

Project title	First Approval of FPS Rail Ranger
Client name	Fitzgerald Plant Services Ltd

SCOPE/OBJECTIVE

This was the first Fitzgerald Plant Services (FPS) Polaris Ranger to be converted for Rail use – The Polaris Rail Ranger.

Road Rail Vehicles (RRVs) are machines which are converted to be used on rail by the addition of rail wheels/bogies and the associated control systems, along with any modifications required in other areas of the machine to ensure they meet the relevant standards to be used in the railway environment.

TECHNOLOGY USED (IF APPLICABLE)

To demonstrate the machine meets the requirements of both RIS-1530-PLT and Product Acceptance, the machine was extensively tested at both the FPS workshops at Cwmbran and the Blaenavon heritage railway.

Tests were carried out to demonstrate compliance in the following areas - Braking, Static testing, Towing, Electromagnetic Compatibility and Structural Verification.

HOW WE HELPED

The process for approving machines for use on rail within a possession is detailed within RIS-1710-PLT. The specific technical requirements for RRVs are contained within RIS-1510-PLT, currently issue 6. Whilst compliance to this rail industry standard (RIS) is not a legislative requirement, it is mandated by Network Rail. Each individual machine must be certified by a Plant Assessment Body (PAB) prior to use on the rail infrastructure. This certification is in the form of an Engineering Conformance Certificate (ECC) which remains valid for up to seven years from the date of issue.

In addition to the ECC, each type of machine must also be granted Product Acceptance by the Infrastructure Manager.

Legislative requirements mandate that the machine is CE marked. RIS-1530-PLT requires that the harmonised standard for RRVs, BS EN 15746-2:2010+A1:2011, is used. Although CE marking is fulfilled by the manufacturer self-certifying the machine, this is also reviewed in part during the PA process.

AEGIS have been an accredited PAB since December 2017 and authorised by Network Rail to undertake PA scrutiny since January 2018.

OUTCOME

Whilst FPS are contracted to maintain many OTP's in the UK, they utilised their specialist knowledge in this area to optimise the maintenance requirements for the machines.

Following the review processes above, AEGIS were able to issue a First of Class ECC and make a recommendation to Network Rail to issue Product Acceptance for the machine type.



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