

EMC on the Railways: Who and How



Electromagnetic Compatibility on the Railways: Who and How?

This is a unique opportunity to learn from leading industry experts on Research and Management of Electromagnetic Compatibility (EMC) and to influence how the industry's obligations will be discharged.

The seminar will introduce Network Rail's emerging thinking on EMC Policy.

It builds on the content of the IEE 'EMC Assurance in a Railway Environment' seminar held on 9 September 2003.

Tuesday 25th November 2003

Network Rail

40 Melton Street

Euston

London NW1 2EE

This seminar is organised and sponsored by Network Rail on behalf of the Advisory Group on Rail Research and Innovation (AGRRI).



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Introduction

The Railways (Safety Case) Regulations 2000 require that Network Rail, as infrastructure controller, produces and maintains a Railway Safety Case. The Regulations place the responsibility with the party that introduces a change to demonstrate that the established level of safety is not compromised. Manufacturers are expected to comply with the EMC Directive and to take their own approach for protection against Electromagnetic Interference (EMI) to avoid malfunction of the victim system in proportion to the level of risk involved. EMC is demonstrated as part of the safety case, and cross-referenced from the EMC Project File. Once the safety case is accepted and the change approved responsibility for the safety performance is shared with Network Rail, maintainers and operators. Any maintenance and repair techniques should ensure so far as is reasonable practical that the EMC integrity of the product is not affected. How we do this and how we overcome the deficiencies of the existing EMC standards is the subject of this seminar.

Aims of the day

- Discuss the main points arising from the IEE Seminar;
- Brief participants on Network Rail's emerging EMC Policy;
- Spread knowledge on current and planned research directions;
- Identify gaps in current knowledge and standards; and
- Influence future thinking and research in this area.

Who should attend?

This event will be of interest to professional engineers concerned with management, equipment design, approvals and assurance, from all areas of the rail industry:

- Network operators;
- TOCS;
- ROSCOS;
- Consultancies;
- Rolling stock manufacturers;
- Signalling and infrastructure equipment designers and manufacturers;
- Academics and Professionals with an interest in EMC; and
- Those wanting to follow up issues from the IEE EMC Assurance seminar, 9 September 2003.

Organising Committee

Chris Marshman: York EMC Services, The University of York
Maya Petkova: Network Rail
Clive Avery: AEA Technology Rail
David Bulgin: Rail Safety and Standards Board



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Programme

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| 10.00 | Registration and coffee |
| 10.20 | Introduction |
| 10.30 | EMC Responsibility in respect of application of the EMC Directive on UK
<i>Chris Marshman, York EMC Services</i> |
| 10.50 | EMC policy of Network Rail
<i>Maya Petkova, Network Rail</i> |
| 11.10 | EMC and development of new technology for trains and infrastructure
<i>Clive Avery, AEA Technology Rail</i> |
| 11.30 | Coffee |
| 12.00 | A rolling stock manufacturer's perspective
<i>TBA</i> |
| 12.20 | Measurements of RF1 from moving trains (results of new research sponsored by DT1)
<i>Andy Rowell, York EMC Services</i> |
| 12.40 | Proposed research work on Railway EMC
<i>David Bulgin, Rail Safety and Standards Board</i> |
| 13.00 | Lunch |
| 14.00 | Review and feedback from the IEE seminar
<i>Chris Marshman, York EMC Services</i> |
| 14.15 | Panel discussion |
| 15.30 | Coffee, informal discussions and networking |

AGRRI **Joining up UK railway research**

This seminar is one of a series promoted by the Advisory Group on Rail Research and Innovation (AGRRI). Many of the challenges currently facing the railway industry can be addressed through technological development. AGRRI facilitates and promotes this through bringing together the main players in UK railway research.

For further information, please visit our website: www.agrri.org.uk

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