

RAILTRACK

Safety & Standards

SAFETY JUSTIFICATION**ISSUE: I****PART 1 - DOCUMENT INFORMATION**

Document Title:	Braking Principles for Rail Vehicles		
Document No:	GM/RT2045	Issue:	Two
Primary Subject Committee:	T&RS		
Other Subject Committee input/ involvement:	None		
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Submitted by: Standards Project Manager		Date:	10/08/99
Reviewed by: Controller, Safety, Strategy and Planning		Date:	24/08/99
Approved by: Controller, Railway Group Standards		Date:	24/08/99

PART 2 - EXECUTIVE SUMMARY

The existing braking performance Standards only define acceptable stopping distances for speeds up to a maximum of 125 mile/h. The proposed introduction of high speed trains capable of running at speeds in excess of 125 mile/h has meant a new Standard GM/RT2046 has been introduced to cover the braking performance for trains when operating at these higher speeds.

The production of the new GM/RT2046 requires some minor changes to the cross references and the definitions in the complimentary Standards including GM/RT2045. There have been no changes to the fundamental requirements contained in GM/RT2045.

PART 3 - BACKGROUND**Need for change**

The introduction of trains onto Railtrack controlled infrastructure whose maximum speed is greater than 125 mile/h requires their braking systems and performance to be defined by Railway Group Standards.

The new high speed trains will generally be fixed or semi-fixed formations that can have distributed power systems. These trains do not conform to the definition of locomotives and coaches nor do they fit within the definition of multiple units.

Proposed changes

A new Standard GM/RT2046 will be introduced applying to the braking system and stopping distance performance for all trains when operating at speeds greater than 125 mile/h.

The production of GM/RT2046 necessitates some minor changes to the cross references and definitions to cover fixed consist trains in GM/RT2045.

A specific reference to the brake rate changeover at 125 mile/h required in GM/RT2046 has been added to the requirement regarding control of single point failure.

A consistent approach has also been adopted for the method of specifying speeds to ensure compatibility with those quoted in signalling Standards.

PART 4 - COSTS AND BENEFITS

The benefits of the changes to the Standard is to allow the publishing of a homogeneous set of complementary braking Standards with up to date cross references. The changes are for clarification purposes and it is considered that they will not increase costs for existing users.

PART 5 - CONCLUSION

The proposed changes set out to clarify the cross references between the braking Standards following the introduction of GM/RT2046. The changes will not introduce any additional costs to the users and it is therefore concluded that the changes are justified.
