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Guide d'application de la prescription technique uniforme applicable au sous-système « Matériel roulant – Bruit » (PTU Bruit) du 1er janvier 2025

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Le présent document constitue un guide d'application de la prescription technique uniforme applicable au sous-système « Matériel roulant – Bruit » (PTU Bruit), dans sa version du 1er janvier 2025. Il propose des éléments d'orientation, par exemple pour les organismes d'évaluation et les autorités compétentes, et ne comporte pas d'exigences juridiques. Son but est de faciliter l'application uniforme de la PTU Bruit. Pour les exigences juridiques applicables, voir PTU Bruit.

Le document source n'existant qu'en anglais, le guide n'est pour l'heure pas disponible en français et en allemand.

Le présent document explicatif a été examiné et approuvé par la Commission d'experts techniques à sa 17e session (Berne, 17-18 juin 2025).

0. INFORMATIONS RELATIVES AU DOCUMENT

Le présent document est basé sur le guide d'application de l'Agence de l'Union européenne pour les chemins de fer concernant la STI Bruit (réf. Application Guide GUI/NOI TSI/2023, version 2.0 datée du 8 décembre 2023 – en anglais uniquement).

Puisque la STI Bruit et la PTU Bruit sont équivalentes au sens de l'article 13, § 4, lettre b), des RU APTU, la plupart des informations données dans le guide d'application de la STI valent également pour l'application de la PTU. Par conséquent, les textes du guide d'application de la STI sont repris dans le présent guide d'application de la PTU.

Dans le présent document, le chapitre 0 et les cadres bleus comme celui-ci contiennent des informations pertinentes pour l'application de la PTU Bruit spécifiquement.

Par conséquent, tous les textes originaux de l'OTIF dans le présent guide d'application se trouvent dans des cadres bleus. Tous les autres textes ont été repris du guide d'application de la STI publié par l'Agence. En règle générale, sauf mention contraire, lorsque le guide renvoie à la « STI », cela peut être compris comme couvrant également la PTU et lorsque le terme « État membre » est employé, il correspond au terme « État partie » au sens de la COTIF.

Le document source n'existant qu'en anglais, le guide n'est pour l'heure pas disponible en français et en allemand.

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1. SCOPE OF THIS GUIDE

This document is an annex to the 'Guide for the application of TSIs'. It provides information on the application of Commission Regulation (EU) No 1304/2014 of 26 November 2014 on the technical specification for interoperability relating to the subsystem 'rolling stock — noise'('NOI TSI').

This version 2023 of the guide is updated based on the Commission Implementing Regulation (EU) 2023/1694 of 10 August 2023 amending Regulations (EU) No 321/2013, (EU) No 1299/2014, (EU) No 1300/2014, (EU) No 1301/2014, (EU) No 1302/2014, (EU) No 1304/2014 and Implementing Regulation (EU) 2019/777.

The guide should be read and used only in conjunction with the NOI TSI. It is intended to facilitate its application, but does not replace it.

Based on the guide for the application of the TSI, the information in this guide relates equally to the application of the UTP NOI. The NOI TSI application guide is published on the website of the European Union Agency for Railways:

https://www.era.europa.eu/system/files/2023-12/NOI_TSI_Guide.pdf?t=1710842868

Health and safety conditions have not been taken over from the NOI TSI in the UTP, as the APTU and ATMF Uniform Rules do not cover the lower exposure action values for drivers' cabins. However, Contracting States may have similar health and safety legislation in place.

1.1 Content of the guide

In the following chapters of this document, extracts of the text of the NOI TSI are provided, in shaded text boxes, which are followed by a text that gives guidance.

The excerpts from the NOI TSI are shown in yellow rectangles. These TSI excerpts are equivalent in substance to the texts of the UTP Noise, unless indicated otherwise in a blue rectangle.

Guidance is not provided for clauses where the NOI TSI requires no further explanation.

Guidance is of voluntary application. It does not mandate any requirement in addition to those set out in the NOI TSI.

Guidance is given by means of further explanatory text and, where relevant, by reference to standards that demonstrate compliance with the NOI TSI. Relevant standards are listed in appendix 1of this document, and their purpose is indicated in the column 'Purpose' of the table.

1.2 Document reference/s

General document references can be found in the general part of the guide for the application of TSI.

1.3 Definitions and abbreviations

Definitions and abbreviations are given in the general part of the guide for the application of TSI.

Tables 1 (definitions) and 2 (abbreviations) are not included in the EU guide for the application of the NOI TSI, as corresponding definitions and abbreviations are included in the general part of the TSI application guides. As this general part is not taken over by OTIF, these tables are included in this UTP guide, with the exception of terms that are EU-specific and therefore have no relevance to the application of the UTP.

Table 1: definitions	
TERM	**DEFINITION/SOURCE**
Basic parameter	Any regulatory, technical or operational condition which is critical to interoperability and is specified in the relevant UTPs.
Conformity assessment	Process demonstrating whether specified requirements relating to a product, process, service, subsystem, person or body have been fulfilled.
Conformity assessment body	Body that has been notified or designated to be responsible for conformity assessment activities, including calibration, testing, certification and inspection in accordance with Article 5 of the ATMF UR and UTP GEN-E.
Contracting entity	Public or private entity which orders the design and/or construction or the renewal or upgrading of a subsystem.
European Register of Authorised Types of Vehicles (ERATV)	EU register of types of vehicles authorised by the Member States for placing in service. It contains the technical characteristics of vehicle types as defined in the relevant TSIs, the manufacturer's name, dates, references and Member States granting authorisations, restrictions and withdrawals (Article 48 of Directive (EU) 2016/797). At the time this guide was published no similar register was established under COTIF.
Existing rail system	Infrastructure composed of lines and fixed installations of the existing rail network as well as vehicles of all categories and origin travelling on that infrastructure.
Harmonised standard	European standard adopted on the basis of a request made by the European Commission for the application of Union harmonising legislation (Article 2(1)(c) of Regulation (EU) No 1025/2012).
Open point	Certain technical aspects corresponding to the essential requirements, which cannot be explicitly covered in a UTP.
Project at an advanced stage of development	Any project the planning or construction stage of which has reached a point where a change in the technical specifications may compromise the viability of the project as planned.
Register of infrastructure (RINF)	Register of infrastructure indicates the main features of fixed installations, covered by the subsystems: infrastructure, energy and parts of control-command and signalling. In it are published performance and technical characteristics mainly related to interfaces with rolling stock and operation (Article 49 of Directive (EU) 2016/797). At the time this guide was published, no similar register was established under COTIF.
Renewal	Any major substitution work on a subsystem or part of it, which does not change the overall performance of the subsystem.
Specific case	Any part of the rail system which requires special provisions in the TSIs or UTPs, which may either be permanent because of geographical, topographical or urban environment constraints, or which affect compatibility with the existing system. With regard to the European Union this concerns in particular railway lines and networks isolated from the rest of the Union, the loading gauge, the track gauge or space between the tracks and vehicles strictly intended for local, regional or historical use, as well as vehicles originating from or destined for third countries (Article 2(13) of Directive (EU) 2016/797).
Substitution in the framework of maintenance	Any replacement of components by parts with an identical function and performance in the framework of preventive or corrective maintenance.
Upgrading	Any major modification work on a subsystem or part of it which results in a change in the technical file, and which improves the overall performance of the subsystem.

Table 2: abbreviations	
ABBREVIATION	**FULL TEXT**
AC	Alternating Current
CCS	Command Control and Signalling
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardisation
DC	Direct Current
DeBo	Designated Body
EC	European Commission
EEA	European Economic Area
EMC	Electro Magnetic Compatibility
EN	European standard
ERA	European Union Agency for Railways also called “the Agency”
ERADIS	Interoperability and Safety database managed by the European Union Agency for Railways
ERATV	European Register of Authorised Types of Vehicles
ERTMS	European Rail Traffic Management System
ESO	European Standardisation Organisation
ETCS	European Train Control System
EU	European Union
IC	Interoperability Constituent
IEC	International Electrotechnical Commission
IM	Infrastructure Manager
INF	Infrastructure
ISO	International Organisation for Standardization
ISV	Intermediate Statement Verification
MS	EU or EEA Member State
NoBo	Notified Body
NB-Rail	Coordination group of notified bodies for railway products and systems
NSA	National Safety Authority
NSR	National Safety Rule
OJ	Official Journal of the European Union
PRM	Person with Disabilities or Person with Reduced Mobility
QMS	Quality Management System
RFU	Recommendation for Use
RINF	Register of Infrastructure
RISC	Railway Interoperability and Safety Committee
RST	Rolling Stock
RU	Railway Undertaking

SRT	Safety in Railway Tunnels
TR	Technical Report
TS	Technical Specification
TSI	Technical Specification for Interoperability
UIC	International Union of Railways (Union Internationale des Chemins de fer)
WG	Working Group
WP	Working Party

The definitions and abbreviations, within the meaning of COTIF, are provided in Article 2 of the APTU UR (Appendix G to COTIF) and Article 2 of the ATMF UR (Appendix G to COTIF), as well as in other UTPs referred to throughout this application guide.

2. GUIDANCE ON THE APPLICATION OF THE NOI TSI

UTP Section 0: Equivalence and transitional provisions

The UTP NOI is equivalent to the EU NOI TSI in the meaning of Article 13 § 4 letter b) of the APTU UR (version of the NOI TSI indicated in section 0 of the UTP). Equivalence means that a vehicle complying with the technical requirements of the UTP should be considered as also complying with the technical requirements of the TSI and vice versa.

Article 6a of the ATMF UR states that "*If a requirement or a provision has been declared as equivalent in accordance with Article 13 of the APTU Uniform Rules related assessments and tests which have already been carried out and documented shall not be repeated*."

This means that the evidence (such as drawings, calculations, simulations, test reports, etc.), and the assessment of conformity on the basis of the evidence, should not generally be called into question. Contracting States should not therefore require reassessment of conformity of parameters that have been assessed according to either the TSI or the UTP for the purpose of accepting a vehicle for international traffic on their territory. These principles do not affect the rights and obligations of Contracting States to perform supervision and to investigate cases where the credibility of evidence or assessment results are called into question.

2.1 Introduction

Point 1.1.1: Scope related to rolling stock

This TSI applies to all rolling stock within the scope of the Annex to Regulation (EU) No 1302/2014 ('TSI LOC&PAS') and the Annex to Regulation (EU) No 321/2013 ('TSI WAG').

The UTP Noise applies to all rolling stock in the scope of the UTP LOC&PAS and the UTP WAG.

The NOI TSI does not apply to wagons designed to operate only on the 1 520 mm network.

Point 1.2: Geographical scope

The geographical scope of this TSI corresponds to the scopes defined in point 1.2 of LOC&PAS TSI and in point 1.2 of WAG TSI, each for their rolling stock (RST) concerned.

The geographical scope of the NOI TSI includes the entire European Union's rail system as set out in Annex I of Directive (EU) 2016/797. The reference to the LOC&PAS TSI and the WAG TSI makes sure that the same restrictions affecting the rolling stock are taken over by the NOI TSI.

COTIF applies to international rail traffic only. Therefore, only rolling stock used in international traffic on the territory of states that apply the ATMF UR falls within the scope of the UTP. COTIF does not therefore stipulate binding requirements for the purpose of authorising vehicles for domestic traffic or for other traffic that does not fall within the scope of COTIF or the UTP.

Rolling stock that existed before the first UTP NOI applied does not, in principle, have to comply with the noise emission requirements. However, the use of such rolling stock may be restricted on certain lines designated as "quieter routes" according to point 7.2.2 of the UTP.

2.2 Essential requirements

All basic parameters set out in this TSI shall be linked to at least one of the essential requirements as set out in Annex III of Directive (EU) 2016/797. Table 1 indicates the allocation.

The basic parameters harmonised in TSIs must be critical to interoperability and linked with at least one of the essential requirements set out in Annex III of Directive (EU) 2016/797. The basic parameters of the NOI TSI are all linked with the essential requirement 1.4.4.

Additional rolling stock measures are not needed in order to comply with neither Directive 2002/49/EC nor Directive 2003/10/EC.

The COTIF provisions equivalent to Annex III of Directive (EU) 2016/797 are set out in the UTP GEN-A.

Directive 2002/49/EC concerns the assessment and management of environmental noise. Directive 2003/10/EC regulates the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (noise). There are no COTIF provisions related to these subjects.

2.3 Characterisation of the subsystem

Point 4.2.3: Limits for pass-by noise

Measurements at speeds higher than or equal to 250 km/h shall also be made at the 'additional measurement position' with a height of 3,5 m above top of rail in accordance with the specification referenced in Appendix B, Index [1] and assessed against the applicable limit values of Table 4.

The distance from the centre of the track of the 'additional measurement position' is 7,5 m.

Table 4: Limit values for pass-by noise

Category of the rolling stock subsystem	$L_{pAeq,Tp\ (80\ km/h)}$ ***[dB]***	$L_{pAeq,Tp\ (250\ km/h)}$ ***[dB]***
*Wagons (normalised to APL=0,225)**	*83*	*n.a.*

The pass-by noise limit values set out in the NOI TSI assume certain conditions to guarantee that the noise emitted by the rolling stock under assessment is higher than the noise emitted by the track (e.g. roughness of the wheel, roughness of the rail, vertical and lateral track decay rates of the track). Considering the track, these conditions are not always found in daily operation. Therefore, it may be that e.g. wagons compliant with the pass-by noise requirements of the TSI (new or retrofitted with composite brake blocks) slightly exceed the pass-by noise limit values set out in the TSI in operation.

Point 4.2.3a: Friction elements for wheel tread brakes

[…]
The demonstration of conformity of brake blocks for freight wagons is described in point 6.1.2.1 of this TSI. Conformity of its brake blocks to that point does not exempt the unit under assessment from the requirements set out in point 4.2.3 and the demonstration of conformity set out in point 6.2.2.3.

The conformity to the pass-by noise limits set out in point 4.2.3 is performed at rolling stock subsystem level, either by means of a full pass-by noise test or by means of the simplified evaluation set out in point 6.2.3 of this TSI.

However, retrofitting of wagons as specified in second paragraph of 7.2.2 does not require a simplified evaluation.

Point 4.4: Operating rules

Requirements concerning the operating rules for the subsystem rolling stock are set out in point 4.4 of LOC&PAS TSI and in point 4.4 of WAG TSI.

The applicant has the obligation to add in the technical file operating rules and requirements which ensure that during operation the noise emission remains within the permitted range of limit values of the NOI TSI under the conditions in which these limit values were assessed.

Operating rules are generally outside the scope of COTIF. However, some high level responsibilities relevant to international traffic have been included in COTIF. Examples are Article 6 § 2 and Article 15 of the ATMF UR, which define responsibilities for railway undertakings for the operation of trains. In addition, the UTP concerning train composition and route compatibility checks (UTP TCRC) applies, which, from 1.1.2022 superseded the former Appendix K to the UTP LOC&PAS and Appendix I to the UTP WAG. The UTP TCRC also requires that compatibility with quieter routes be checked.

"Quieter routes" are lines where rail freight noise should be reduced and where specific rules apply to the operation of wagons on these routes. According to Appendix D of this UTP NOI, the Contracting States should provide information in advance on whether and where they have designated "quieter routes" on their territory. UTP NOI further prescribes that if quieter routes exist, *"the infrastructure manager shall make available to any rail transport undertaking operating on its network information concerning the location of quieter routes"*.

Point 4.5: Maintenance rules

Requirements concerning the maintenance rules for the subsystem rolling stock are set out in point 4.5 of LOC&PAS TSI and in point 4.5 of WAG TSI.

The OTIF rules concerning the maintenance of rolling stock are set out in point 4.5 of the UTP LOC&PAS and point 4.5 of the UTP WAG.

The applicant has the obligation to add in the technical file maintenance rules and requirements which ensure that the noise emission remains within the permitted range of limit values of the NOI TSI throughout the life cycle of the rolling stock under the conditions in which these limit values were assessed.

It is not required to repeat the assessment procedure as set out in chapter 6 of this TSI as part of the maintenance rules.

2.4 Interoperability constituents

Point 5.2.1: Friction element for wheel tread brakes

This interoperability constituent is only applicable to the 'rolling stock - freight wagons' subsystem.
A friction element for wheel tread brakes shall comply with the requirements set out in point 4.2.3.a.
Those requirements shall be assessed at IC level.

The friction element for wheel tread brakes of freight wagons is an Interoperability Constituent both in the TSI Noise (for acoustical aspects) and in the TSI WAG (for braking performance aspects).

Unless specifically exempted in this TSI or in the TSI WAG, the 'EC' declaration of conformity or suitability for use needs to attest compliance against the relevant requirements in both TSIs.

2.5 Conformity assessment and EC verification

The COTIF and EU provisions concerning conformity assessment have been harmonised. The objective is to ensure that assessments according to the TSI or the UTP are equally robust and that compliance with the technical requirements of one means technical compliance with both.

Point 6.1.2.1: Friction element for wheel tread brakes of freight wagons

A friction element for wheel tread brakes of freight wagons shall comply with the requirements set out in Appendix F.
[…]

The friction element for wheel tread brakes (i.e. brake block) generates brake forces by friction when engaged with the wheel tread. The requirements related to brake performed at interoperability constituent level are set out in point 4.2.4.3.5 of the TSI WAG.

Where applicable, brake blocks should be used taking into consideration the 'Usage guidelines for composite (LL) brake blocks' available on:

https://uic.org/IMG/pdf/uic_usage_guidelines_for_composite_brake_blocks_ll_not-updated.pdf

and 'Design rules for composite brake blocks (K)' available on:

https://uic.org/IMG/pdf/uic_design_rules_for_composite_brake_blocks_k_en_not-updated.pdf

In addition to the UTP Noise, the UTP WAG sets out requirements and assessment procedures applicable to friction elements for wheel tread brakes of freight wagons. The requirements of the UTPs WAG and Noise are complementary and must all be complied with. With regard to friction elements for wheel tread brakes, the UTP Noise covers the acoustic performance and the UTP WAG all other requirements. For further guidance, see also the application guide concerning the UTP WAG.

Point 6.2.2.1: Stationary noise

For the assessment of the main air compressor noise at the nearest measuring position i, the $L^{i}_{pAeq,T}$ indicator shall be used with T representative of one operating cycle as defined in the specification referenced in Appendix B, Index [1]. Only the train systems that are required for the air compressor to run under normal operating conditions shall be used for that purpose. The train systems which are not needed for the operation of the compressor may be switched off to prevent contribution to the noise measurement. The demonstration of conformity with the limit values shall be carried out under the conditions solely necessary for operation of the main air compressor at the lowest rpm.

During this assessment process it is not mandatory to switch on any system powered by the compressor (e.g. toilet, secondary suspension, pneumatic door step, intercirculation pneumatic doors).

The cycle as defined in the last paragraph of section 5.7 of the EN ISO 3095:2013 does not include the silent period between the shut-down of the compressor and the successive start-up.

When measuring the noise emitted by the main air compressor and the exhaust valve of the air dryer the 'nearest position' of the mesh set out in clause 5.5.1.1 of EN ISO 3095:2013 is assumed to be the noisiest one. In case of doubt it may be necessary to measure more than one position in the mesh e.g. on both sides of the rolling stock.

Point 6.2.2.2: Starting noise

In addition the noise shall be measured at the same distance from the centre of the track and the same height above top of rail as set out in point 4.2.2. The 'averaged level method' and the 'maximum level method' in accordance with the specification referenced in Appendix B, Index [1] shall apply and the train shall accelerate from standstill up to 40 km/h and then maintain the speed. The measured values are not assessed against any limit value and shall be recorded in the technical file and communicated to the Agency.

The positions alongside the vehicle should be those set out in point 7.5 of EN ISO 3095 for both the 'averaged level method' and the 'maximum level method'.

Point 6.2.2.3.2: Procedure

The tests shall be carried out in accordance with the specification referenced in Appendix B, Index [1]

If the unit under assessment is a locomotive, it is allowed to carry out the measurements at all test speeds with a tractive effort equal to at least two thirds of the maximum available value at maximum speed. This value can be deduced from calculated tractive effort versus speed curves.

Point 6.2.3: Simplified evaluation

Instead of the test procedures as set out in point 6.2.2, it is permitted to substitute some or all of the tests by a simplified evaluation. The simplified evaluation consists of acoustically comparing the unit under assessment to an existing type (further referred to as the reference type) with documented noise characteristics.

Before the simplified evaluation method can be applied, it should be established that the unit under assessment and the reference type are comparable in terms of design, operation and acoustic behaviour.

'Documented noise characteristics' means that the total sound emission as well as the acoustic behaviour of the single components that are contributing to it should be known and listed.

It should be explicitly declared whether a modification of one component has an impact on other noise sources.

The simplified evaluation may be used for each of the applicable basic parameters 'stationary noise', 'starting noise', 'pass-by noise' and 'driver's cab interior noise' autonomously and shall consist of providing evidence that the effects of the differences of the unit under assessment do not result in exceeding the limit values set out in point 4.2.

For the units under simplified evaluation, the proof of conformity shall include a detailed description of the noise relevant changes compared to the reference type. On the basis of that description, a simplified evaluation shall be performed. The estimated noise values shall include the uncertainties of the applied evaluation method. The simplified evaluation can either be a calculation and/or simplified measurement.

Evidence should be robust and verifiable. The analysis should be repeatable with equal results. Calculations should be described in detail to enable the notified body to assess the quality of the calculation process. Assumptions should be made conservatively.

Additional guidance on the application of simplified evaluation methods is available in the deliverable 1.1 of the EU project ACOUTRAIN (contract n° FP7 – 284877) 'Clarification of the simplified method in the partial revision of the TSI' (ref. ACT-WP1-D-SNC-004-04 dated 10/10/2012). This document covers the following aspects:

- Certified tools/calculation of uncertainties
- Validation strategy
- Definition of representative operating conditions (ROC)
- Additional guidance to apply modifications related to:
  - Number of axles
  - Unit maximum speed
  - Type of the wheels
  - Braking system (that does not influence anything else, but the acoustic roughness of the wheel)
  - Composition of the unit (stationary noise case)
  - Composition of the unit (pass-by noise case)
  - Selection of the noisiest configuration of different single vehicles
  - Equipment configuration on board the vehicle (stationary/pass-by/starting noise cases)

In case of a wagon whose parameters remain, compared to the reference type, within the permitted range of Table 7 it is deemed without further verification that the unit complies with the limit values on pass-by noise as set out in point 4.2.3.

If e.g. a wagon under assessment is equipped with brake blocks listed in appendix G of this TSI or brake blocks holding an EC declaration of conformity against this TSI, it is assumed without further verification that such blocks do not result in higher pass-by noise emissions.

2.6 Implementation

Point 7.2.2: Additional provisions for the application of this TSI to existing wagons

The restriction of the operation set out in Article 5a shall not apply to wagons mostly operated on lines with a gradient of more than 40 ‰, wagons with a maximum operating speed higher than 120 km/h, wagons with a maximum axle load higher than 22,5 t, wagons exclusively operated for infrastructure works and wagons used in rescue trains.

The text quoted from the NOI TSI is not identical to the text in the UTP; the UTP reads:

"Unless indicated otherwise in a particular implementing rule in section 7.4, from 8 December 2024, wagons within the scope of UTP WAG which are not covered by point 7.2.2.2 of this UTP shall not be operated on the quieter routes. However, this shall not apply to wagons mostly operated on lines with a gradient of more than 40 ‰, wagons with a maximum operating speed higher than 120 km/h, wagons with a maximum axle load higher than 22.5 t, wagons exclusively operated for infrastructure works and wagons used in rescue trains".

Wagons exclusively operated for infrastructure works may refer to freight wagons or any hauled vehicle, part of an on-track machine or not, exclusively operated for infrastructure works.

If a wagon is being equipped with either friction elements for wheel tread brakes covered by an EC Declaration of Conformity in accordance with this TSI or with friction elements for wheel tread brakes listed in Appendix G and no noise sources are added to the wagon, then it shall be assumed that the requirements of point 4.2.3 are met without further testing.

Without further testing means also without simplified evaluation. The reason for this is to facilitate the retrofitting of existing freight wagons fitted with cast iron wheel tread brakes. Therefore, this possibility is limited to existing freight wagons already in operation.

2.7 Appendices of the NOI TSI

Appendix C: Assessment of the rolling stock subsystem

The table in Appendix C 'Assessment of the rolling stock subsystem' is to be understood as follows: during the application of the assessment procedures of point 6.2.2 only the type test shall be carried out.

If the simplified evaluation in point 6.2.3 is applied the design review has to be done based on a type test of the reference unit.

Appendix D: Quieter routes

The term *Unique section ID* as used in the template table annexed to Appendix D to NOI TSI is referred to as *Line identification* in the UTP Noise.

'In accordance with Article 5c (1) the Member States shall provide the Agency with a list of quieter routes and ensure that the infrastructure managers identify them in the RINF (application) as set out in Commission Implementing Decision (EU) 2019/777 (RINF). The list shall contain at least the following information:

- *Start and end points of the quieter routes and their corresponding sections, using geographical code location as defined in the register set out in RINF. If one of those points is at the border of the Member State, it shall be reflected.*
- *Identification of the sections making up the quieter route'*

The list shall be provided using the template below:

Quieter route	Sections in the route	Unique section ID	Quieter route starts/finishes at the border of the Member State
Point A - Point E	Point A - Point B	201	Yes POINT E (Country Y)
	Point B - Point C	202	
	Point C - Point D	203	
	Point D - Point E	204	
Point F - Point I	Point F - Point G	501	No
	Point G - Point H	502	
	Point H - Point I	503	

The text quoted from the NOI TSI is not identical to the text in the UTP; the UTP reads:

"Contracting States may designate some or all lines open to international traffic as quieter routes in the meaning of this UTP in accordance with the rules applicable in the state concerned.

In case all lines open to international traffic are designated as quieter routes this shall be indicated as a particular implementing rule in chapter 7.4 of this UTP, which shall indicate whether the rule is permanent or temporary and from which date it will apply. For any temporary rule it shall be indicated when it will cease to apply.

If only a part of the network open to international traffic is designated as quieter routes, the Contracting State shall ensure that a precise list of quieter routes open for international traffic is publicly available.

The list shall contain at least the start and end points of the quieter routes and their corresponding sections. If one of these points is at the border, it shall be reflected. […]".

The list must be provided using the template indicated in the UTP.

All freight trains passing a certain point on the considered route should be taken into account regardless of direction of travel. It is allowed to combine sections of different lines which are side by side for the application of the threshold of 12 freight trains during night time.

The UTP NOI permits (non-EU) Contracting States to designate quieter routes on their networks, or not, depending on their national noise policy. These quieter routes may include all or some lines open to international traffic. It is also permitted to have no quieter routes at all.

If all the lines open to international traffic in a Contracting State are designated as quieter routes, this should be included in point 7.4 of the UTP.

If only some lines open to international traffic are designated as quieter routes, a precise list should be publicly available. In this regard, the Member States of the European Union have published their quieter routes through the Register of Infrastructure (RINF). Corresponding information is also available on ERA's website https://www.era.europa.eu/domains/technical-specifications-interoperability/noise-tsi_en.

Lists, maps and other relevant information the Contracting States notify to the Secretary General will be published on OTIF's website.

Appendix E: historic composite brake blocks

E.1 Historic composite brake blocks for international use

Existing wagons equipped with the brake blocks listed in the table are allowed to be used on the quieter routes within their area of use, until the relevant date set out in Appendix N of UIC 541-4.

Manufacturer/name of product	*Designation/type of block*	*Type of friction coefficient*
Valeo/Hersot *Wabco/Cobra*	*693* *W554*	*K*
Ferodo	*I/B 436*	*K*
Abex	*229*	*K* *(Fe — sintered)*
Jurid	*738*	*K* *(Fe — sintered)*

The blocks listed in table under E.1 are identified both by its designation and type of friction coefficient which in some cases further specify its composition. When the composition is specified (e.g., Fe - sintered), then other compositions are not allowed.

Further definition on mechanical, physical and chemical features of the blocks is available in point 1.2.5 of UIC 540-1.

Brake blocks that are certified by UIC for use in international traffic are listed in Appendix M to UIC Leaflet 541-4. See https://uic.org/IMG/pdf/e541x4_appendix_m_03-18.pdf for the version of 10 September 2024.

Appendix F: Assessment of acoustic performance of a brake block

Additional guidance is available in the link below:

https://www.dzsf.bund.de/SharedDocs/Textbausteine/DZSF/Forschungsberichte/Forschungsbericht_2022-17.html?nn=2208196

3. APPLICABLE SPECIFICATIONS AND STANDARDS

This application guide contains no voluntary standards.