

**Safety & Reliability Society London Branch:
Application of Engineering Safety Management on a Major Project – Lessons Learnt
Biographies for the team presenting the webinar series**

Michael Kilby, Managing Director, MAK Rail System Engineering Solutions Ltd.

Michael has worked in the rail industry for over 35 years, the first 7 of these as a rolling stock design & test engineer for Alstom. He joined the Crossrail Project in 2007 as the Rail Systems and Rolling Stock Manager, with the responsibility for leading the team developing the reference designs and performance specifications for these systems. In 2010 he took over the role of Head of System Safety & Interoperability with the responsibility for establishing the Engineering System Safety Plan and the supporting processes. He subsequently supported the Crossrail Infrastructure Manager RFLI (Rail For London - Infrastructure) in developing their; acceptance and bringing into use strategy, safety management system and establishing a governance panel to review and accept the critical evidence from the Project and RFLI's evidence for readiness. In 2020 Michael joined MTR-Elizabeth Line (MTREL), the Crossrail train and station operator, as Head of System Assurance developing MTREL's assurance strategy to support MTREL's safety submission for entry into revenue service.

Carol Bloxsome, Safety Consultant, CIB Consultancy.

Carol has worked as a safety consultant in the rail industry for 30 years. She has extensive experience in the field of system safety and safety risk assessment techniques. She specialises in providing analysis, and support to safety management. Carol has been involved with the Crossrail Project since 2009. She initially worked for Crossrail supporting the project in Engineering Safety Management, developing the: System Safety Plan; Hazard Management Procedures; Project Wide Hazard Record; and overseeing the safety work undertaken by design contractors. Subsequently she worked for Rail for London developing safety procedures; RFLI's Hazard Record and Safety Risk Model; and reviewing Crossrail safety documentation to support Handover of the railway elements to RFLI.

Hayat Zerkani, Principal Engineer, Systems Engineering and Assurance Lead, Transport for London

Hayat was the Head of System Safety & Interoperability at Crossrail from 2016 to its close out stage in 2023. She was responsible for delivering System Safety Assurance and Interoperability compliance for the Elizabeth Line Central Operating Section. This was achieved by:

- Delivering Technical Files that allowed Crossrail to gain Authorisation to Place in Service (APIS) from the Office of Rail and Road (ORR)
- Establishing processes to ensure that evidence from across the Project is generated progressively to support Safety Justifications and that all elements of the railway are safely integrated
- Producing Safety Plans for each milestone

- Delivering the COS Safety Justification and Safety Justifications for all systems and elements
- Managing the Assessment Body and the Approved Body
- Managing stakeholders including Rail for London Infrastructure, London Underground, Crossrail Contractors, System Review Panel (SRP) and the ORR.

Hayat gained her PhD from Sheffield University in Control Engineering. She has been in the railway industry for 23 years, initially in consultancy with Mott MacDonald and Praxis working in projects worldwide then in Transport for London for the last 19 years. She was seconded from Transport for London (TfL) and is now back with TfL supporting leading Assurance for the Piccadilly line Upgrade Programme.

Ruairi Kennedy, Managing Director, Simple Systems Consulting.

Ruairí is an expert in the delivery of assured safe, integrated and high performing railway systems, operations and organisations (ESM, CSM, RM3, etc.). During his time with the Crossrail Project in 2017 and through to Elizabeth Line revenue service he delivered:

- CRL Safety Strategy for Energisation and Dynamic Testing in the Central Operating Section.
- Multiple CRL/RFLI System Review Panels as Technical Secretariat.
- Rolling Stock-Signalling Integration Safety Justifications for CL345 Passenger Trains and both Engineering Trains (Robel (Multi Purpose Vehicle) and Linsinger (Railhead Profiling Machine).
- Programme level HAZID risk assessments for System Integrator through Dynamic Testing, Trial Running and Trial Operations.

He is currently a Rail Systems Subject Matter Expert with Crossrail International.

Madeleine Osei-Baffoe, Systems Engineering Consultant, Nextec Engineering Limited.

Madeleine worked alongside the Head of System Safety for Crossrail for six years delivering System Safety for the Central Operating Section of the Crossrail project. She was responsible for the Crossrail level safety requirements and hazard management including the management of the Hazard Record, reviewing and accepting Tier 1 safety deliverables, as well as authoring a number of the CSM compliant Crossrail level Safety Justifications for the Central Section stations and systems. Madeleine produced the Safety Justifications for the new Canary Wharf station and the overall Platform Train Interface including Platform Screen Doors as well as provided the team support and advice in the closure and transfer of hazards and residual risks in accordance with CSM REA across the project.