

| TITLE | |
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| USE OF SIMPLIFIED EVALUATION TO DEMONSTRATE COMPLIANCE WITH TSI NOI | |
| ORIGINATOR | SUBJECT RELATED TO |
| LLOYD'S REGISTER VERIFICATION LTD | TSI NOI (1304/2014) |
| DESCRIPTION AND BACKGROUND EXPLANATION | |
| <p>In TSI NOI (Commission Regulation (EU) No 1304/2014) additional noise measurements are required compared to previous versions of the TSI NOI (2006/66/EC and 2011/229/EU) and the TSI HS RST (2008/232/EC). These additional measurements concern the stationary and the starting noise:</p> <p><i>Section 4.2.1 Limits for stationary noise:</i></p> <p><i>The limit values for the following sound pressure levels under normal vehicle conditions concerning the stationary noise allocated to the categories of the rolling stock subsystem are set out in Table 2:</i></p> <p><i>(b) the A-weighted equivalent continuous sound pressure level at the nearest measuring position i considering the main air compressor ($L_{pAeq,T}^i$); and</i></p> <p><i>(c) the AF-weighted sound pressure level at the nearest measuring position i considering impulsive noise of the exhaust valve of the air dryer (L_{pAFmax}^i).</i></p> <p><i>Section 6.2.2.2 Starting noise:</i></p> <p><i>In addition the noise shall be measured at a distance of 7,5 m from the centre of the track and a height of 1,2 m above top of rail. The 'averaged level method' and the 'maximum level method' in accordance with Section 7.6 and 7.5 respectively of EN ISO 3095:2013 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.</i></p> <p>If the unit under assessment has to comply with TSI NOI 1304/2014 and a suitable reference type is available, the TSI NOI gives the possibility to use a simplified evaluation. TSI NOI section 6.2.3 states:</p> <p><i>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. 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 Section 4.2.</i></p> | |

If the simplified evaluation is applied for pass-by noise, the reference-type shall comply with at least one of the following:

- *Chapter 4 and for which the pass-by noise results are marked ‘comparable’*
- *Chapter 4 of Decision 2011/229/EU and for which the pass-by noise results are marked ‘comparable’*
- *Chapter 4 of Decision 2006/66/EC*
- *Chapter 4 of Decision 2008/232/EC.*

If the reference type complies with chapter 4 of Decision 2011/229/EU, 2006/66/EC or 2008/232/EC, the simplified method can be used to demonstrate compliance with the additional requirements concerning the stationary noise and starting noise providing appropriate measurements with the reference type are available.

RFU PROPOSAL

Instead of the test procedures as set out in TSI NOI 1304/2014 section 6.2.2, it is permitted to substitute some or all of the tests by a simplified evaluation. 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.

In the situation that the reference type complies with a previous version of the TSI NOI (Decision 2011/229/EU or 2006/66/EC) or the TSI HS RST (Decision 2008/232/EC) and that the unit under assessment must comply with TSI NOI 1304/2014, providing appropriate measurements with the reference type are available, the simplified evaluation method can be used to assess all requirements set out TSI NOI 1304/2014, except the measurement defined in the second paragraph of section 6.2.2.2.

In case that the simplified evaluation was used, the result must be classified “not comparable”.

DATE OF AGREEMENT AT NB RAIL PLENARY MEETING

PM 46, 24/02/216