

AEGIS Certification Services

Alastair Roberts, Head of Certification (Plant), introduces the organisation and its accredited PAB team.

The AEGIS Group of companies delivers independent engineering and certification services across railway rolling stock, plant, infrastructure and operations. Whilst AEGIS Engineering Systems is in its 23rd year, AEGIS Certification Services was formed and accredited as a Plant Assessment Body (PAB) in early 2018, shortly after being appointed by Network Rail to undertake Product Acceptance (PA) review on its behalf. AEGIS is also an accredited Notified Body, Designated Body and Assessment Body. This means AEGIS can offer the full suite of third party certification required for plant to be used on the Network Rail Managed Infrastructure (NRMI).

Following an increased demand, the team has increased from three to seven people. AEGIS' PAB activity is focused on assessment of conformance with applicable Rail Industry Standards (RIS-1710-PLT, RIS-1702-PLT and RIS-1530-PLT). This technical review of the design and build of the machine covers all aspects including stability, control systems, software systems, EMC, structural integrity and prevention of derailment.

By contrast, the PA review ensures that the product is fit for purpose for the NRMI; its focus is on demonstrating safety, performance and compatibility. Areas of review include risk management systems, training material and operational outputs. The team also offers Independent Competent Person verification for clients where RIS-1710-PLT is not mandated by the infrastructure manager; for example HS1, Eurotunnel and Northern Ireland Railways.

Projects and case studies

The team has worked on a wide range of products in the relatively short time it has existed, working with global OEMs, upgraders and component suppliers. Project types include:

- On-Track Plant (OTP) seven-year upgrades.
- New build OTP and On-Track Machines (OTMs).
- Engineering changes to OTP and OTMs.
- PA reviews covering OTP, OTMs and portable plant.

During 2019, the AEGIS PAB issued in excess of 250 certificates including:

- A new RCI system.
- An excavator with hydraulic winching capabilities including an RCI software update to control backwards stability when lowering loads to the floor using the winch.
- A software update after a runaway incident.
- Replacement road axle following an in-service failure.

Meet the team

■ **Alastair Roberts** - the Head of Certification (Plant) who also undertakes assessor and signatory duties. He has worked in the rail industry for over 20 years for rolling stock and infrastructure OEMs, joining AEGIS Certification Services soon after the company was formed in 2018. Alastair has a degree in mechanical engineering and is a chartered engineer as well as a Fellow of the IMechE and PWI.

■ **Alastair Clarke** - a senior engineer undertaking assessor and signatory duties. He has over 38 years' experience in the rail industry, starting his career as an apprentice at



BREL Doncaster before joining the British Rail Plant team. After expanding his experience with Engineering Link, AEA Technology and Deltarail, where he became a signatory for OTP and OTMs, Alastair joined Network Rail as a senior portable plant engineer before moving to the role of rail plant support engineer. He has a HND in mechanical and production engineering and is an incorporated engineer with the IET.

■ **Andrew Allen** - a senior engineer who undertakes assessor activities. He is also a level crossing risk assessment specialist. Andrew has 13 years' rail industry experience, previously working as a trackbed engineer for Scott Wilson before moving to Network Rail as a gauging engineer and scheme project manager. At AEGIS, Andrew has facilitated CSM Hazard Identification workshops and authored risk assessment reports approved by the ORR. He has a degree in civil engineering and is a chartered engineer with the IMechE.

■ **Karen Ruff** - a document controller for AEGIS Certification Services. She supports all certification and independent verification projects, providing management support to the project team and managing her own projects. Karen controls and maintains the registers for certification, impartiality, competency and internal standards. She has 10 years' experience in the rail industry, previously working at SNC-Lavalin Rail & Transit in the documentation section of the AMMS team and at Bombardier Transportation Central Rivers Depot. Karen is a qualified internal auditor.

■ **Sam Barrett** - a senior engineer who undertakes assessor and signatory duties. He has seven years' experience in the rail industry, working previously in the Network Rail plant engineering team and the Atkins PAB team. Sam joined AEGIS in 2017 to assist with gaining PAB accreditation. He also sat on the panel responsible for implementing the Network Rail Product Acceptance outsourcing scheme and introduced processes that led to AEGIS being accredited by Network Rail as part of the scheme. Sam has a degree in mechanical engineering and is a chartered engineer with the IMechE.

■ **Steve Curphey** - a senior engineer who undertakes assessor activities. He has 10 years' rail industry experience working with infrastructure OEMs. Steve started with LB Foster where he installed and evaluated the

AEGIS Certification Services PAB team (left to right): Andrew Allen, Alastair Clarke, Tony Dawson, Karen Ruff, Sam Barrett, Steve Curphey and Alastair Roberts.

performance of friction management equipment. Subsequently, he worked with Pandrol Track Systems, developing rail fastenings systems and managing new product introduction projects globally while working closely with rail authorities, manufacturers and contractors. Steve is a qualified internal auditor. He has a degree in mechanical engineering and is working towards becoming a chartered engineer with the IMechE.

■ **Tony Dawson** - a senior engineer who undertakes assessor activities with 19 years' experience in the rail industry including as a fitter with Maintrain/East Midland Trains. He joined Network Rail where he became an engineer and worked in mechanical maintenance, depot plant, internal and external auditing, vehicle assessment and certification. Tony is a qualified internal and external lead auditor. He has a foundation degree in railway engineering and is a STEM ambassador for AEGIS.

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