

Лашин Олександр Криворізький

АВАТІС

Охорона Праці

ESOSH OFFICE

Оксана Станіславчук

Valentyna.Zabelina

ОХОРОНА ПРАЦІ

Railway Safety in Great Britain

How Great Britain arrived at its current level of safety for passengers and the workforce.

16 & 23 May 2025 (online)

ABATIS Safety Services Ltd

Учасники (8)

Л

Лапшин Олександр Криворізький (Я)

🔊

📺

ОХОРОНА ПРАЦІ

Охорона Праці (Організатор)

🔊

📺

АВАТІС

АВАТІС (Соорганізатор)

🔊

📺

ОХОРОНА ПРАЦІ

Охорона Праці (Соорганізатор)

🔊

📺

Е

ESOSH OFFICE

🔊

📺

V

Valentyna.Zabelina

🔊

📺

Оксана Станіславчук

🔊

📺

О

Олег Кисловский

🔊

📺

Railway Safety in Great Britain

Keith Atkinson

Formerly His Majesty's Assistant Chief Inspector of Railways with HM Railway Inspectorate,



London Underground



London Overground



Docklands Light Railway

Railway Safety in Great Britain

Keith Atkinson

Formerly His Majesty's Assistant Chief Inspector of Railways with HM Railway Inspectorate,



London Underground



London Overground



Docklands Light Railway



Crossrail Project
(Elizabeth Line)



Glasgow SPT
Subway renewal



Heathrow
Airport



Gatwick
Airport



Stansted
Airport


zoom Workplace Конференция Экран (ABATIS) Вход Запись Звук оригинала для музыки

Идет запись этой конференции


Лашин Александр Кривошак ABATIS ESOSH OFFICE Охорона Праці Оксана Станіславчук Valentyna Zabelina

Railway Safety in Great Britain


Keith Atkinson
Formerly His Majesty's Assistant Chief Inspector of Railways with HM Railway Inspectorate,




London Underground




Crossrail Project (Elizabeth Line)




Heathrow Airport




London Overground




Gatwick Airport



Docklands Light Railway



Glasgow SPT Subway renewal



Stansted Airport

Goal-setting Principles for Railway Health and Safety : Additional factors to be considered for unattended passenger train operation (GOA4)
<https://www.orr.gov.uk/sites/default/files/2024-07/railway-safety-principles-factors-for-safe-operation-of-goa4-uto.pdf>

ABATIS Safety Services Ltd

Railway Safety in Great Britain

Keith Atkinson
Formerly His Majesty's Assistant Chief Inspector of Railways with HM Railway Inspectorate,



London Underground



Crossrail Project (Elizabeth Line)



Heathrow Airport



London Overground



Gatwick Airport



Docklands Light Railway



Glasgow SPT Subway renewal



Stansted Airport

Goal-setting Principles for Railway Health and Safety : Additional factors to be considered for unattended passenger train operation (GOA4)
<https://www.orr.gov.uk/sites/default/files/2024-07/railway-safety-principles-factors-for-safe-operation-of-goa4-uto.pdf>

ABATIS Safety Services Ltd

Railway Safety in Great Britain



Aim of the sessions

To share my 25 years experience as HM Inspector of Railways and examine how Great Britain went from having a railway with a poor safety record to being one of the safest railways in the world.

2 important points :

- I fully acknowledge the extremely difficult times Ukraine is currently experiencing:
- I will **not** be promoting the 'British way' as the 'best way', but I will try and show what has worked in GB (and in some cases what hasn't worked !);

Abatis Safety Services Ltd

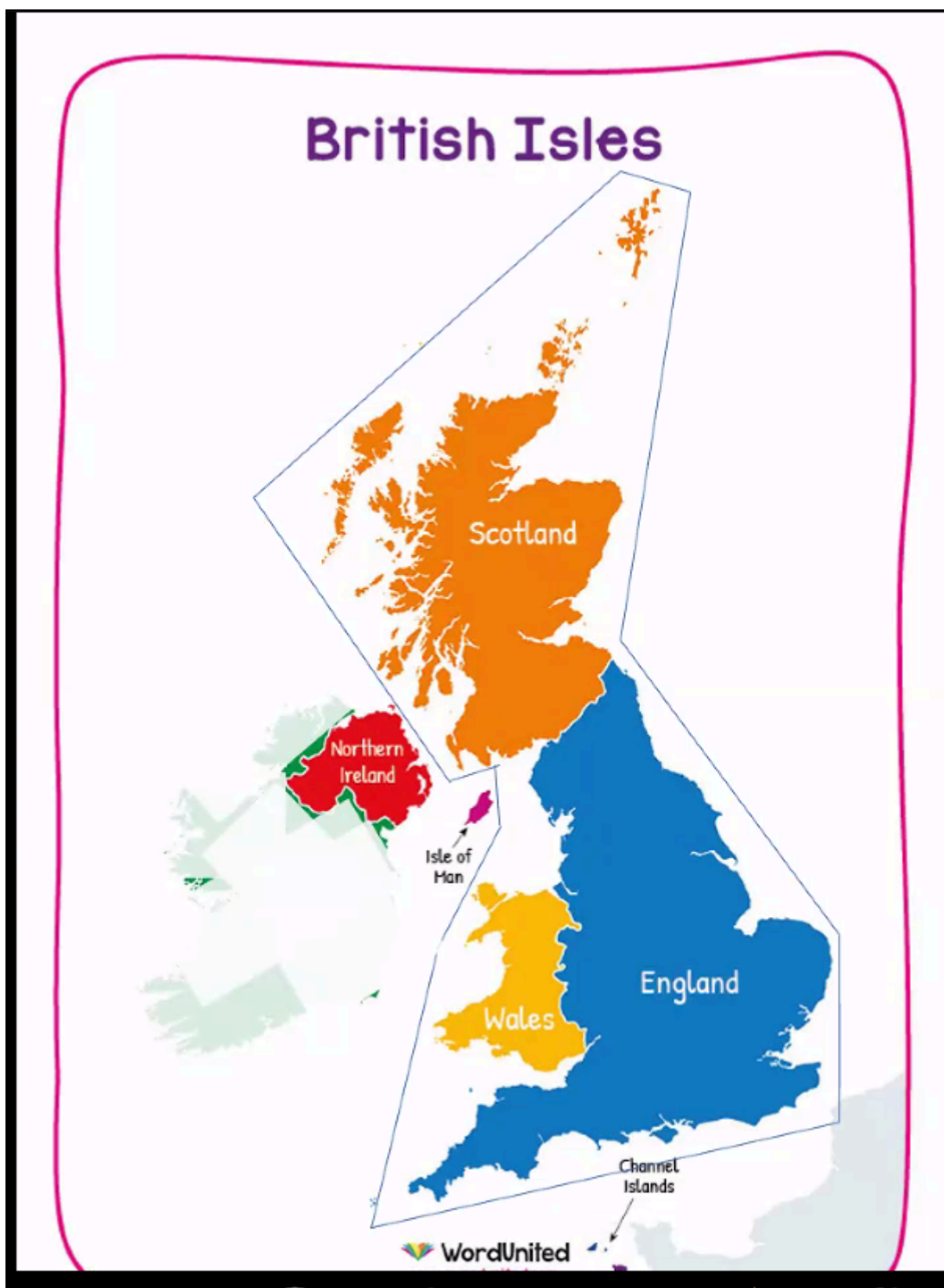
4

Мета занять

Поділитися своїм 25-річним досвідом роботи інспектором залізниць Її Величності та дослідити, як Велика Британія пройшла шлях від залізниці з поганим рівнем безпеки до однієї з найбезпечніших залізниць у світі.

2 важливі моменти:

- Я повністю усвідомлюю надзвичайно складні часи, які зараз переживає Україна:
- Я не буду просувати «британський шлях» як «найкращий шлях», але я спробую показати, що спрацювало у Великій Британії (а в деяких випадках і те, що не спрацювало!);



Британські острови

Railway Safety in Great Britain



ObjectivesWhat the sessions will cover :

This session

- A very brief history of Great Britain's railways.. (why the railway in GB is like it is)
- The role of accident investigation..... (the impact of accident investigation over 200 Years)
- The role of railway 'approvals' by government
- The introduction of the EU "Railway Safety Directive" and the EU "Interoperability directive":

Next session.....

- Great Britain's implementation of the EU 'Railway Safety Directive'
- The significance of the 'Safety Management System'
- Railway Safety Inspection (by the Office of Rail and Road)
- Railway Accident Investigation (by the Rail Accident Investigation Branch)

Abatis Safety Services Ltd

5

Railway Safety in Great Britain



ObjectivesWhat the sessions will cover :

This session

- A very brief history of Great Britain's railways.. (why the railway in GB is like it is)
- The role of accident investigation..... (the impact of accident investigation over 200 Years)
- The role of railway 'approvals' by government
- The introduction of the EU "Railway Safety Directive" and the EU "Interoperability directive":

Next session.....

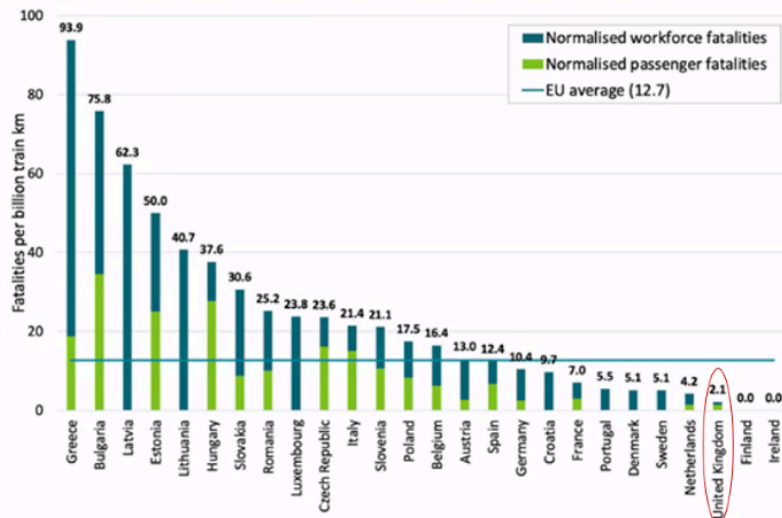
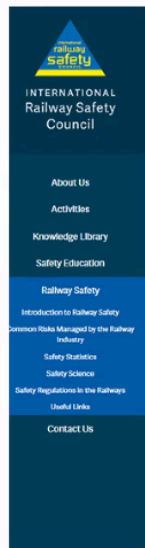
- Great Britain's implementation of the EU 'Railway Safety Directive'
- The significance of the 'Safety Management System'
- Railway Safety Inspection (by the Office of Rail and Road)
- Railway Accident Investigation (by the Rail Accident Investigation Branch)

Abatis Safety Services Ltd

5

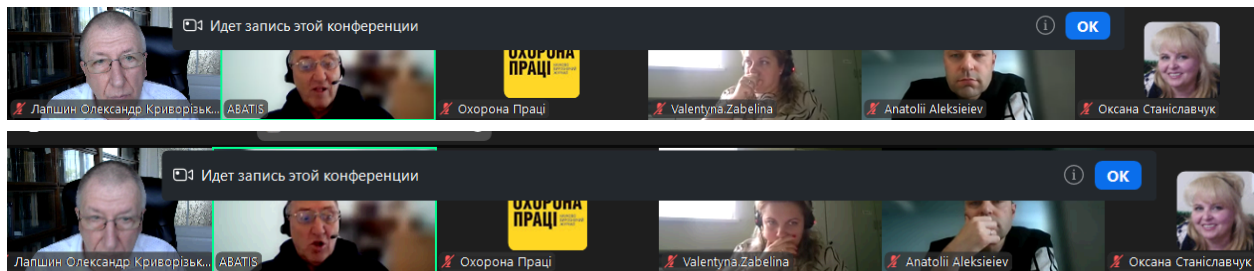
Railway Safety in Great Britain

Where does GB stand today in terms of railway safety today ?



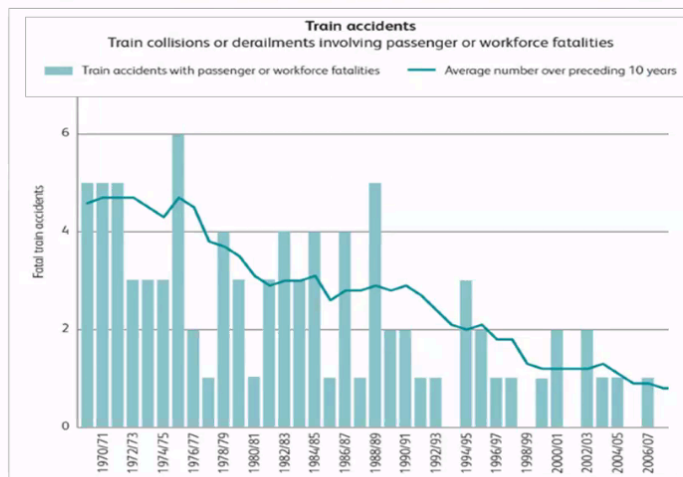
Comparison of Passenger and Workforce Fatality Rates Across Europe (Source ORR, 2013)

6



Railway Safety in Great Britain

It was not always such a positive picture



Global Railway REVIEW


































































GB Train accidents 1970 – 2007

Only 4 / 37 years when GB did not have a fatal train crash !!!

7

Учасники (23)



-  Лапшин Олександр Криво... (Я)  
-  Охорона П... (Організатор)   
-  ABATIS (Соорганізатор)   
-  Охорона... (Соорганізатор)   
-  Alan Plom  
-  Alona  
-  Anatolii Aleksieiev  
-  Dmytro  
-  Galyna Kryvenko  
-  Nataliia 
-  Oleksandr Kyrychok  
-  Valentyna.Zabelina  
-  Viktoriia  
-  Андрій Свиридко  
-  Євген  
-  Жуковський Андрій  
-  Оксана Станіславчук  
-  Олег Кисловский  
-  Олена  
-  Ольга Лаврентьева  
-  Світлана Колодезна  

ПригласитьВключить свой звук

Учасники (17)

Л

Лапшин Олександр Криворі... (Я)

ОХОРОНИ ПРАЦІ

Охорона Пр... (Організатор)

ABATIS (Соорганізатор)

ОХОРОНИ ПРАЦІ

Охорона ... (Соорганізатор)

Alan Plom

A

Alona

D

Dmytro

E

ESOSH OFFICE

Galyna Kryvenko

V

Valentyna.Zabelina

A

Андрій Свиридко

Є

Євген

Оксана Станіславчук

O

Олег Кисловский

O

Ольга Лаврентьева

Світлана Колодезна

Я

Ярош Юлія

Railway Safety in Great Britain



Keith Atkinson

Formerly His Majesty's Assistant Chief Inspector of Railways with HM Railway Inspectorate,



London Underground



Heathrow Airport



London Overground



Gatwick Airport



Docklands Light Railway



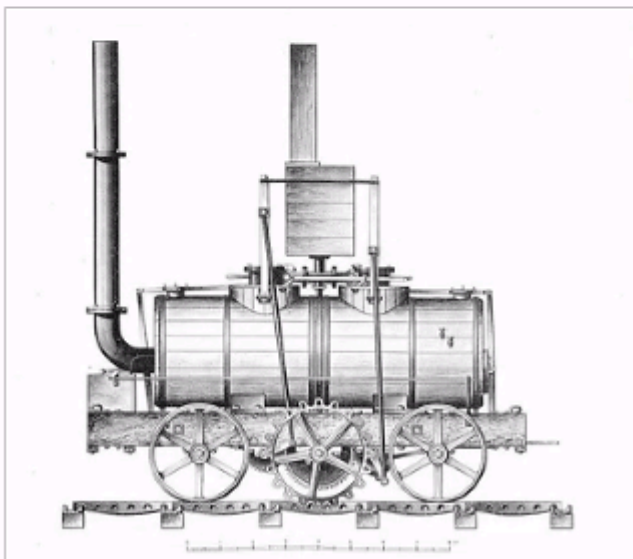
Stansted Airport

GB Train accidents
1970 – 2007

Only 4 / 37 years
when GB did not
have a fatal train
crash !!!

Railway Safety in Great Britain

The first commercially successful steam locomotive was *Salamanca* built in 1812 by John Blenkinsop and Matthew Murray for the 4 ft (1,219 mm) gauge Middleton Railway* in Leeds.



Abatis Safety Servic

Идет запись этой конференции

OK

ОХОРОНА ПРАЦІ

Охорона Праці

Valentyna Zabelina

Anatoli Aleksiev

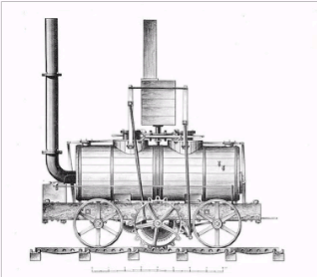
Оксана Станіславчук

Рейх Олександр Кривонозко

ABATIS

Railway Safety in Great Britain

The first commercially successful steam locomotive was *Salamanca* built in 1812 by John Blenkinsop and Matthew Murray for the 4 ft (1,219 mm) gauge Middleton Railway* in Leeds.



Abatis Safety Services Ltd

Рейх Олександр Кривонозко

ABATIS

Railway Safety in Great Britain

The first commercially successful steam locomotive was *Salamanca* built in 1812 by John Blenkinsop and Matthew Murray for the 4 ft (1,219 mm) gauge Middleton Railway* in Leeds.




*** Still operating as a heritage railway**

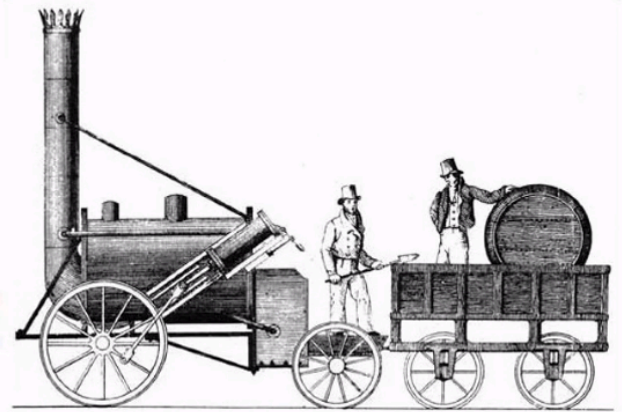
Abatis Safety Services Ltd

Railway Safety in Great Britain

In 1829 Stephenson's Rocket won,
the Rainhill Trials held by the
Liverpool & Manchester Railway.

15 September 1830 the first
commercial passenger service
commenced between the GB cities
of Liverpool and Manchester.

Today (2025) trains still run on the same track route that was laid down in
1829-1830.

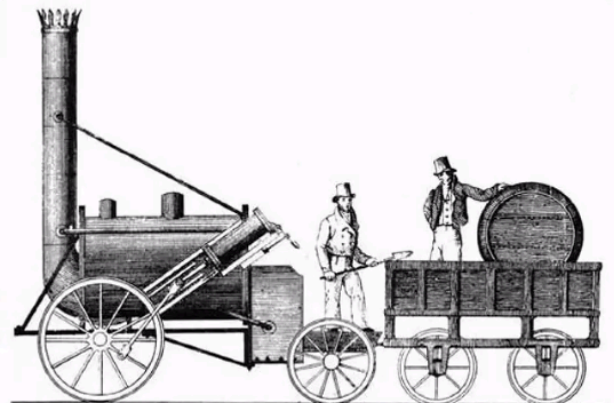


Railway Safety in Great Britain

In 1829 Stephenson's Rocket won,
the Rainhill Trials held by the
Liverpool & Manchester Railway.

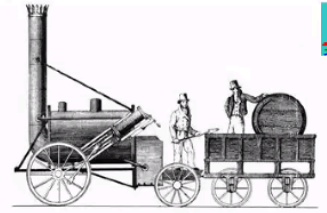
15 September 1830 the first
commercial passenger service
commenced between the GB cities
of Liverpool and Manchester.

Today (2025) trains still run on the same track route that was laid down in
1829-1830.



Railway Safety in Great Britain

Today (2025) train still run on the same track route that was laid down in 1829-1830.



The track runs across 'Chat Moss' and today still floats on the wooden & stone hurdles laid down in 1829/30.

It supports engines 25 times the weight of the steam-driven Rocket, the first train over the Moss in January 1830.

N.B. Great Britain's railway routes are old

.....very old !



Abatis Safety Services Ltd

10

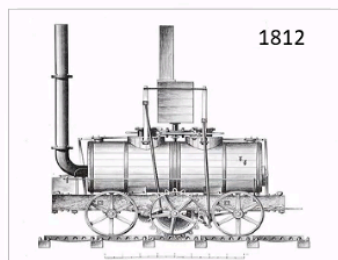






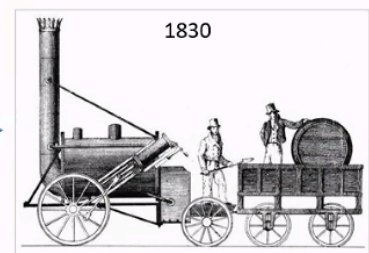
Railway Safety in Great Britain

ADATIS Safety
Services Ltd



1812

18 years



1830

Идет запись этой конференции

ОХОРОНА ПРАЦІ

Anatolii Aleksieiev

Оксана Станіславчук

Олег Кислюк

Railway Safety in Great Britain

1812

18 years

1830

Конференция

Экран (ABATIS)

Идет запись этой конференции

ОХОРОНА ПРАЦІ

Anatolii Aleksieiev

Оксана Станіславчук

Олег Кислюк

Railway Safety in Great Britain

1812

18 years

1830

1973 – the Wang 2200

18 years

1990 Apple Powerbook laptop

Идет запись этой конференции
OK
0

Олександр Криворізький
ABATIS
Охорона Праці
Anatolii Aleksieiev
Оксана Станіславчук
Олег Кисловский

Railway Safety in Great Britain

Growth of railways
1825
1835
1840
1845
1848
1855

1835

Approx 500Km of track

The most significant newcomer is the Liverpool and Manchester Railway, opened in 1830. The appearance of this map is deceptive, for following the Liverpool and Manchester Railway's success many more lines are planned, or under construction but unfinished.

Time Line 1778 - 1855

1778 1825 1835 1840 1845 1848 1855

12

Railway Safety in Great Britain

Growth of railways
1825
1835
1840
1845
1848
1855

1855 the GB train network as we recognise it today is established

Approx 13,350 Km of track

The results of the 'railway mania' are seen with the completion of many new competing routes. One of these is the east coast route to Scotland. Much of the enduring railway system in England and Wales is now in place.



































































Time Line 1778 - 1855

1778 1825 1835 1840 1845 1848 1855

13

Учасники (25)



-  Л Лапшин Олександр Криво... (Я)  
-  Охорона П... (Організатор)   
-  АВАТІS (Коорганізатор)    
-  Охорона... (Коорганізатор)   
-  Alan Plom  
-  Alona  
-  AA Anatolii Aleksieiev  
-  D Dmytro  
-  N Nataliia 
-  OK Oleksandr Kyrychok  
-  OL Olha Leshok  
-  P pavlovych.mp  
-  TO Tereshchuk Oleksandra  
-  V Viktoriia  
-  A Андрій Свирідко  
-  Є Євген  
-  Ж Жуковський Андрій  
-  Оксана Станіславчук  
-  O Олег Кисловский  
-  O Олена  
-  O Ольга Лаврентьева  



14:24

16.05.2025



Railway Safety in Great Britain



13

Railway Safety in Great Britain

The railway built between 1835 & 1855 was built by 'Navvies' (originally 'Navigators' – they dug canals).

A skilled navvy was expected to move ~20 tonnes of earth per day, using a pick and shovel to fill wagons.

This is equivalent to digging a trench 1m Wide x 1m deep, and 12m longevery working day. !!!!!!!

No 'Health & safety' existed !



1

Идет запись этой конференции

OK

0

Лашин Александр Кривоорык...

ABATIS

Охорона Праці

Anatoli Aleksiev

Оксана Станіславчук

Олег Кисловский


Railway Safety in Great Britain

The railway built between 1835 & 1855 was built by 'Navvies' (originally 'Navigators' – they dug canals).

A skilled navvy was expected to move ~20 tonnes of earth per day, using a pick and shovel to fill wagons.

This is equivalent to digging a trench 1m Wide x 1m deep, and 12m longevery working day. !!!!!!!

No 'Health & safety' existed !



ABATIS Safety Services Ltd

14


Railway Safety in Great Britain

The railway built between 1835 & 1855 was built by 'Navvies' (originally 'Navigators' – they dug canals).

A skilled navvy was expected to move ~20 tonnes of earth per day, using a pick and shovel to fill wagons.

This is equivalent to digging a trench 1m Wide x 1m deep, and 12m longevery working day. !!!!!!!

No 'Health & safety' existed !



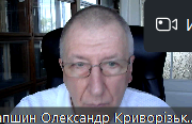
ABATIS Safety Services Ltd

14

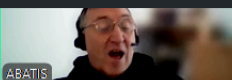
N.B. Part of their pay was in beer

- a. to replace lost liquid sweated by digging !
- b. it was safer to drink than the local water !

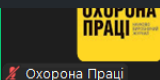
Идет запись этой конференции
OK



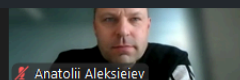
Лашин Олександр Криворізький



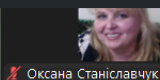
ABATIS



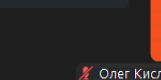
Охорона Праці



Anatolii Aleksieiev



Оксана Станіславчук



Олег Кислицкий

Railway Safety in Great Britain

How GB railway safety improvements have been driven over the last 200 years


The railway industry has largely 'learned' how to be safer on the back of accidents !

The **opening of the Liverpool and Manchester Railway** took place on 15 September 1830.

At the opening event William Huskisson MP, fell onto the tracks and the *Rocket*, ran over him causing serious leg injuries. He died that night.

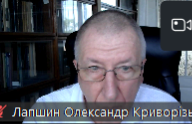
An accident enquiry was held to determine what happened and what could be done to stop it happening again.

Inquiries & Investigations into railway accidents have continued ever since !




Abatis Safety Services Ltd
15

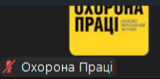
Идет запись этой конференции
OK




Лашин Олександр Криворізький



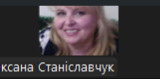
ABATIS



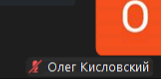
Охорона Праці



Anatolii Aleksieiev



Оксана Станіславчук

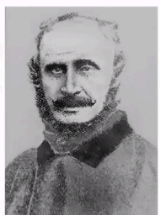


Олег Кислицкий

Railway Safety in Great Britain


Late 1830's - The govt of the day recognised the railways boom and that dangerous railway infrastructure and rolling stock were being created.

1840 Railway Regulation Act established "Inspecting Officers of Railways" initially to look into railway accidents.



Lt. Col. (Later Gen) Sir J M
Frederick Smith FRS
Inspector of Railways 1840

1st Chief Inspector of Railways



"Get the basics right. Get it right first time. Every time."

OFFICE OF
RAIL AND ROAD
NEW CHIEF INSPECTOR
RICHARD HINES

Richard Hines

26th Chief Inspector of Railways

Abatis Safety Services Ltd
16

Railway Safety in Great Britain



Definitive railway accidents that were investigated and led to changes :

Идет запись этой конференции

Олег Кисловский

Оксана Станіславчук

Anatolii Aleksiev

Охорона Праці

ABATIS

Пішин Олександр Криворізьк...

Railway Safety in Great Britain

Definitive railway accidents that were investigated and led to changes :

- The **Armagh** disaster - 12 June 1889.....**80** deaths
(need for Block signalling & continuous and automatic brake)

Конференция

Экран (ABATIS)

Идет запись этой конференции

Олег Кисловский

Оксана Станіславчук

Anatolii Aleksiev

Охорона Праці

ABATIS

Пішин Олександр Криворізьк...

Railway Safety in Great Britain

Definitive railway accidents that were investigated and led to changes :

- The **Armagh** disaster - 12 June 1889.....**80** deaths
(need for Block signalling & continuous and automatic brake)
- The **Quntinshill** disaster - 2 May 1915.....**226** deaths
(need for Track Circuits)

Залізничні аварії, які були розслідувані, та які призвели до змін
Катастрофа в Арма - 12 червня 1889 року - 80 загиблих

Railway Safety in Great Britain



Definitive railway accidents that were investigated and led to changes :

- The **Armagh** disaster - 12 June 1889.....**80** deaths
(need for Block signalling & continuous and automatic brake)
- The **Quntinshill** disaster - 2 May 1915.....**226** deaths
(need for Track Circuits)
- The **Harrow & Wealdstone** disaster - 8 October 1952.....**112** deaths
(need for AWS – Automatic Warning System to warn drivers passing signals at red)



Конференция

Экран (ABATIS)

Идет запись этой конференции

OK

0

Лапшин Олександр Криворізьк...

ABATIS

Охорона Праці

Anatoli Aleksiev

Оксана Станіславчук

Олег Кисловский

Railway Safety in Great Britain

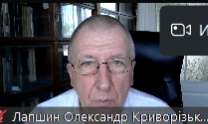
ABATIS Safety Services Ltd

Definitive railway accidents that were investigated and led to changes :


- The **Armagh** disaster - 12 June 1889.....**80** deaths
(need for Block signalling & continuous and automatic brake)
- The **Quntinshill** disaster - 2 May 1915.....**226** deaths
(need for Track Circuits)
- The **Harrow & Wealdstone** disaster - 8 October 1952.....**112** deaths
(need for AWS – Automatic Warning System to warn drivers passing signals at red)
- The **Clapham** train crash - 12 December 1988.....**35** deaths
(need for limits on hours of work to control fatigue of safety critical workers)

17

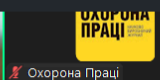
Идет запись этой конференции
OK



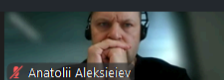
Лапшин Александр Криворізький



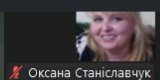
ABATIS



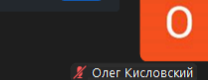
Охорона Праці



Anatolii Aleksieiev



Оксана Станіславчук



Олег Кисловский

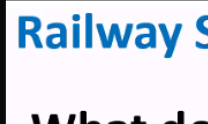
Railway Safety in Great Britain

Definitive railway accidents that were investigated and led to changes :

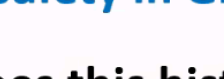
- The **Armagh** disaster - 12 June 1889.....**80** deaths
(need for Block signalling & continuous and automatic brake)
- The **Quntinshill** disaster - 2 May 1915.....**226** deaths
(need for Track Circuits)
- The **Harrow & Wealdstone** disaster - 8 October 1952.....**112** deaths
(need for AWS – Automatic Warning System to warn drivers passing signals at red)
- The **Clapham** train crash - 12 December 1988.....**35** deaths
(need for limits on hours of work to control fatigue of safety critical workers)
- The **Ladbroke Grove** train crash - 5 October 1999.....**31** deaths
(the need for automatic train protection systems)

Abatis Safety Services Ltd
17


Идет запись этой конференции
OK




Лапшин Александр Криворізький




ABATIS




Охорона Праці



Anatolii Aleksieiev



Оксана Станіславчук



Олег Кисловский

Railway Safety in Great Britain

What does this history tell us ?

The railway industry learns by its accidents
often reluctantly.

The **Quntinshill** disaster - 2 May 1915

- Replace gas lighting with electrical lighting
- By 1939 (25yrs !) – only ~ 50% of carriages had electrical lighting

Abatis Safety Services Ltd
18

Railway Safety in Great Britain

Lesson from The Ladbroke Grove train crash 1999

Pt 2 – Recommendations

Accident Investigation

59. The more serious cases should be the subject of inquiry by the RAIB (Rail Accident Investigation Branch)*.

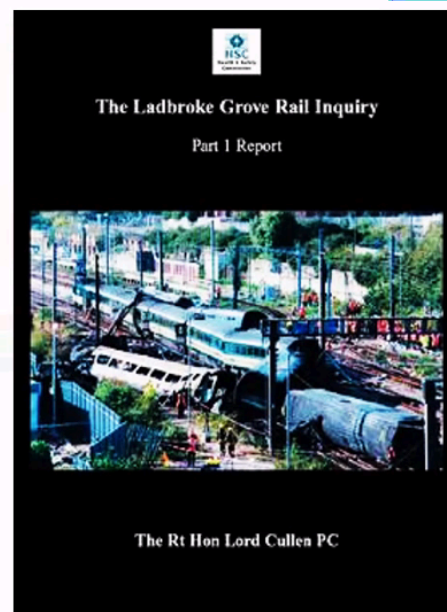
60. The less serious cases should be delegated to the industry to be dealt with by formal inquiry or formal investigation.

61. Consideration should be given, in the longer term, to reducing the investigation of accidents or incidents at industry level to a single method (para 11.9).

62. The sole objective of the investigation of accidents or incidents should be the prevention of accidents and incidents. It should not be the purpose of such investigations to apportion blame or liability.

* An INDEPENDENT branch of the Department For Transport

Abatis Safety Services Ltd



19

Идет запись этой конференции

Лашин Олександр Криворізьк... ABATIS Охорона Праці Anatolii Aleksieiev Оксана Станіславчук Олег Кисловский

Railway Safety in Great Britain

Lesson from The Ladbroke Grove train crash 1999

Pt 2 – Recommendations

Accident Investigation

59. The more serious cases should be the subject of inquiry by the RAIB (Rail Accident Investigation Branch)*.

60. The less serious cases should be delegated to the industry to be dealt with by formal inquiry or formal investigation.

61. Consideration should be given, in the longer term, to reducing the investigation of accidents or incidents at industry level to a single method (para 11.9).

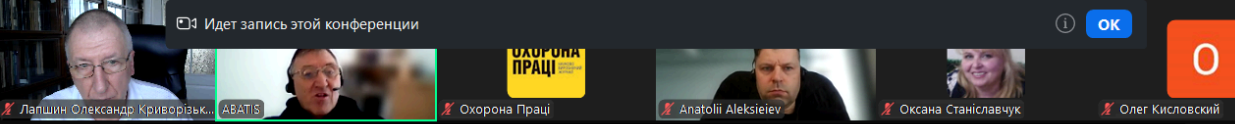
62. The sole objective of the investigation of accidents or incidents should be the prevention of accidents and incidents. It should not be the purpose of such investigations to apportion blame or liability.

* An INDEPENDENT branch of the Department For Transport

Abatis Safety Services Ltd

The image shows the front cover of a report titled 'The Ladbroke Grove Rail Inquiry Part 1 Report' by 'The Rt Hon Lord Cullen PC'. At the top left is the RSC (Rail Safety Council) logo. The central part of the cover has a photograph of the Ladbroke Grove train crash site, showing a derailed train and emergency services. The title and author's name are printed in white text on a dark background.

19




Идет запись этой конференции
OK

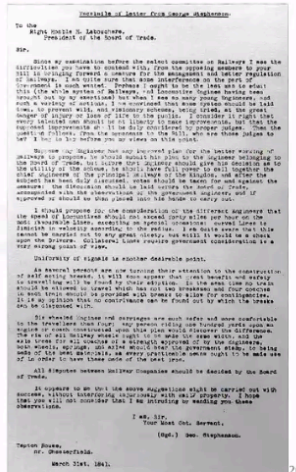
Railway Safety in Great Britain

Govt 'Approvals' & development of GB railways

Stephenson's letter of 1841

- I'm the top railway engineer and builder
- Building railway properly costs money
- Some people are now building unsafe railways
- If we don't act we will have serious accidents.....and
- People will lose confidence and won't use railways to travel
- The Govt must get good engineers together to :-
 - set standards and
 - 'approve' good railways (& rolling stock) that meet those standards



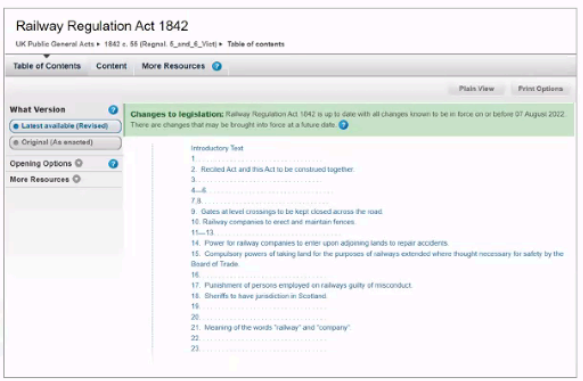


ABATIS Safety Services Ltd

Railway Safety in Great Britain

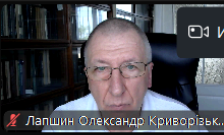
Railway Regulation Act 1842

- 2 years after Inspecting Officers of Railways were introduced (1 yr. after Stephenson's letter)
Inspectors were given authority to postpone the opening of a new railway if such opening ...
'would be attended with dangers to the public using the same'
- Approval of railways, trains and rolling stock in GB continued until 2008 (**167 yrs**) until implementation of the EU railway related directives

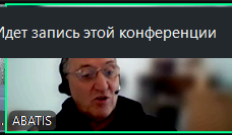


ABATIS Safety Services Ltd

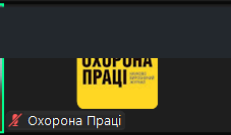
Идет запись этой конференции
OK



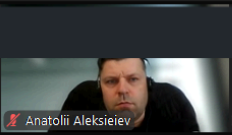
Лашпін Олександр Криворізький



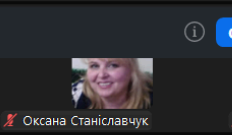
ABATIS



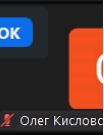
Охорона Праці



Anatoli Aleksieiev



Оксана Станіславчук

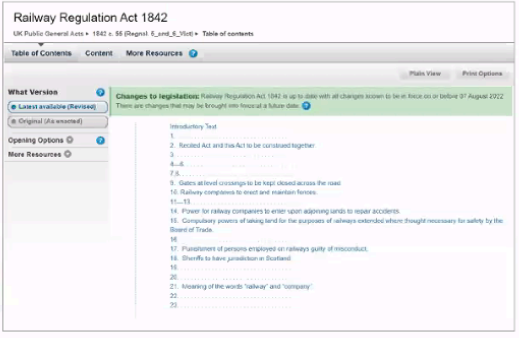



Олег Кисловский

Railway Safety in Great Britain

Railway Regulation Act 1842

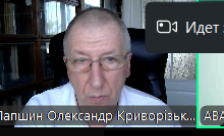
- 2 years after Inspecting Officers of Railways were introduced (1 yr. after Stephenson's letter) Inspectors were given authority to postpone the opening of a new railway if such opening ...
'would be attended with dangers to the public using the same'
- Approval of railways, trains and rolling stock in GB continued until 2008 (**167 yrs**) until implementation of the EU railway related directives



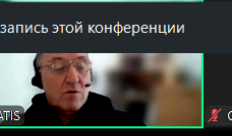


21

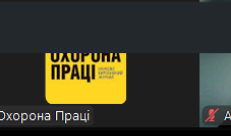
Идет запись этой конференции
OK



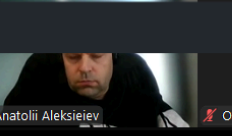
Лашпін Олександр Криворізький



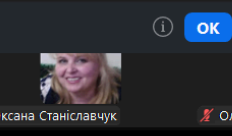
ABATIS



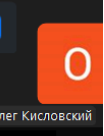
Охорона Праці



Anatoli Aleksieiev



Оксана Станіславчук



Олег Кисловский

Railway Safety in Great Britain

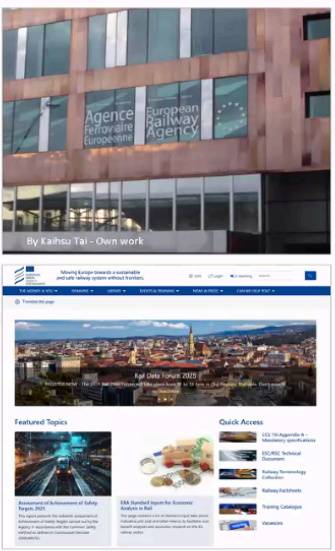
The European Dimension


Key railway related directives:-

- EU Railway safety directive (2004)
- EU Interoperability directive (2008)

The Railway safety directive(s) Included setting up of the **European Union Agency for Railways (ERA)** to :

- set common safety targets, common safety methods and common safety indicators as required by the Railway Safety Directive
- host a number of databases, among which a register of remaining, applicable national rules.
- Development and implementation of the European Rail Traffic Management System (ERTMS).





22

Идет запись этой конференции

OK

0

Лапшин Олександр Криворізьк...

АВАТІС

Охорона Праці

Anatoli Aleksiev

Оксана Станіславчук

Олег Кисловский

Railway Safety in Great Britain

EU Interoperability directive (2008)


































































- Post UK Brexit; GB modified its interoperability but continues to adopt the EU approach ;
e.g. *'Technical Specifications for Interoperability'* are *'National Technical Specification Notices (NTSNs)'* in the UK.
- The underlying principles are the same**
 - There is a national 'Competent Authority' (CA)in GB it is the Office of Rail and Road (ORR)
 - Railway subsystems must be 'authorised' by the CA before being introduced
- Approval mechanisms are somewhat different to historic UK ones BUT GB continues to ensure that Govt has final oversight to ensure only railway infrastructure and railway trains & rolling stock built to accepted national standards are allowed to be part of the GB mainline railway.

Latest version :
[DIRECTIVE \(EU\) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability of the rail system within the European Union \(recast\)](#)

АВАТІС Safety Services Ltd 23

Учасники (29)



-  Лапшин Олександр Криво... (Я)  
-  Охорона П... (Організатор)   
-  ABATIS (Соорганізатор)   
-  Охорона... (Соорганізатор)   
-  Alan Plom  
-  Alona  
-  Dmytro  
-  ESOSH OFFICE  
-  Galyna Kryvenko  
-  Nataliia 
-  Nataly Sazonova  
-  Oleksandr Kyrychok  
-  Olha Leshok  
-  pavlovych.mp  
-  Tereshchuk Oleksandra  
-  Valentyna.Zabelina  
-  Viktoriia  
-  Yuriy Ruduk  
-  Андрій Свиридко  
-  Євген  
-  Жуковський Андрій  

Railway Safety in Great Britain



EU Interoperability directive (2008)

- Post UK Brexit; GB modified its interoperability but continues to adopt the EU approach ;
e.g. 'Technical Specifications for Interoperability' are 'National Technical Specification Notices (NTSNs)' in the UK.
- **The underlying principles are the same**
 - There is a national 'Competent Authority' (CA)in GB it is the Office of Rail and Road (ORR)
 - Railway subsystems must be 'authorised' by the CA before being introduced
- Approval mechanisms are somewhat different to historic UK ones BUT GB continues to ensure that Govt has final oversight to ensure only railway infrastructure and railway trains & rolling stock built to accepted national standards are allowed to be part of the GB mainline railway.

Latest version :

[DIRECTIVE \(EU\) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability of the rail system within the European Union \(recast\)](#)

Abatis Safety Services Ltd

23

Railway Safety in Great Britain



EU Interoperability directive (2008) : since Brexit in the UK this is called

The Railways (Interoperability) Regulations 2011 (Updated July 2020)

Primary Interoperability duties placed on **ORR** (the GB National Safety Authority) are:

1. Authorisation to **Place Into Service** (APIS) of new; major upgraded & major renewed subsystems & vehicles,
2. Monitoring authorized subsystems and vehicles,
3. Enforce the regulations.

Latest version of the directive :

[DIRECTIVE \(EU\) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability of the rail system within the European Union \(recast\)](#)

Abatis Safety Services Ltd

24

Идет запись этой конференции

Лашин Александр Криворыжк... АВАТІS Охорона Праці Оксана Станіславчук Олег Кисловский Охорона Праці

Railway Safety in Great Britain

ABATIS Safety Services Ltd

EU Interoperability directive (2008) : since Brexit in the UK this is called

The Railways (Interoperability) Regulations 2011 (Updated July 2020)

Primary Interoperability duties placed on **ORR** (the GB National Safety Authority) are:

1. Authorisation to Place Into Service (APIS) of new; major upgraded & major renewed subsystems & vehicles,
2. Monitoring authorized subsystems and vehicles,
3. Enforce the regulations.

Latest version of the directive :
[DIRECTIVE \(EU\) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability of the rail system within the European Union \(recast\)](#)

ABATIS Safety Services Ltd 24

Идет запись этой конференции

Лашин Александр Криворыжк... АВАТІS Охорона Праці Оксана Станіславчук Олег Кисловский Охорона Праці

Railway Safety in Great Britain

ABATIS Safety Services Ltd

EU Interoperability directive (2008) : since Brexit in the UK this is called

The Railways (Interoperability) Regulations 2011 (Updated July 2020)

Primary Interoperability duties placed on **ORR** (the GB National Safety Authority) are:

1. Authorisation to Place Into Service (APIS) of new; major upgraded & major renewed subsystems & vehicles,
2. Monitoring authorized subsystems and vehicles,
3. Enforce the regulations.

Latest version of the directive :
[DIRECTIVE \(EU\) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability of the rail system within the European Union \(recast\)](#)

ABATIS Safety Services Ltd 24

Идет запись этой конференции

Лашин Олександр Криворівк... ABATIS Охорона Праці Оксана Станіславчук Олег Кисловський Охорона Праці

Railway Safety in Great Britain

ADATS Safety Services Ltd

EU Interoperability directive (2008)

The Railways (Interoperability) Regulations 2011 (Updated July 2020)

- APIS is a demonstration of conformity to requirements (in the UK) with **National technical specification notices (NTSNs)** (the EU term is TSI's - **Technical Specifications for Interoperability**) and national rules. This includes essential requirements of safety and technical compatibility with a generic infrastructure design for new or upgraded vehicles.
- A Project (e.g. introduction of a new train) must apply to ORR for APIS.
- To do this the project engages a recognised Assessment Body (AsBo) *.
- The AsBo applies the Common Safety Method for Risk Evaluation and Assessment (CSM REA) to demonstrate safe integration at the point of application for APIS.

Latest version of the Directive :
[DIRECTIVE \(EU\) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability](#)

Recognised UK AsBo's

- <https://assets.publishing.service.gov.uk/media/60f5816dd3bf7f568ffe87cb/approved-bodies-and-designated-bodies-doing-work-in-the-uk.csv/preview>

25

Идет запись этой конференции

Лашин Олександр Криворівк... ABATIS Охорона Праці Оксана Станіславчук Олег Кисловський Охорона Праці

Railway Safety in Great Britain

ADATS Safety Services Ltd

The impact of the EU "Railway Safety Directive" :

Original :
[DIRECTIVE 2004/49/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on safety on the Community's railways.](#) (The Railway Safety Directive)



Latest version:
[DIRECTIVE \(EU\) 2016/798 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on railway safety \(recast\)](#)

One of the key requirements of the Railway Safety Directive was

"the establishment, for each Member State, of a national safety authority and an accident and incident investigating body"

In GB.....

- The **national safety authority** is the Office of Rail and Road (ORR)
<https://www.orr.gov.uk/>
- The **accident and incident investigating body** is the Rail Accident Investigation Branch (RAIB)
<https://www.gov.uk/government/organisations/rail-accident-investigation-branch>

ADATS Safety Services Ltd

26

Вплив Директиви ЄС про безпеку залізничного транспорту

Vplyv Dyrektyvy YES pro bezpeku zaliznychnoho transportu

Идет запись этой конференции

Лашин Олександр Криворівський ABATIS Охорона Праці Оксана Станіславчук Олег Кисловський Охорона Праці

Railway Safety in Great Britain

.....but where are we today ?

Train accidents
Train collisions or derailments involving passenger or workforce fatalities

Legend: Train accidents with passenger or workforce fatalities (bars), Average number over preceding 10 years (line)

Global Railway REVIEW

Train accidents 1970 – 2019

Find out Next time

Year	Fatal train accidents
1970/71	5
1971/72	5
1972/73	3
1973/74	3
1974/75	3
1975/76	3
1976/77	6
1977/78	2
1978/79	4
1979/80	3
1980/81	1
1981/82	4
1982/83	4
1983/84	4
1984/85	1
1985/86	4
1986/87	1
1987/88	4
1988/89	5
1989/90	2
1990/91	2
1991/92	1
1992/93	1
1993/94	3
1994/95	2
1995/96	1
1996/97	1
1997/98	1
1998/99	2
1999/00	1
2000/01	2
2001/02	2
2002/03	1
2003/04	1
2004/05	1
2005/06	1
2006/07	1
2007/08	1
2008/09	1
2009/10	1
2010/11	1
2011/12	1
2012/13	1
2013/14	1
2014/15	1
2015/16	1
2016/17	1
2017/18	1
2018/19	1

Abatis Safety Services Ltd

28

Идет запись этой конференции

Лапшин Александр Криворыжк... ABATIS Охорона Праці Оксана Станіславчук Олег Кисловский Охорона Праці

Railway Safety in Great Britain

NEXT TIME23 May 2025

- The requirements of the Railway Safety Directive
- Its implementation in GB
- The significance of the “safety management system”
- The impact implementing Railway Safety Directive requirements
- How ORR ‘Inspection’ works - the Risk Management Maturity Model (RM3)
- How the RAIB works : Rail Accident Investigation
- How ORR and RAIB interact

Abatis Safety Services Ltd 29

Идет запись этой конференции

Лапшин Александр Криворыжк... ABATIS Охорона Праці Оксана Станіславчук Олег Кисловский Охорона Праці

Railway Safety in Great Britain

END

Abatis Safety Services Ltd 30





