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Railway application - High speed

Dynamic integration tests and trial operation before revenue operation



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CONTENTS

Foreword	1
Executive summary	3
Field of application	4
References documents	5
Abbreviations and Symbols	6
Concepts, terms and definitions	7

General Application

1 – Tests prior to dynamic integration tests	10
1.1 – Introduction	10
1.2 – Design review.....	11
1.3 – Checks and tests during construction of the high speed line	12
1.4 – Static tests per component, per subset and per subsystem	12
1.5 – Interface tests	13
2 – Dynamic integration tests	15
2.1 – Introduction	15
2.2 – Prerequisites	15
2.3 – Organisations and instructions.....	15
2.4 – Test execution.....	18
2.5 – Test contents	19
2.6 – Test instruments.....	22
2.7 – Standards and tolerances to be observed	22
2.8 – Test-related documents	23

3 – Trial operation before revenue operation	26
3.1 – Introduction	26
3.2 – Downgraded situations.....	27
3.3 – Accidents – Serious incidents	28
3.4 – Endurance tests	28
Bibliography	29

Foreword

An International Railway Solution (IRS) is a document drawn up by consensus and applied on a voluntary basis which aims to facilitate and harmonise railway operation.

IRSs are gradually replacing UIC leaflets.

Members of the International Union of Railways (UIC) participate in the creation of IRSs, of which they benefit in full. Furthermore, marketing to railway stakeholders contributes to the sharing and harmonisation of good practices, in accordance with UIC's primary goal.

While IRSs do not have the force of law, they are created and published in a professional manner and with technical approval on the basis of UIC procedures, and have full technical legitimacy in the railway sector.

The "General application" section constitutes the heart of the IRS and contains the working group's expertise applicable in the broadest manner. The addition of a "Specific application" aims to cover factors specific to a region, a type of service, etc.

Some provisions shall be implemented in all cases to ensure correct application and maintain the system's cohesiveness. Certain operational circumstances require that specific provisions be systematically applied by all users of the document.

For the purposes of understanding, the user acknowledges that the expression of:

- obligation indicates requirements to be respected in order to comply with the expertise expressed in the document (usually "shall");
- recommendation indicates options that are favourable but not essential (usually "should");
- permission indicates options that are recognised but without consequence (usually "may");
- capacity indicates possibilities from a technical standpoint and not permissions or probabilities (usually "can").

Obligation, recommendation and capacity can be expressed in the negative to indicate prohibiting, non-recommendation and incapacity.

If applicable, notably for the purposes of compliance with a UIC approval, passages that are recommended or mandatory for the cohesiveness of the system will be accompanied by the letters "R" and "MCS" respectively.

This IRS reflects the following UIC working group expertise:

High-Speed IRS working group
Intercity & High-Speed Committee

It integrates in full or in part the following UIC leaflets:

Not applicable. (There are no UIC leaflets integrated in IRS 60661)

It complements the following standards:

Not applicable. (There are no standards complemented by IRS 60661)

The following IRSs constitute a complementary series:

Not applicable

Executive summary

This International Railway Solution (IRS) reviews dynamic integration tests and trial operation work for high speed lines and is intended to serve as a guide for the practical implementation of the work involved. This IRS can also serve as a reference for dynamic integration tests and trial operation or similar work conducted on conventional lines.

In order to make the position clearer and to offer a comprehensive guide, this IRS document also deals briefly with aspects preceding the dynamic integration tests.

This IRS clearly reflects the present state of knowledge, considering currently applicable (international) practices and shall be reviewed periodically as required.

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Field of application

This IRS applies to dynamic integration tests and trial operation work for high-speed lines and it is intended to serve as a guide for the practical implementation of the work involved.

References documents

The following documents are cited in this IRS or strongly support its requirements and recommendations:

1. Miscellaneous

International Union of Railways (UIC)

- [1] *UIC Leaflet 518 - Testing and approval of railway vehicles from the point of view of their dynamic behaviour - Safety - Track fatigue - Ride quality*

International Electrotechnical Commission (IEC)

- [2] *IEC 62278: Railway applications - Specification and demonstration of reliability, availability, maintainability and safety (RAMS)*

Abbreviations and Symbols

IM	Infrastructure manager
RO	Railway operator
EMC	Electromagnetic compatibility
RAMS	Reliability, Availability, Maintainability and Safety