewed. Since retrofitting with ATP or installing ATP with new colour light signalling systems cannot be justified any more given the lack of market availability and continuing reliability issues. Also it may become mandatory to fit ERTMS to conventional lines in due course and is already mandatory to fit ERTMS to high speed lines. Based on this, it would be more reasonable to require ERTMS where reasonably practicable instead of the former, because ERTMS provides more benefits than just safety.

Notes:
The Regs
do not
specify
the type

of train protection system

I hope my comments are useful?

Regards

Adam Smith
Railway Signal Design Ltd.

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29/06/2007

Shah, Chandrika

From: Emma Hind [Emma.Hind@northernrail.org]
Sent: 19 June 2007 09:13
To: Shah, Chandrika
Cc: Lesley Calladine
Subject: Evaluation of the Railway Safety Regulations 1999
Attachments: ORR-#275126-v1-Evaluation_of_RSR_1999_-_Web_Version.DOC

Hello

Please find attached Gary Stewarts comments re the above regulations

Kind regards

Emma Hind
PA to Safety and Assurance Director

Northern Rail Limited
Safety and Assurance Team
Northern House
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9 Rougier Street
York
YO1 6HZ

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29/06/2007

Annex A

Your views

Organisation: Northern Rail

Contact Details: (optional) Gary Stewart, Northern Rail, 3rd Floor, Northern House, 9 Rougier Street, York, YO1 6HZ

Role in Organisation: Safety and Assurance Director

Introducing the regulations

1. How was your organisation affected by the Railway Safety Regulations 1999, and on which elements (e.g. TPWS, Mark 1 rolling stock) of them did you take action?

The former franchise of Arriva Trains Northern and First North Western both had to ensure fitment of TPWS on their fleets of vehicles. Both Train Operators occasionally hired in slam door stock and had to ensure these were fitted with central locking.

2. What were the main challenges your organisation faced in meeting the requirements of the Railway Safety Regulations?

Fitting TPWS to the entire fleets without unduly affecting Fleet availability. Design resources were challenged in meeting the timescales required to achieve programmed fitment and this precluded the opportunity to refine the design and test fully for reliability.

Outputs of the regulations

3. Do you think that the Regulations have achieved their purpose and intended effect, as described in paragraph 4 above?

Yes ☒

No ☐

If you have answered "No" above, in which respects and why not?

4. Do you think that the Regulations have achieved any other benefits?

Yes ☒

No ☐

If you have answered "Yes", please provide details

Withdrawal of MK1 coaches meant the introduction of newer, more modern trains with associated customer benefits.

5. Considering your organisation's costs, how do you think the costs involved compare to the benefits achieved?

Direct costs of fitment were borne by ROSCO's. The cost impact for TOC's was management time and loss of Fleet availability. From a TOC perspective, the reduction in risk benefit far out weighted the cost to TOC's.

6. Given that the Health and Safety Commission saw regulations as the only way of tackling these issues, do you believe the same benefits could have been achieved by a non-regulatory approach?

Yes ☐

No ☒

If you have answered "Yes" above, please explain why.

Whilst technically possible to complete the fitment and withdrawal programs without legislation, the use of legislation made the changes a mandatory modification which avoided any wrangling over who would bear the costs, which could otherwise have affected any timescales.

Future of the regulations

- 7 Is your organisation/industry experiencing difficulties with the Regulations in their present form?

Yes

No **X**

If you have answered "Yes", please explain why.

Not with the regulations but the rush to introduce TPWS has left a legacy of reliability problem and a design that is not optimised against the impact of manual override (TPWS reset and go)

8. Do you think these Regulations should be retained?

Yes **X**

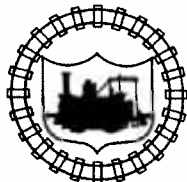
No

9. If they are retained, can you suggest any ways in which the regulations could be improved?

The regulations are presumably required to prevent persons operating non TPWS fitted trains or MK1 coaching stock in the future. This could be equally achieved through a Railway Group Standard.

10. If they are revoked, can you foresee any difficulties which would result?

The key requirements of the legislation need reflecting in Railway Group Standards and notified National Technical Rules in the future under ROGS to ensure the mandated requirements are perpetuated.



HERITAGE RAILWAY ASSOCIATION

President: Dame Margaret Weston DBE

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Please reply to :8, Ffordd Dyfrig, TYWYN, LL36 9EH
Tel: 01654 710344. Fax: 01654 712323. Email: hradw@globalnet.co.uk
HRA Website: www.heritagerailways.com

July 03 , 2007.

Mrs. Chandrika Shah,
Office of Rail Regulation,
One Kemble Street,
London. WC2B 4AN

Dear Mrs Shah,

Evaluation of Railway Safety Regulations, 1999.

We refer to the Consultation Paper dated May,2007 with thanks for the opportunity to comment.

Although these Regulations did not directly affect the operation of heritage railways we welcomed the exemption that allows for the continued charter/heritage operation of Mk 1 coaches. Notwithstanding the future of these Regulations we trust that these exemptions will continue in place.

As the implementation of these Regulations did not affect the majority of heritage railways we are not really in a position to respond by means of Annex A in great detail. We therefore trust that this letter will suffice as our response.

In the light of our general knowledge of railway operations our view is that these Regulations have achieved their aim and could well be revoked – provided that suitable arrangements are made for the existing exemption for charter / heritage operation of Mk 1 coaches remains in place.

Yours sincerely,

(D.Woodhouse, MBE, MIRO),
Managing Director.

REPRESENTING INDEPENDENT RAILWAYS AND PRESERVATION SOCIETIES

Annex A

Your views

Organisation: *West Coast Railway Company Limited*
Contact Details: *Malcolm Gelsthorpe, m.gelsthorpe@wrcr.co.uk*
Role in Organisation: *Quality & Systems Manager*

Introducing the regulations

1. How was your organisation affected by the Railway Safety Regulations 1999, and on which elements (e.g. TPWS, Mark 1 rolling stock) of them did you take action?

TPWS was fitted to all traction, including steam locomotives, operated by WCR.

Exemption gained from Regulation 4 to enable continued use of Mk1 coaching stock subject to the implementation of agreed controls and procedures to mitigate the risk.

Exemption gained from Regulation 5 to enable the fitting of manually operated secondary door locks on coaching stock subject to the implementation of agreed controls and procedures to mitigate the risk.

2. What were the main challenges your organisation faced in meeting the requirements of the Railway Safety Regulations?

Administrative: The legislation requires applications for exemptions to be made by the vehicle owners against specific vehicles by registered vehicle number, rather than by the train operator ('Transport Undertaking'). WCR operates vehicles from a wide range of owners, with the result that co-ordinating the applications was a significant task.

Outputs of the regulations

3. Do you think that the Regulations have achieved their purpose and intended effect, as described in paragraph 4 above?

Yes ☒

No ☐ ☐

If you have answered "No" above, in which respects and why not?

4. Do you think that the Regulations have achieved any other benefits?

Yes ☒

No ☐ ☐

If you have answered "Yes", please provide details

To be fair, the regulations gave rise to a significant improvement in the management of charter train Stewards¹, directly leading to the production of written guidance, briefing notes and control documentation. There was an all round improvement in the professionalism with which the staff approach the tasks in hand.

On train stewards procedures & instructions have since been subject to a number of reviews and further enhancements in light of experience after the initial implementation of measures required to comply with the Regulations.

5. Considering your organisation's costs, how do you think the costs involved compare to the benefits achieved?

Considered purely on a domestic WCR basis, for the period since 1999, it is difficult to identify any specific benefit in the areas directly addressed by the Regulations: WCR's risk profile and scale of operations has been such that the specific hazards the Regulations were directed at controlling were not experienced during this period. For example, WCR probably had no SPADs that would have been prevented by TPWS, was unlikely to have had any door incidents given the nature of its passenger profile, and was not involved in any collisions where the crashworthiness of Mk1 vehicles could have played a role.

Taking the wider view, it is likely that WCR will experience these hazards at some stage, and the benefits will then be apparent. In terms of cost-effectiveness, the cost of the TPWS fitment is widely accepted within the industry as exceeding the agreed value of preventing a fatality by a significant margin.

¹ Stewards work on-board the train but are distinct from the professional traincrew. Their role is to supervise the passengers, generally on behalf of the Tour Promoter, but their specific duties with regard to Secondary Door Locking required a more formal approach.

6. Given that the Health and Safety Commission saw regulations as the only way of tackling these issues, do you believe the same benefits could have been achieved by a non-regulatory approach?

Yes ☒

No ☐ ☐

If you have answered "Yes" above, please explain why.

Speaking purely on behalf of WCR, these benefits could probably have been achieved by other means, including internal rail industry measures such as properly formulated Railway Group Standards², or by a clear HMRI policy implemented via local discussions and agreements

Future of the regulations

- 7 Is your organisation/industry experiencing difficulties with the Regulations in their present form?

Yes ☒

No ☐ ☐

If you have answered "Yes", please explain why.

Fleet consists are continually changing in response to customer needs and maintenance requirements. Under the current regime a separate application is required for each 'new' vehicle that is to be operated, submitted by the vehicle owner. The risk control and mitigation solutions implemented, by national agreement, include an element of procedural control by the Transport Undertaking, so a purely vehicle-based exemption regime is misleading.

8. Do you think these Regulations should be retained?

Yes ☒

No ☐ ☐

9. If they are retained, can you suggest any ways in which the regulations could be improved?

² For which there are, perhaps, grounds for caution given the specialised nature of charter train operations.

Clearly, some statutory measure is required to maintain the mandating of TPWS, the exclusion of Mark I vehicles, and the requirements for central door locking (all subject to valid exemptions where appropriate). Vehicles not complying with the requirements still exist and could, otherwise, re-appear on the network.

It is suggested that the exemption process be developed to allow Transport Undertaking's to register their accepted safe operating arrangements for Mark I vehicles and non-Central Door Locking systems, so that it is no longer necessary to grant vehicle-specific exemptions. These arrangements would be embodied in the company's Safety Management System, as covered by the ROGS 2006 Regulations.

Shah, Chandrika

From: Burton David (SQE) [David.Burton@tube.tfl.gov.uk]
Sent: 11 July 2007 13:31
To: Shah, Chandrika
Cc: Howlett Simon; Downes John; Ross Paul (TfL Rail); Hopkins Amanda (LU); Behan Catherine; Collis Jill
Subject: LU Response to consultation on Railway Safety Regulations 1999

Chandrika

As requested:

Q1 - how organisation affected?

LUL fitted TPWS to the Wimbledon branch for the benefit of SWT train movements, in so far as LUL's rolling was concerned the implementation of the regulations had no affect as we already had the Trainstop/Tripcock system or ATP on the Victoria and Central Lines.

In respect of Central door locking, we had to fit a secondary locking system to our heritage carriages (4 in total) that are used in conjunction with our heritage Metropolitan locomotive - Sarah Siddons.

Exemptions have been required against regulation 3 for use of on track plant in possessions that is not fitted with compatible Train protection systems.

Q2 - Main challenges?

Actually getting TPWS fitted - had to contract Railtrack to do this.

Obtaining the initial exemptions from the regulation 3 for possessions.

Q3 - have the regulations achieved their purpose?

Yes

Q4 - have the regulations achieved any other benefits?

No

Q5 - How do costs compare to benefits?

Cost is disproportionate to benefit in LUL case, as we now have to spend time obtaining exemptions for using on track plant and equipment in possessions.

Q6 - Do you believe the same benefits could be achieved by a non-regulatory approach?

No - not on the main line.

LUL has always had a system of train protection.

Q7 - Is your organisation experiencing difficulty with the regulations in their present form?

Yes - in regard to the need for exemptions from reg 3 in possessions.

Q8 - should they be retained?

Yes

Q9 - ways to improve?

Remove the requirement for the need to have exemptions for possessions where it is known that the protection system may not be available because of replacement to track and signalling systems, and bring these regulations into line with ROGS, which does not apply for possessions, in respect of train/plant operators having to have safety certificates.

Q10 - if regulations revoked, do you see any difficulties?

Yes

New stock may not be fitted with protections systems unless mandated somewhere else. Any heritage or hinge door stock being operated at mainline speeds would not have to have it's secondary door locking system operable, again unless it was mandated elsewhere.

This could be moved into the ROGS regulations.

David Burton
General Manager, SQE Systems and Assurance
London Underground

020 7918 4147

Notice from London Underground Limited (LUL).

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From: chris.moss@hsbc.com
Sent: 13 July 2007 18:09
To: Shah, Chandrika
Subject: Railway Safety Regulations 1999 Consultation

Organisation: HSBC Rail UK Ltd

Contact Details: (optional) Mr Chris Moss

Role in Organisation Head of Engineering Services

Introducing the regulations

1. How was your organisation affected by the Railway Safety Regulations 1999, and on which elements (e.g. TPWS, Mark 1 rolling stock) of them did you take action?

Under the terms of the MOLA leases HSBC Rail were responsible for the installation of TPWS on a wide range of rolling stock. We lead cross Rosco efforts to develop and implement the "Cup and Cone" modification with our customers, the Train Operators, and assisted them in obtaining exemptions for continued operation of Mk1s once it had been demonstrated that Cup & Cone provided no net safety benefit.

2. What were the main challenges your organisation faced in meeting the requirements of the Railway Safety Regulations?

Some of the Mk1 regulations were based around a concept developed by Consultants who had no understanding of the Operational railway. A large effort had to be put into challenging and demonstrating that the assumptions were incorrect.

Outputs of the regulations

3. Do you think that the Regulations have achieved their purpose and intended effect, as described in paragraph 4 above?

Yes

I

If you have answered "No" above, in which respects and why not?

The Regulations achieved their purpose in that they resulted in the early replacement of Mk1 trains and a 90%+ reduction in SPAD risk.

4. Do you think that the Regulations have achieved any other benefits?

Yes

If you have answered "Yes", please provide details

The Regulations resulted in the introduction of many new trains, lowering the average age of rolling stock in the UK to the youngest in Europe, enhancing the travel experience of passengers and contributing to growth in rail travel, but at great cost to the Government.

5. Considering your organisation's costs, how do you think the costs involved compare to the benefits achieved?

The three Roscos spent more than £750k and 2 man-years of effort in demonstrating that Cup and Cone was a poorly developed concept that provided no net safety benefit and was not ALARP. This wasted time and effort could have been directed at other safety or performance issues.

TPWS has been effective at reducing SPAD risk.

Accelerating the installation of TPWS resulted in reliability issues with equipment that was not fully developed, sourced from a single supplier. The lack of time to develop a reliable system has contributed to TPWS being around 10% of the total in-service failures in most fleets.

6. Given that the Health and Safety Commission saw regulations as the only way of tackling these issues, do you believe the same benefits could have been achieved by a non-regulatory approach?

Yes

If you have answered "Yes" above, please explain why.

The RSR should have been unnecessary. The government could have mandated MkI replacement and TPWS installation as part of the franchising process. This would have resulted in an ordered, progressive replacement based upon ALARP principles without distorting the industries' supply market.

Mandatory prescriptive regulation containing end dates takes no account of the commercial and political realities of railway operation and should always be avoided, especially when based on ideas developed without adequate industry involvement.

Future of the regulations

- 7 Is your organisation/industry experiencing difficulties with the Regulations in their present form?

No

If you have answered "Yes", please explain why.

8. Do you think these Regulations should be retained?

No

9. If they are retained, can you suggest any ways in which the regulations could be improved?

There is no value in retaining the regulations. Any continued operation of the small number of slam door or MkI trains should be controlled via ROGS and Train Operator's SMS.

10. If they are revoked, can you foresee any difficulties which would result?

None

Chris Moss
Head of Engineering Services
HSBC Rail (UK) Ltd

Tel.: 020 7380 5243 (Internal 0645 5243)
Mobile: 07771 668125
Fax: 020 7380 5754 (Internal 0645 5754)
Email: chris.moss@hsbc.com

Transport for London



Your ref:
Our ref:

Mrs Chandrika Shah
Executive, Legislative Development
2nd Floor
Office of Rail Regulation
1 Kemble Street
London WC2B 4AN

Transport for London
London Rail

1 Butler Place
London SW1H 0PT

Phone 020 7222 5600
Fax 020 7126 1751
www.tfl.gov.uk

13 July 2007

Dear Mrs Shah,

EVALUATION OF THE RAILWAY SAFETY REGULATIONS 1999

Thank you for giving TfL the opportunity to comment on this consultation document. We do not believe that the Regulations have had a direct impact on rail services in London (other than as part of the overall National Rail network) except where London Underground has been affected. David Burton, General Manager, SQE Systems and Assurance at London Underground, responded to you separately on 11th July, setting out London Underground's position. Overall, TfL believes that the Regulations have achieved their purpose and that they should be retained.

A number of the questions raised in Annex A to the consultation document are not applicable to TfL but answers are provided to the remaining questions as follows:

Q3 – Have the Regulations achieved their purpose? Yes.

Q4 – Have the Regulations achieved any other benefit? Yes – they have led to the introduction of more modern rolling stock following the withdrawal of Mk1 stock.

Q6 – Do you believe the same benefits could have been achieved by a non-regulatory approach? Not in the case of the safety-related benefits but more modern rolling stock could have been introduced through the franchising process.

Q8 – Do you think these Regulations should be retained? Yes

Yours sincerely,

Richard Wallace
Head of Rail Industry Liaison
Email: richardwallace@tfl.gov.uk
Direct line: 020-7126 1687

Copy to: Paul Ross, File

Shah, Chandrika

From: Sarah Hancock [Sarah.Hancock@angeltrains.com]
Sent: 13 July 2007 15:45
To: Shah, Chandrika
Cc: Chris Wadey
Subject: ANGEL TRAINS RESPONSE TO THE RAILWAY SAFETY REGULATIONS 1999: ORR CONSULTATION
Attachments: 2007_07_13_15_41_25.pdf

Good afternoon,

Please find the above response attached from Chris Wadey of Angel Trains. The original shall follow shortly by post.

Kind regards,

Sarah Hancock

PA to Head of Safety & Head of Project Delivery
 Angel Trains Limited
 Portland House, Bressenden Place, London, SW1E 5BH

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Chandrika Shah
Office of Rail Regulation
1 Kemble Street
London
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13 July 2007

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Angel Trains Response to the Railway Safety Regulations 1999 : ORR Consultation.

Introducing the Regulations.

1. How was your organisation affected by the Railway Safety Regulations 1999, and on which elements (e.g. TPWS, Mark 1 Rolling Stock) of them did you take action?

In accordance with the regulations Angel Trains fitted TPWS equipment to approximately 1800 driving cabs between January 2001 and December 2003 at a cost of £15.7M. For the new builds being introduced the equipment was fitted by the manufacturers.

At the time the regulations were introduced Angel Trains owned approximately 3500 rail vehicles, 1300 of which were Mark 1 vehicles, (600 of which were not already scheduled for replacement by new vehicles), and a further 180 Mark 2 style multiple units with slam doors, (which were not already fitted with central door locking).

Work to develop practical modifications to improve the crashworthiness of the Mark 1 vehicles had previously been led by the HSE and various industry parties but ultimately could not provided a safer, cost effective alternative solution. (Under the regulations even modifying the vehicles only gave a maximum of 2 further years of service operation before mandatory withdrawal from service for any unrebodyed vehicles was required).

However, as a possible alternative, Angel Trains, in conjunction with Adtranz,(now Bombardier), funded and developed the 'Classic' concept vehicle, which was effectively a new vehicle body, incorporating power doors etc, mounted on a Mark 1 underframe and bogies. A similar exercise to 're-side' the Mark 2 type slam door class 312 vehicles (Phoenix project), incorporating power operated doors was also undertaken. The prototype 'Classis' vehicle was exhibited widely around the three southern TOCs and despite concerted efforts to market both the 'Classic' and 'Phoenix' concepts, the operators and the SRA opted for new vehicles.

Consequently between April 2001 and November 2005 the Angel Trains Mark 1 fleet was replaced with new vehicles. Also prematurely withdrawn were 180 Mark 2



bodied Class 312 vehicles which the operator also opted to replace with new vehicles.

2. What were the main challenges your organisation faced in meeting the requirements of the Railway Safety Regulations?

For the TPWS fitment programme the challenges surrounded the fact that there was only one supplier who could design, develop and manufacture a system to meet the requirements of the regulations and the tight timescales for fitment which had been imposed. The programme had to be fitted in around the operators to ensure that train service availability was not compromised.

The rushed nature of the procurement programme also meant that the wider industry was critical about the initial system performance because of the single supplier situation. This has taken a long time to forget.

With the crashworthiness modifications, the key issues were with the unacceptable additional operational risks that the proposed modifications introduced. These risks together with the short additional 'life' (2 years) that such modifications gave, could not be justified.

In Angels view, the option to rebody a Mark 1 vehicle presented a viable alternative but one which ultimately proved impossible to 'sell' to either the SRA or the TOCs. From a business perspective the consequential loss of lease revenue to Angel Trains from the mandatory withdrawal of the Mark 1 and the premature withdrawal of the Class 312 fleet, was significant. As it turned out delays by the operators and the SRA/DfT in agreeing the orders for new vehicles led to the need to seek exemptions to keep some mark 1 vehicles in service beyond the mandatory withdrawal date. The 'phase out' process in itself requiring careful control of the 'rundown' maintenance.

Also replacing such high volumes of trains in such a short time put "feast" pressure on the manufacturers and supply chain rather than a smooth replacement programme, which would have been much more beneficial. This will continue with maintenance, with a high volume of vehicles introduced together, needing heavy maintenance at the same time in the future.

Outputs of the Regulations

3. Do you think that the Regulations have achieved their purpose and intended effect, as described in paragraph 4 above?

Yes *

No

In terms of significantly reducing the collision risks from SPADS, TPWS has been an enormous success which in itself made the benefits of withdrawing the Mark 1 vehicles more difficult to justify on crashworthiness alone. This success has also made the case for full ERTMS fitment more difficult. The loss of the slam doors, has virtually eliminated the number of falls, usually fatal, from trains.

4. Do you think that the Regulations have achieved any other benefits

Yes *

No

Over and above the safety benefits of reducing the SPAD risk and the reduction in the falls from trains, the introduction of the new fleets of trains as replacements for the Mark 1 vehicles has resulted in reducing the average age of the stock in the UK to the lowest in Europe as well as bringing about improved levels of exterior and interior crashworthiness.

5. Considering your organisations costs, how do you think the costs involved compare to the benefits achieved?

Angel Trains costs in funding the TPWS vehicle fitment programme have been significant, while the prime beneficiaries have been the TOCs and Network Rail with reductions in damage repair costs and service disruptions. Such savings should also have brought about a reduction in insurance premiums to the operators, although whether this has happened yet is not clear..

6. Given that the Health and Safety Commission saw regulations as the only way of tackling these issues do you believe the same benefits could have been achieved by a non-regulatory approach.

Yes *

No

The industry, led by Railtrack had already been deeply involved in the development of TPWS and trials started in October 1997, immediately following the Southall accident and while there were some objections to the mandating of TPWS fitment at the time it is highly likely that a programme of fitment would have evolved anyway. However, the tight fitment timescales imposed by the regulations, and further reduced by the Deputy Prime Minister, following the Ladbroke Grove accident while providing a clear focus to completing fitment did mitigate against developing a wider supply base and further refining the system.

To a large degree completion of the TPWS fitment programme reduced significantly the collision risk following an SPAD and the crashworthiness issues surrounding the Mark 1 vehicles. Replacement of the Mark 1 fleets could have been achieved without regulation by the SRA requiring their phased replacement as part of the refranchising process. Replacement also has the effect of removing the requirement to fit secondary locking to the slam doors.

Fitment of secondary locking to the slam doors on the HST and Mark 3 fleets was previously achieved without the need for regulation and a similar approach could have been applied by those operators retaining Mark 1 vehicles for heritage operations.

Future of the Regulations

7. Is your organisation/industry experiencing difficulties with the Regulations in their present form?

Yes

No *

8. Do you think these Regulations should be retained?

Yes

No *

While the basic objectives of the regulations have clearly been met with the completion of the TPWS fitment programme and the withdrawal of the Mark 1 fleets (apart from heritage vehicles for which exemptions have been agreed) there is a need to consider how TPWS fitment is mandated for any new or recommissioned infrastructure/vehicles on the network. A similar situation exists for recommissioned Mark 1 vehicles in respect of crashworthiness requirements and the fitment of secondary door locking. While the requirement could well be covered by Network Rail or Railway Group Standards, RSPG may well be a more appropriate place.

Railway Safety Principles and Guidance

9. If they are retained can you suggest any ways in which the regulations could be improved?

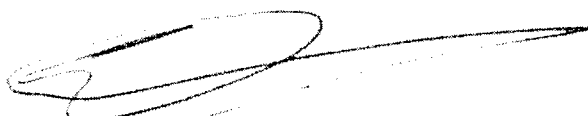
There have already been many exemptions agreed in relation to TPWS at speed restrictions and, for heritage operations, in relation to Mark 1 vehicles and hinged doors. If the regulations are to be retained they should be revised to take account of the time related actions which have already been taken since the regulations were introduced and the exemptions which have and continue to be approved.

10. If they are revoked, can you foresee any difficulties which would result?

See response to question 8.

If you need further clarification of any of these points, then please contact me.

Kind regards,



Chris Wadey
Safety Advisor
020 7592 0518

Shah, Chandrika

From: Dent Warrick [Warrick.Dent@networkrail.co.uk]

Sent: 16 July 2007 10:22

To: Shah, Chandrika

Subject: FW: EVALUATION OF THE RAILWAY SAFETY REGULATIONS 1999

Chandrika,

As requested please find below our principle evaluation of the Railway Safety Regulations 1999.

We have not attempted to respond to the very simplistic questions presented in your Annex A, but have described below our principle points.

Network Rail's view is that some form of regulations probably continue to be appropriate on account of the large number of exemptions granted, particularly in relation to Mark 1 stock, so there is a sub-statutory framework to facilitate the ongoing management and enforcement thereof. However, the substantive requirements of the Regulations should be radically amended so as not to be "unusually prescriptive" in relation to TPWS but rather require risk based fitment applying basic 1974 Act principles. Indeed, Network Rail has fitted TPWS at a number of plain line signals (such signals being wholly outside the scope of the 1999 Regulations) and has fitted TPWS+ having regard to its general duties under the 1974 Act, and the obligation placed on infrastructure controllers under regulation 5 of the Railway Safety (Miscellaneous Provisions) Regulations 1997 (ensure so far as reasonably practicable that equipment and procedures are in place for the purpose of preventing collisions between vehicles (etc)). The principle of fitting TPWS and variants where outside the scope of the 1999 Regulations but where reasonably practicable is therefore well established.

In relation to new or modified rolling stock, fitment is bound to be reasonably practicable, given that existing mainline stock is fitted and also the infrastructure. In relation to infrastructure, the onus would be on the infrastructure manager to demonstrate that existing fitments were not reasonably practicable, so it is unlikely that more than a few fitments would be removed by virtue of such change.

It is arguable that the duty in the 1997 Regulations in any event should suffice however this places a duty on infrastructure controllers and therefore is not compatible with the Safety Directive (nor ROGS). The 1999 Regulations themselves also place duties on infrastructure controllers which are similarly incompatible (ie the obligation not to "permit" in regulations 3, 4 and 5) and this is a further reason why they need radical revision.

In summary, the 1999 Regulations need overhauling (1) so that fitment is based on reasonable practicability and (2) so that they are compatible with the Safety Directive.

Warrick Dent

National Operations Delivery Manager

Network Rail

Annex A

Your views

Organisation:

THE SCOTTISH RAILWAY PRESERVATION SOCIETY

Contact Details: (optional)

STUART SELLAR, 10 MADDISTON ROAD, BRIGHTONS, FALKIRK FK2 0SP

Role in Organisation

DIRECTOR SRPS RAILTOURS

Introducing the regulations

1. How was your organisation affected by the Railway Safety Regulations 1999, and on which elements (e.g. TPWS, Mark 1 rolling stock) of them did you take action?

MARK 1 ROLLING STOCK

2. What were the main challenges your organisation faced in meeting the requirements of the Railway Safety Regulations?

HAVING TO EQUIP 13 MARK 1 COACHES WITH SECONDARY DOOR LOCKS
USING VOLUNTEER LABOUR

Outputs of the regulations

3. Do you think that the Regulations have achieved their purpose and intended effect, as described in paragraph 4 above?

Yes ☒

No ☐

If you have answered "No" above, in which respects and why not?

4. Do you think that the Regulations have achieved any other benefits?

Yes ☒

No ☐

If you have answered "Yes", please provide details

IT HAS INTRODUCED ^{THE} DISCIPLINE OF ENSURING THAT DOORS AT STATIONS
WITH SHORT PLATFORMS ARE LOCKED WHERE NECESSARY

5. Considering your organisation's costs, how do you think the costs involved compare to the benefits achieved?

MINIMAL BECAUSE VOLUNTEER LABOUR WAS INVOLVED IN FITTING THE LOCKS —
THE COST OF THE LOCKS WAS MINIMAL

6. Given that the Health and Safety Commission saw regulations as the only way of tackling these issues, do you believe the same benefits could have been achieved by a non-regulatory approach?

Yes ☒

No ☐

If you have answered "Yes" above, please explain why.

HERITAGE STOCK WAS A CONSEQUENCE OF THE H&I ACTION
AND NOT A DIRECT CAUSE

Future of the regulations

- 7 Is your organisation/industry experiencing difficulties with the Regulations in their present form?

Yes ☐

No ☒

If you have answered "Yes", please explain why.

8. Do you think these Regulations should be retained?

Yes ☒

No ☐

9. If they are retained, can you suggest any ways in which the regulations could be improved?

10. If they are revoked, can you foresee any difficulties which would result?

THE SOCIETY IS A REGISTERED CHARITY AND WITHDRAWAL OF THE
DEROGATION WOULD MEAN THAT THE SET OF COACHES WOULD NO LONGER
BE ALLOWED TO RUN ON NETWORK RAIL LINES THEREBY AFFECTING
INCOME SEVERELY