



AN INTRODUCTION TO AEGIS CERTIFICATION SERVICES LTD

THE POSITIVE CHOICE

ABOUT AEGIS

AEGIS Certification Services Ltd delivers engineering and independent certification services across the railway industry – in railway rolling stock, plant, infrastructure and operations.

Working with AEGIS gives direct access to highly experienced professionals providing approvals expertise and rapid response.

Our business success has been founded on technical expertise, the ability to mobilise quickly, and the agility to be flexible in response to our clients' needs.

Key Factors in our success include:

- Rapid Mobilisation
- Industry Experts
- Customer Focus
- Wide scope of third-party accreditation

KEY SECTORS

We undertake independent certification and inspection work in the following sectors:

- Passenger Rolling Stock
- Infrastructure
- On-track Machines (OTM)
- On-track Plant (OTP)
- Freight/Wagons

INDEPENDENT SERVICES

AEGIS can deliver a combined role covering ISA, ApBo, DeBo/AsBo and PAB as required to support the efficient delivery of independent assurance requirements.

Benefits include simplification of interfaces and avoiding repetition / duplication of assessment.

APPROVED BODY AND DESIGNATED BODY

AEGIS is appointed by the DfT as an Approved Body (ApBo) and Designated Body (DeBo) against the Railways (Interoperability)(Amendment) (EU Exit) Regulations 2019 and amendments and are able to undertake certification against all the structural and transverse National Technical Specification Notices (NTSNs) including:

- Rolling Stock (LOC & PAS)
- Control-Command and Signalling (CCS)
- Energy (ENE)
- Infrastructure (INF)
- Noise
- Persons with Reduced Mobility (PRM)

- Safety in Railway Tunnels (SRT).

As a Designated Body (DeBo), AEGIS will assess conformity against the National Technical Rules (NTRs). The majority of railway projects that require a demonstration of compliance with NTSNs will also require a demonstration of NTR compliance.

We offer certification of new and modified vehicles and infrastructure, including interoperability constituents. Our team has considerable experience of different project types and in addition to the conformity assessment itself, we can:

- Support the selection of applicable standards;
- Support the selection of conformity assessment modules;
- Construct the authorisation Technical File (this is the file submitted to the Office of Road and Rail for the subsystem to be authorised into service, it is in addition to the ApBo/DeBo technical file).

ASSESSMENT BODY

An Independent Assessment Body (AsBo) has become an industry requirement since the introduction of EU Regulation 402/2013, which was introduced to standardise the quality of risk assessments produced by railway companies when making changes to the mainline railway that could have a potential impact on operational safety.

Where a change is deemed "significant", it is a legislative requirement that a Risk Management Process (RMP) compliant with CSM-RA Regulation is implemented. As part of the CSM-RA, an independent Assessment Body (AsBo) must check that the RMP and its results comply with the Regulation.

CSM-RA is noted within the industry as a best practice risk management process. Increasingly, those projects deemed "not significant" or not falling within the formal scope of CSM-RA are choosing to adopt CSM-RA and selectively appointing an AsBo to verify the implementation of the process.

The change can be to any railway technical system such as Rolling Stock, Signalling (Control and Command), Energy, Infrastructure as well as operational and organisational changes.

INDEPENDENT SAFETY ASSESSMENT

Independent safety assessment (ISA) is the formation of a judgement, separate and independent from any system design, development or operational personnel, that the safety requirements for the system are appropriate and adequate for the planned application and that the system satisfies those safety requirements.

In carrying out independent safety assessment, the AEGIS Independent Safety Assessment team will:

- Define the scope and context of the assessment
- Select and plan a cost-effective assessment strategy combining audit, desktop assessments, site visits and additional analyses
- Gather all relevant evidence of safety
- Provide a judgement
- Support the project through phased approval stages

An ISA is often mandated for major safety critical railway projects and for many it provides confidence that safety claims are justified and that any weaknesses that are identified have been mitigated appropriately.

Reasons for engaging an ISA include:

- To demonstrate compliance with the CENELEC EN50126, 8 or 9 or ISO IEC61508 standards
- An Infrastructure Manager or ROSCO can be assured that a contractor's product is safe
- To demonstrate to a regulator or customer that the product is safe

We have been providing ISA services to the rail industry for over 20 years, and our assessors:

- Have a detailed understanding and experience of preparing safety justifications from the client perspective
- Will work with the client to ensure the ultimate shared goal of a safe railway, whilst respecting the independence requirements of their accreditation.



INDEPENDENT SERVICES

- Independent Safety Assessment (ISA)
- Assessment Body (AsBo)
- Approved Body (ApBo)
- Designated Body (DeBo)
- Verification of Engineering Change RIS-2700-RST
- Plant Assessment Body (PAB), RIS-1710-PLT
- Network Rail Product Acceptance (PA)
- Independent Competent Person (ICP)

RAILWAY STANDARDS COMPLIANCE

AEGIS has a deep understanding of standards and their application to the approvals process.

Whether it is a new build passenger train, new infrastructure product, OTM/OTP or an engineering change to existing stock or infrastructure, we can identify the applicable standards and specifications, agree the relevant clauses, and provide the relevant documentation to regulatory bodies.



INDEPENDENT COMPETENT PERSON

Under the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS), non-mainline transport operators need procedures to cover safety verification of new or altered rolling stock or infrastructure.

Within the safety verification process, we have experience of acting as the Independent Competent Person (ICP) to assess the compliance of engineering changes made to railway systems.

The AEGIS ICP can:

- Support the duty holder in identifying applicable industry and European standards against which to assess the engineering change.
- Undertake conformance assessment of the engineering change.
- Issue an ICP certificate or Attestation Statement, stating compliance with the agreed standards.
- Attend approval/safety committees to provide an independent expert opinion on engineering conformance.

VERIFICATION OF ENGINEERING CHANGE TO RAIL VEHICLES

Our BS EN ISO/IEC 17065:2012 accreditation covers undertaking independent verification activities under RIS-2700-RST (Rail Industry Standard for Verification of Conformity of Engineering Change to Rail Vehicles). This replaces the superseded Vehicle Acceptance Body (VAB) role and involves the verification of design, construction and maintenance against the requirements defined by the client (which may include Railway Group Standards, Railway Industry Standards Euronorms or specific customer requirements) resulting in a formal Attestation Statement (certificate) being issued. We can also offer Non-Accredited RIS-2700-RST upon request.

Where clients wish to make changes to existing rail vehicles AEGIS can apply the RIS-2700-RST conformity assessment process to assure stakeholders of the compliance of that change to the relevant applicable Standards.

Furthermore, the RIS-2700-RST process can be used for assessment of Direct Replacement Components, (previously described in GMRT2000 technical note TN-020).



PLANT ASSESSMENT BODY

The scope of our accreditation to BS EN ISO/IEC 17065:2012 also includes the ability to undertake Plant Assessment Body (PAB) certification in accordance with RIS-1710-PLT (Rail Industry Standard for Engineering Certification of Rail borne Plant). Assessment is undertaken against design standards RIS-1530-PLT and RIS-1702-PLT.

The AEGIS PAB team offers assessment and certification (Engineering Conformance Certificate - ECC) of:

- New On-track Machines (OTM) and On-track Plant (OTP)
- Engineering changes made to OTM and OTP
- Mandatory 7-year re-assessment of OTP

All OTMs and OTP must be certified by a PAB for use on the Network Rail managed infrastructure. OTMs generally also require ApBo, DeBo and AsBo assessment in addition to PAB assessment; where this is the case AEGIS can offer complete certification packages for the product.

Typical AEGIS PAB projects include certification of:

- New build Road Rail Vehicles
- Engineering changes to allow use of road rail vehicles with new or different modules/attachments
- Existing road rail vehicles imported to the UK from mainland Europe.
- New Build On Track Machines
- Engineering changes to On Track Machines

AEGIS are also accredited by Iarnrod Eireann to certify On Track Plant for use on their infrastructure. The accreditation permits AEGIS to issue certificates for all OTP whether newly built, having undergone mid-life upgrade or undergone mid-term engineering changes to their construction, for use on the Iarnrod Eireann infrastructure.

This completes the AEGIS offering for customers within this territory, enabling us to deliver turnkey projects, taking projects from concept, through design, installation, testing and verification through to certification.

NETWORK RAIL PRODUCT ACCEPTANCE

All Plant, including On Track Plant, On Track Machines, Portable and Transportable Plant (for example impact wrenches, mobile stressing equipment) and Mobile Plant (non-rail mounted wheeled/tracked plant) used on the Network Rail managed infrastructure and in depots, must be certified by Network Rail in accordance with its Product Acceptance process.

AEGIS has been appointed by Network Rail to carry out the Product Acceptance scrutiny on their behalf. While Network Rail retain authority to issue the certificate, AEGIS undertake the technical scrutiny and provide a recommendation to Network Rail. Compared to the traditional route to achieving Product Acceptance this leads to:

- Significantly reduced timescales
- Consistent requirements to achieve Product Acceptance

Applicants for Network Rail product acceptance can engage directly with AEGIS, who will:

- Register the application with Network Rail
- Provide the applicant with the technical requirements for their product to achieve Product Acceptance
- Carry out the Product Acceptance Scrutiny
- Manage the interface with Network Rail throughout the process
- Make a recommendation to Network Rail for approval

AEGIS have experience in the Product Acceptance of a wide range of plant products including OTM machines, Road Rail Vehicles, welding equipment, ballast compactors and exclusion zone warning systems.

RIS-1710-PLT APPROVAL PROCESS



1. STATUTORY REQUIREMENTS

- a) Manufacturer carries out self-certification to the Machinery Directive.
- b) OTMs in running mode assessed by ApBo for compliance to NTSN's, DeBo for compliance to NTR's and AsBo for CSM RA report.

2. ENGINEERING CONFORMANCE

All railborne plant assessed for compliance to agreed GB Industry Standards by PAB.

AEGIS' scope of accreditation by UKAS as a PAB

3. PRODUCT ACCEPTANCE

Initial product acceptance of first of class by each Infrastructure Manager.

AEGIS' authorised by Network Rail to undertake Product Acceptance on its behalf

4. USE OF PLANT

Each time an item of railborne plant is planned to be used, it is assessed by the user to confirm it is capable of delivering the safe work plan proposed.

WHAT DOES AEGIS DO WELL?

Here is what our customers have to say.



AEGIS has a really good core team of people with an excellent range of skills.

AEGIS does what they say they are going to do, when they say they are going to do it and to the expected level of quality.

AEGIS is customer service focused while ensuring high standards are maintained.

I have been able to recommend AEGIS internally due to their specialist understanding of RAMS for software and their approvals team. AEGIS is excellent at understanding the customer's needs.

Quick to respond to technical issues.

Professional helpful service and their engineering team has some outstanding engineers.

A WIDE CUSTOMER BASE



UNIPART
RAIL

 **Mors Smitt**
A Wabtec company


ALLAN J HARGREAVES
plant engineers ltd.


Freightliner
a Genesee & Wyoming Company


**EURO
TUNNEL**


G.O.S. TOOL & ENGINEERING
SERVICES LTD


VTG


LORAM 



THE POSITIVE CHOICE

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