

Project title	Class 170/4, Low Adhesion Water Spray System Compliance
Client name	Water-Trak

SCOPE/OBJECTIVE

Water-Trak has developed a Low Adhesion Water Spray System.

The purpose of the innovative Water Spray System is to provide better adhesion at the wheel rail interface, by wetting and changing the frictional characteristics of contaminants on the rail head, with the potential to enhance the braking and traction performance of T&RS. This approach has been previously demonstrated in trials on Class 319/3 units.



AEGIS Certification Services (ACS) were appointed as the 3rd Party Independent competent body to provide verification of this innovative concept.

THE TECHNOLOGY

The Water-Trak system delivers a jet of water to the rail head when triggered by a WSP activity, improving the traction and braking performance to the vehicles by providing improved adhesion at the wheel rail interface.

HOW WE HELPED

ACS provided a route to approval for Water-Trak, enabling their innovation to be operated in passenger service in two Northern Trains Class 319/3 units during the autumn of 2021.

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As a result of these trials, Water-Trak developed the system to undertake further trials in two Northern Rail, Class 170/4 units.

We worked with Water-Trak to achieve the challenging timescales to approve the new design installations enabling the trials to be realized.

We followed the principles of RIS-2700-RST to provide verification and issued Attestation Statements for Design and Construction for the First in Class.

OUTCOME

Water-Trak systems have been fitted to one Class 170/4 unit and is due to be trialed during autumn 2022 and 2023. Following a successful demonstration of the technology, it is expected that further operators will roll out this technology in their fleets.

