

Submitted by the representative from
Netherlands

Informal document **WP.29-179-06**
179th WP.29, 12-14 November 2019)
Agenda item 4.14.2

**Proposal for amendments to ECE/TRANS/WP.29/2019/118
(Proposal for an amendment to Annex 4 to the Consolidated
Resolution on the Construction of Vehicles (R.E.3))**

Submitted by the representative from Netherlands

The text reproduced below was prepared by the representative from Netherlands containing proposed amendments to working document ECE/TRANS/WP.29/2019/118 (Proposal for an amendment to Annex 4 to the Consolidated Resolution on the Construction of Vehicles (R.E.3)). This proposal adds reference to ISO standard to perform fuel quality measurement for certain parameters in section 7.2 and corrects an omission in section 7.3. Modifications are shown in bold and underlined text for easier identification. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) for consideration at their November 2019 sessions.

Amendment to Annex 4 to the Consolidated Resolution on Construction of Vehicles (R.E.3)

I. Proposals

Annex 4, Section 7.2, amend to read:

"7.2. Volatility Classes for Unleaded Gasoline

7.2.1. Volatility Classes for Unleaded Gasoline (R83.03, R83.05, R83.06, R83.07 - E5 gasoline blend)

<i>Class</i> ^(*)	<i>A</i>	<i>B</i>	<i>C/C1</i>	<i>D/D1</i>	<i>E/E1</i>	<i>F/F1</i>	<i>Test Method</i>
Vapour pressure (kPa)	45 - 60	45 - 70	50 - 80	60 - 90	65 - 95	70 - 100	<u>EN ISO 3405</u>
E70 (%) ¹	20 - 48	20 - 48	22 - 50	22 - 50	22 - 50	22 - 50	
E100 (%) ¹	46 - 71	46 - 71	46 - 71	46 - 71	46 - 71	46 - 71	
E150 (% min) ¹	75	75	75	75	75	75	
Final boiling point (°C max) ¹	210	210	210	210	210	210	
T10 (°C) ¹	65	60	55	50	45	45	
T50 (°C) ¹	77 - 100	77 - 100	75 - 100	70 - 100	65 - 100	65 - 100	
T90 (°C) ¹	130 - 175	130 - 175	130 - 175	130 - 175	130 - 175	130 - 175	
Distillation residue (% V/V, max)	2	2	2	2	2	2	
Vapour Lock Index (VLI) (10 VP + 7 E70) (index max)	-	-	C	D	E	F	
Vapour Lock Index (VLI) (10 VP + 7 E70) (index max)			C1 1 050	D1 1 150	E1 1 200	F1 1 250	=

* "Class" is based on the minimum expected ambient temperature of the market and will vary by season. Implementing country to choose volatility class or classes appropriate to their yearly ambient temperature conditions.

¹ E-values or T-values as alternatives.

7.2.2. Volatility Classes for Unleaded Gasoline (R83.07 - E10 gasoline blend)

<i>Class</i> ^(*)	<i>A</i>	<i>B</i>	<i>C/C1</i>	<i>D/D1</i>	<i>E/E1</i>	<i>F/F1</i>	<i>Test Method</i>
Vapour pressure (kPa)	45 - 60	45 - 70	50 - 80	60 - 90	65 - 95	70 - 100	<u>EN ISO 3405</u>
E70 (%) ¹	22 - 50	22 - 50	24 - 52	24 - 52	24 - 52	24 - 52	
E100 (%) ¹	46 - 72	46 - 72	46 - 72	46 - 72	46 - 72	46 - 72	
E150 (% min) ¹	75	75	75	75	75	75	
Final boiling point (°C max) ¹	210	210	210	210	210	210	
T10 (°C) ¹	65	60	55	50	45	45	
T50 (°C) ¹	65 - 100	65 - 100	65 - 100	65 - 100	65 - 100	65 - 100	
T90 (°C) ¹	130 - 175	130 - 175	130 - 175	130 - 175	130 - 175	130 - 175	
Distillation residue (% V/V max)	2	2	2	2	2	2	
Vapour Lock Index (VLI) (10 VP + 7 E70) (index max)	-	-	C	D	E	F	
Vapour Lock Index (VLI) (10 VP + 7 E70) (index max)			C1 1 064	D1 1 164	E1 1 214	F1 1 264	=

* "Class" is based on the minimum expected ambient temperature of the market and will vary by season. Implementing country to choose volatility class or classes appropriate to their yearly ambient temperature conditions.

¹ E-values or T-values as alternatives.

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Annex 4, Section 7.3, the first row of the table, 'Diesel – on-road vehicles', amend to read:

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<u>Sulphur [mg/kg]</u>	≤ 500	≤ 350	≤ 50	≤ 10	≤ 10	EN ISO 20846 EN ISO 20884
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II. Justification

This document submitted by Netherlands proposes amendments to document ECE/TRANS/WP.29/2019/118 for the following reasons:

1. To refer to the applicable test method (EN ISO 3405) in a new column in the gasoline volatility tables in sections 7.2.1 and 7.2.2.
2. To clarify that the first row in the table 'Diesel – on-road vehicles' refers to 'Sulphur [mg/kg]'.