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Process for Adding, Removing or Modifying Lettered Differential Permissible Speeds

Briefing note

Background

Lettered Differential Permissible Speeds (LDPSs) are used to permit certain types of rolling stock with the necessary characteristics to operate at increased speeds on particular sections of the network, without the cost and disruption of modifying the infrastructure to raise the line speed for all rolling stock. There are different categories of LDPS which are indicated on the network by different combinations of letters.

What is it about?

This standard addresses the use of LDPSs indicated by the letters 'SP', 'MU' and 'HST'. The RSSB research project T1163, *Criteria for assigning differential speed categories,* developed criteria for rolling stock to be categorised as 'MU' or 'HST'. The earlier research project T996, *Categorising the relationship between track condition, line speed and vehicle forces*, provided criteria for the 'SP' classification.

T1163 also developed decision processes for adding, removing or updating LDPSs on the infrastructure and undertook case studies to give examples of the potential benefits. This information has been used in the development of this new standard.

What has changed?

This standard provides clear processes to be used by projects adding, removing or modifying LDPSs on the infrastructure of the GB mainline network. It also provides guidance on the range of infrastructure parameters and characteristics to be taken into account in determining whether an LDPS is an appropriate solution in each case, and which LDPS category is most suitable.

The case studies help to demonstrate the range of applications and benefits associated with the use of LDPSs.

What are the benefits?

Providing clear processes to be used for adding, removing or modifying an LDPS will ensure consistency of application and smooth the decision process for projects. This, together with the updated RIS-2711-RST *Lettered Differential Permissible Speeds Classification*, which gives clear criteria for categorising rolling stock, will contribute to an estimated industry net benefit of £12.5m over 10 years.

Who is it for?

The standard is intended for use by individuals and project teams involved in the specification and design of differential speeds on the GB mainline infrastructure.