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NOTE

From:	General Secretariat of the Council
To:	Permanent Representatives Committee
No. prev. doc.:	13640/17
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Subject:	Proposal for a Regulation of the European Parliament and of the Council on the monitoring and reporting of CO ₂ emissions from and fuel consumption of new heavy-duty vehicles - Mandate for negotiations with the European Parliament

I. INTRODUCTION

1. On 1 June 2017 the Commission submitted a proposal for a Regulation on the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles.
2. The proposal aims at establishing a mandatory EU wide system for monitoring and reporting of CO₂ emissions and fuel consumption from heavy duty vehicles (HDVs).
3. The proposal has been discussed at a number of meetings of the Environment Working Party (WPE), latest on 4 December 2017. Following these discussions, the Presidency has proposed the consolidated revised compromise text set out in the Annex to this note.

4. In the European Parliament, Damiano ZOFFOLI (S&D, IT) was appointed rapporteur for the proposal on behalf of the ENVI Committee. The Committee vote on a negotiation position on the proposal is scheduled for 24-25 January 2018 in view of plenary approval early February.

II. STATE OF PLAY

5. Delegations have welcomed the proposal, also as an important step towards setting CO2 emissions standards for heavy duty vehicles. There is agreement on the approach suggested by the Commission. Discussions have primarily focused on:
- clarifying certain parts of the text, in particular the link between the scope of the proposed regulation and the Certification Regulation;
 - the possible addition of data to be monitored and reported by manufacturers;
 - to which extent the data monitored and reported by manufacturers should be made publicly available, in particular in relation to data on the aerodynamics of the vehicle (the so called "air drag value") which is an important element determining the fuel efficiency of the vehicle; and
 - including a derogation for "small manufacturers" from the monitoring and reporting obligations in order to reduce their administrative burdens. Given the vehicle categories covered so far by the Certification Regulation, currently only large manufacturers will be subject to the monitoring and reporting obligations of the proposed regulation. However, once manufacturers of other vehicle categories will be subject to these obligations, also smaller manufacturers will be affected.

6. The compromise suggested by the Presidency aims at addressing the issues raised by delegations in a balanced way, notably by:
- clarifying that only manufacturers of already certified vehicle categories and/or groups are subject to the monitoring and reporting obligations. This is done through including a new table in Annex I, part B which will set out the starting years for monitoring and reporting for each vehicle category/group. As the remaining vehicle categories/groups are certified, the Commission will amend that Annex by including the respective starting years. The Commission has been given a timeframe of seven years to set out the starting years for all vehicle categories/groups covered by the regulation;
 - adding CO2 emissions and fuel consumption of the engine in the list of data to be reported by manufacturers (Annex I, Part B point 2). This data is already part of the information to be provided by manufacturers in the context of the certification process;
 - making the "air drag value" publicly available in a range format (Article 6 (1)). The different ranges are defined in such a way that they will provide sufficiently accurate information on the aerodynamic performance of the vehicle to potential buyers while taking adequately into account considerations on fair competition.

As regards the issue of the "small manufacturers", the Presidency proposes to take on board the suggestion made by some delegations and supported by the Commission to consider derogations in the framework of the Certification Regulation and not in this regulation on the monitoring and reporting. The assessment is that the substantial burdens and costs for manufacturers are rather linked to the certification process than to the monitoring and reporting. The Commission has agreed to make a statement in Coreper on the issue.

In addition to the changes made following the discussions at the Working Party, a number of editorial changes have been made to the text.

7. A large number of delegations are ready to accept the Presidency compromise suggestions as tabled. The remaining delegations have scrutiny reservations on the Presidency compromise, with a number of delegations stating that they are favourably inclined towards the suggestions contained therein.

III. CONCLUSION

The Permanent Representatives Committee is invited to agree on a mandate for negotiations with the European Parliament as set out in the Annex to this note¹.

¹ New text compared to the previous Presidency compromise text contained in document 13640/17 is highlighted in **bold and underlined**, deletions are marked by [...]. Previous changes to the initial Commission proposal are indicated as underlined.

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee²,

Having regard to the opinion of the Committee of the Regions³,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) A binding target of at least a 40 % domestic reduction in economy-wide greenhouse gas emissions by 2030 compared to 1990 was endorsed in the Conclusions of the European Council of 23-24 October 2014 on the 2030 climate and energy policy framework, and this was reconfirmed at its meeting in March 2016.

² OJ C , , p. .

³ OJ C , , p. .

- (2) The European Council conclusions of October 2014 provided that the target should be delivered collectively by the Union in the most cost-effective manner possible, with the reductions in the Emissions Trading System (ETS) and non-ETS sectors amounting to 43 % and 30 % respectively by 2030 compared to 2005. All Member States should participate in that effort and all sectors of the economy should contribute to achieving those emission reductions, including transport.
- (3) The Commission's 2016 European Strategy for low-emission mobility⁴ set the objective of at least a 60 % reduction in emissions from transport by 2050 compared to 1990 levels.
- (4) Greenhouse gas emissions from lorries, buses and coaches, i.e. heavy-duty vehicles, currently represent around a quarter of road transport emissions in the Union and are expected to increase further by 2030. Effective measures to curb emissions from heavy-duty vehicles need to be introduced in order to contribute to the necessary emission reductions in the transport sector.
- (5) In its 2014 Communication on a Strategy for reducing Heavy-Duty Vehicles' fuel consumption and CO₂ emissions⁵, the Commission recognised that a prerequisite to introducing such measures is a regulated procedure for the determination of CO₂ emissions and fuel consumption.
- (6) Regulation (EC) No 595/2009 of the European Parliament and the Council⁶ provides the framework for the setting up of such a regulated procedure. The measurements will provide robust and comparable CO₂ emissions and fuel consumption data for each vehicle for a significant part of the heavy-duty vehicle fleet in the Union. The purchaser of a specific vehicle and the respective Member State of registration will have access to that information, partially closing the knowledge gap.

⁴ COM(2016) 501 final.

⁵ COM(2014) 285 final.

⁶ Regulation (EC) No 595/2009 of the European Parliament and of the Council of 18 June 2009 on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC (OJ L 188, 18.7.2009, p. 1).

- (7) Information on a vehicle's performance in terms of CO₂ emissions and fuel consumption should be made publicly available to enable all vehicle operators to take well-informed purchasing decisions. All vehicle manufacturers will be able to compare their vehicles' performance with those of other makes. This will increase the incentives for innovation and therefore increase competitiveness. That information will also provide policy makers at Union and Member State level with a sound basis for developing policies to promote the uptake of more energy-efficient vehicles.
- (7a) It is therefore appropriate that vehicle manufacturers monitor and report to the Commission the CO₂ emissions and fuel consumption values determined for each new heavy-duty vehicle pursuant to Commission Regulation (EU) [.../...] ⁷ [*Opoce to include correct reference*] [...].
- (8) In order to acquire a complete knowledge on the configuration of the heavy-duty vehicle fleet in the Union, its development over time and potential impact on CO₂ emissions, it is appropriate that the competent authorities of the Member States [...] monitor and report to the Commission data on the registration of all new heavy-duty vehicles and all new trailers, including data on the powertrains as well as the relevant bodywork.

⁷ Commission Regulation (EU) [.../...] implementing Regulation (EU) No 595/2009 of the European Parliament and of the Council as regards the determination of CO₂ emissions and fuel consumption of heavy-duty vehicles and amending Directive 2007/46/EC of the European Parliament and of the Council and Commission Regulation (EU) No 582/2011 (OJ L.....,....).

- (9) **The availability of data on CO₂ emissions and fuel consumption for the different vehicle categories depends on when the categories will be covered by Commission Regulation (EU) [.../...]. In order to provide clarity and legal certainty concerning monitoring and reporting obligations for manufacturers, this Regulation should set out the starting years for monitoring and reporting for each vehicle category falling within its scope.** Data [...] will be available for certain new heavy-duty vehicles that are registered in [2019]. Starting from that [...] **year** manufacturers should be required to [...] **monitor and report** the technical data relating to those vehicles. **For other vehicle categories and vehicle groups the data will only become available at a later date. A reasonable timeframe should be set for determining the starting years for the monitoring and reporting of data for those vehicle categories and vehicle groups. Given the technical complexity of developing the procedures for determining the CO₂ emissions and fuel consumption of the remaining vehicle categories and vehicle groups, the timeframe should be set at seven years from the entry into force of this Regulation.**
- (10) **It is in the public interest that** technical data essential for determining the CO₂ emissions and fuel consumption performance of a vehicle [...] be publicly available to increase the transparency of the vehicle specifications and the related performance, and to foster competition among manufacturers. [...] **Data** that are sensitive on the grounds of personal data protection and fair competition should not be published. [...]. **Certain data related to the aerodynamic performance of vehicles should be made available to the public in a range format in order to take account of considerations on fair competition.** The data **reported** should be made available to the public in an easily accessible manner.
- (11) It is important to ensure that the data monitored and reported is robust and reliable. The Commission should therefore have the means to verify and, where necessary, correct the final data. Parameters allowing the data to be adequately traced and verified should therefore also be provided for in the monitoring requirements.

- (12) Based on the experience gained from the monitoring and reporting of data on CO₂ emissions pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council⁸ for new passenger cars and Regulation (EU) No 510/2011 of the European Parliament and of the Council⁹ for new light commercial vehicles, it is appropriate to confer on the European Environment Agency the responsibility for the exchange of the data with the competent authorities of the Member States and manufacturers, as well as for the management of the final database on behalf of the Commission. It is also appropriate to align as far as possible the monitoring and reporting procedures for heavy-duty vehicles with those already existing for light-duty vehicles.
- (13) In order to ensure uniform conditions for the implementation of the provisions of this Regulation on the verification and correction of the monitored data, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council¹⁰.

⁸ Regulation (EC) No 443/2009 of 23 April 2009 of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles (OJ L 140, 5.2.2009, p.1).

⁹ Regulation (EU) No 510/2011 of 11 May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO₂ emissions from light-duty vehicles (OJ L 145, 31.5.2011, p.1).

¹⁰ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

- (14) In order to ensure that the data requirements and the monitoring and reporting procedure remain relevant over time for assessing the heavy-duty vehicle fleet's contribution to CO₂ emissions, as well as to ensure the availability of data on new and advanced CO₂ reducing technologies, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of amending the data requirements, **adding the starting years for monitoring and reporting of the vehicle categories covered** and the monitoring and reporting procedure laid down in the Annexes. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement **of 13 April 2016** on Better Law-Making [...]. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.
- (15) Since the objective of this Regulation, namely the monitoring and reporting of CO₂ emissions and fuel consumption from new heavy-duty vehicles in the Union, cannot be **sufficiently** achieved by the Member States but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective,

HAVE ADOPTED THIS REGULATION:

Article 1

Subject matter

This Regulation lays down the requirements for the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles registered in the European Union.

Article 2

Scope

This Regulation shall apply to the monitoring and reporting by Member States and manufacturers of heavy duty vehicles of data on new vehicles.

It shall apply with regard to the following vehicle categories:

- (a) heavy-duty vehicles of categories M1, M2, N1 and N2 with a reference mass exceeding 2 610 kg not falling within the scope of Regulation (EC) No 715/2007 of the European Parliament and of the Council¹¹, and all vehicles of categories M3 and N3;
- (b) vehicles of categories O3 and O4.

For the purposes of this Regulation, these vehicles are referred to as heavy duty vehicles.

Article 3

Definitions

For the purposes of this Regulation, the definitions set out in Directive 2007/46/EC of the European Parliament and of the Council¹² and Regulation (EC) No 595/2009 of the European Parliament and of the Council shall apply.

¹¹ Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 171, 29.6.2007, p. 1).

¹² Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) (OJ L 263, 9.10.2007, p. 1).

Article 4

Monitoring and reporting by Member States

1. Starting from 1 January 2019, and for each subsequent calendar year, Member States shall monitor the data specified in Part A of Annex I relating to new vehicles registered for the first time in the Union.

By 28 February each year, starting in [2020], the competent authorities of the Member States shall [...] report that data [...] to the Commission in accordance with the reporting procedure set out in Annex II.

Data relating to new vehicles that were registered previously outside the Union shall not be monitored and reported, unless that registration was made less than three months before registration in the Union.

[...]

2. The competent authorities responsible for the [...] monitoring and reporting of the data in accordance with this Regulation shall be those designated by the Member States in accordance with Article 8(7) of Regulation (EC) No 443/2009.

Article 5

Monitoring and reporting by manufacturers

1. [...] **In accordance with the starting years set out in point 1 of Part B of Annex I, [...]** **manufacturers of heavy duty vehicles shall monitor, on a calendar year basis, the data specified in point 2 of Part B of Annex I, for each new heavy-duty vehicle.**

By 28 February each year [...], **starting from the years set out in point 1 of Part B of Annex I, manufacturers of heavy-duty vehicles shall [...] report that data for each new heavy-duty vehicle with a date of simulation falling within the preceding calendar year** [...] to the Commission in accordance with the reporting procedure set out in Annex II.

The date of [...] **simulation** shall be the date [...] **reported in accordance with data entry 70 in point 2 of Part B of Annex I to this Regulation.**

2. Manufacturers shall appoint a contact point for the purpose of reporting data in accordance with this Regulation.

Article 6

Central Register for data on heavy-duty vehicles

1. The Commission shall keep a central register for the data reported in accordance with Articles 4 and 5.

The register shall be publicly available with the exception of **data entry (a) in Part A of Annex I and** data entries 1, 24, 25, 32, 33, 39 and 40 specified in **point 2 of** Part B of Annex I. **With regard to data entry 23 specified in point 2 of Part B of Annex I, the value shall be made publicly available in a range format as defined in point 3 of Part B of Annex I.**

2. The register shall be managed by the European Environment Agency (EEA) on behalf of the Commission.

Article 7

Data quality

1. The competent authorities and manufacturers shall be responsible for the correctness and quality of the data they report pursuant to Articles 4 and 5. They shall inform the Commission of any errors detected in the data reported without delay.
2. The Commission may carry out its own verification of the quality of the data reported pursuant to Articles 4 and 5.
3. Where the Commission is informed of errors in the data or finds, pursuant to its own verification, discrepancies in the dataset, it shall, where appropriate, take the necessary measures to correct the data published in the Central Register referred to in Article 6.

Article 8

Report

1. The Commission shall, as part of its annual report under [Article 29 of the proposed regulation on the Energy Union Governance¹³], publish its analysis of the data transmitted by Member States and manufacturers for the preceding calendar year.
2. The analysis shall indicate, as a minimum, the performance of the heavy-duty vehicle fleet of the Union as well as that of each manufacturer in terms of the average fuel consumption and CO₂ emissions **for each mission profile, load and fuel combination**. It shall also, where available, take into account data on the uptake of new and advanced CO₂ reducing technologies.
3. The Commission shall prepare the analysis with the support of the EEA.

Article 9

Conferral of implementing powers

The Commission may, by means of implementing acts, determine the verification and correction measures referred to in paragraphs 2 and 3 of Article 7. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 11.

Article 10

Delegation of powers

1. The Commission is empowered to adopt delegated acts in accordance with Article 12 with a view to amending Annex I for the purpose of updating or adjusting the data requirements specified therein where this is deemed necessary in order to provide for a thorough analysis in accordance with Article 8.

1a. The Commission is empowered to adopt delegated acts in accordance with Article 12 with a view to amending Annex I for the purpose of completing the starting years in point 1 of Part B. Those delegated acts shall be adopted no later than [7 years after entry into force of this Regulation].

¹³ **Provision to be revised depending on the timing of the adoption of the proposal on the governance of the Energy Union.**

2. The Commission is empowered to adopt delegated acts in accordance with Article 12 with a view to amending Annex II for the purpose of adjusting the monitoring and reporting procedure set out therein in order to take into account the experience gained from the application of this Regulation.

Article 11

Committee procedure

1. The Commission shall be assisted by the Climate Change Committee established by [...] **Regulation (EU) 525/2013 of the European Parliament and of the Council**¹⁴. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Article 12

Exercise of delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Article 10 shall be conferred on the Commission for an indeterminate period of time from [the date of entering into force of this Regulation].
3. The delegation of power referred to in Article 10 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

¹⁴ [...] **Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC (OJ L 165, 18.6.2013, p. 13).**

4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement **of 13 April 2016** on Better Law-Making [...].
5. As soon as it adopts a delegated act the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Article 10 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Article 13

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament

For the Council

The President

The President

ANNEXES

to the proposal for a

Regulation of the European Parliament and of the Council

on the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles

Annex I

Data to be monitored and reported

PART A: DATA TO BE MONITORED AND REPORTED BY MEMBER STATES:

- (a) vehicle identification numbers of all new vehicles as referred to in Article 2(a) and (b) that are registered in the Member State territory;
- (b) manufacturer name;
- (c) make (trade name of manufacturer);
- (d) the code for the bodywork as specified in entry 38 of the certificate of conformity, where available;
- (e) in the case of the vehicles referred to in Article 2(a), the information on the powerplant specified in entries 23, 23.1 and 26 of the certificate of conformity.

PART B: DATA TO BE MONITORED AND REPORTED BY MANUFACTURERS OF HEAVY-DUTY VEHICLES

1. Starting years for the monitoring and reporting of data for the vehicle categories set out in Article 2(a) and (b):

<u>Vehicle category</u>	<u>Vehicle group for vehicle category (as referred to in Annex I to Commission Regulation (EU) [...])</u>	<u>Starting year Monitoring</u>	<u>Starting year Reporting</u>
<u>N1</u>	-	-	-
<u>N2</u>	<u>1 and 2</u>	<u>2020</u>	<u>2021</u>
<u>N3</u>	<u>3</u>	<u>2020</u>	<u>2021</u>
	<u>4,5,9 and 10</u>	<u>2019</u>	<u>2020</u>
	<u>11,12 and 16</u>	<u>2020</u>	<u>2021</u>
<u>M1</u>	-	-	-
<u>M2</u>	-	-	-
<u>M3</u>	-	-	-
<u>O3</u>	-	-	-
<u>O4</u>	-	-	-

2. Data to be monitored and reported:

No	Monitoring parameters	Source [...] <u>Part I of ANNEX IV to Commission Regulation (EU) [.../...], unless otherwise specified</u>	Description
1	vehicle identification number (VIN)	1.1.3	Vehicle and component identification
2	engine certification number	1.2.2	
3	CdxA certification number (if applicable)	1.8.3	
4	transmission certification number	1.3.2	
5	axle certification number	1.6.2	
6	tyre certification number, axle 1	1.9.2	
7	tyre certification number, axle 2	1.9.6	
8	tyre certification number, axle 3	1.9.10	
9	tyre certification number, axle 4	1.9.14	
10	vehicle category (<u>N1, N2, N3, M1, M2, M3</u>)	1.1.4	Vehicle classification
11	axle configuration	1.1.5	
12	maximum gross vehicle weight (<u>t</u>)	1.1.6	
13	vehicle group	1.1.7	
14	[...] name <u>and address of manufacturer</u>	1.1.1	Vehicle and chassis specification
15	make (trade name of manufacturer)	1.1.7 Part II of <u>Annex IV to Commission Regulation (EU) [...]</u>	
16	corrected actual curb mass (<u>kg</u>)	1.1.8	

17	engine rated power (<u>kW</u>)	<u>1.2.3</u>	Main engine specifications
18	engine idling speed (<u>1/min</u>)	<u>1.2.4</u>	
19	engine rated speed (<u>1/min</u>)	<u>1.2.5</u>	
20	engine capacity (<u>ltr</u>)	<u>1.2.6</u>	
21	engine reference fuel type (<u>diesel/ LPG/CNG...</u>)	<u>1.2.7</u>	
22	Certification option used for generation of CdxA (default values/measurement)	<u>1.8.2</u>	Aerodynamics
23	CdxA value (<u>air drag value</u>)	<u>1.8.4</u>	
24	name and address of <u>transmission</u> [...] manufacturer	-	Main transmission specifications
25	make (trade name of <u>transmission</u> [...] manufacturer)	-	
26	certification option used for the generation of <u>simulation tool</u> [...] loss maps (<u>Option1/Option2/Option3/Standard values</u> [...])	<u>1.3.3</u>	
27	transmission type (<u>SMT, AMT, APT-S, APT-P</u>)	<u>1.3.4</u>	
28	number of gears	<u>1.3.5</u>	
29	transmission ratio final gear	<u>1.3.6</u>	
30	retarder [...] <u>type</u>	<u>1.3.7</u>	
31	power take off (yes/no)	<u>1.3.8</u>	
32	name and address of <u>axle</u> [...] manufacturer	-	Main axle specifications
33	make (trade name of <u>axle</u> [...] manufacturer)	-	
34	certification option used for the generation of [...] a <u>simulation tool</u> loss map (standard values/measurement)	<u>1.7.3</u>	
35	axle type (<u>e.g. standard single driven axle</u>)	<u>1.7.4</u>	
36	axle ratio	<u>1.7.5</u>	

37	Certification option used for the generation of [...] a <u>simulation tool</u> loss map (standard values/ measurement)	1.6.3	Angle drive specifications
38	angle drive ratio	1.6.4	
39	name and address of <u>tyre</u> [...] manufacturer	-	Main tyre specifications
40	make (trade name of <u>tyre</u> manufacturer)	-	
41	tyre dimension, axle 1	1.9.1	
42	specific rolling resistance coefficient (RRC) of all tyres on axle 1 [...]	1.9.3	
43	tyre dimension axle 2	1.9.4	
44	twin axle (yes/no) axle 2	1.9.5	
45	<u>specific</u> RRC of all tyres on axle 2 [...]	1.9.7	
46	tyre dimension axle 3	1.9.8	
47	twin axle (yes/no) axle 3	1.9.9	
48	<u>specific</u> RRC of all tyres on axle 3 [...]	1.9.11	
49	tyre dimension axle 4	1.9.12	
50	twin axle (yes/no) axle 4	1.9.13	
51	<u>specific RRC of all tyres on axle 4 [...]</u>	1.9.15	
52	engine cooling fan technology [...]	1.10.1	Main auxiliary specifications
53	steering pump technology [...]	1.10.2	
54	electric system technology [...]	1.10.3	
55	pneumatic system technology [...]	1.10.4	
56	mission profile (long haul, regional, urban, <u>municipal</u> , construction)	2.1.1	Simulation parameters (for each mission profile/load/fuel combination)
57	load (as defined in the [...] <u>simulation tool</u>) (<u>kg</u>)	2.1.2	
57a	<u>fuel type (diesel/petrol/LPG/CNG/...)</u> ¹⁵	<u>2.1.3</u>	
58	Total vehicle mass in simulation (<u>kg</u>)	2.1.4	

¹⁵ Clarification linked to Article 8 (2) as amended.

59	average speed (<u>km/h</u>)	2.2.1	Vehicle driving performance (for each mission profile/load/fuel combination)
60	minimum instantaneous speed (<u>km/h</u>)	2.2.2	
61	maximum instantaneous speed (<u>km/h</u>)	2.2.3	
62	maximum deceleration (<u>m/s²</u>)	2.2.4	
63	maximum acceleration (<u>m/s²</u>)	2.2.5	
64	full load percentage on driving time	2.2.6	
65	total number of gear shifts	2.2.7	
66	total driven distance (<u>km</u>)	2.2.8	
67	CO ₂ emissions (expressed in g/km, g/t-km, g/p-km, g/m ³ -km)	2.3.13-2.3.16	CO ₂ emissions and fuel consumption (for each mission profile/load/fuel combination)
68	fuel consumption (expressed in <u>g/km, g/t-km, g/p-km, g/m³-km, l/100km, l/t-km, l/p-km, l/m³-km, MJ/km, MJ/t-km, MJ/p-km, MJ/m³-km</u>)	2.3.1-2.3.12	
69	<u>Simulation</u> [...] <u>tool version (X.X.X.)</u>	3.1.1	Software and user information
70	Date and time of the [...] simulation	3.1.2	
71	[...] <u>Number of licence to operate the simulation tool</u> [...]	=	
72	<u>Cryptographic hash of simulation tool result</u>	3.1.4	
73	Advanced CO ₂ reducing technologies	-	Vehicle CO ₂ reducing technologies
<u>74</u>	<u>CO₂ mass emission of the engine over WHTC (g/kWh)</u>	<u>point 1.4.1 of the addendum to Appendix 5 or point 1.4.1 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</u>	<u>Engine CO₂ emission and specific fuel consumption</u>

<u>75</u>	<u>Specific fuel consumption of the engine over WHTC (g/kWh)</u>	<u>point 1.4.1 of the addendum to Appendix 5 or point 1.4.1 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</u>	
<u>76</u>	<u>CO₂ mass emission of the engine over WHSC (g/kWh)</u>	<u>point 1.4.2 of the addendum to Appendix 5 or point 1.4.2 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</u>	
<u>77</u>	<u>Specific fuel consumption of the engine over WHSC (g/kWh)</u>	<u>point 1.4.2 of the addendum to Appendix 5 or point 1.4.2 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</u>	

3. CdxA ranges for the purpose of publication according to Article 6

For the purpose of making publicly available the CdxA value specified in data entry 23 in accordance with Article 6, the Commission shall use the ranges defined in following table containing the corresponding range for each CdxA value:

<u>Range</u>	<u>CdxA value [m²]</u>	
	<u>Min CdxA (CdxA >= min CdxA)</u>	<u>Max CdxA (CdxA <MaxCdxA)</u>
<u>A1</u>	<u>0.0</u>	<u>3.0</u>
<u>A2</u>	<u>3.0</u>	<u>3.2</u>
<u>A3</u>	<u>3.2</u>	<u>3.4</u>
<u>A4</u>	<u>3.4</u>	<u>3.6</u>
<u>A5</u>	<u>3.6</u>	<u>3.8</u>
<u>A6</u>	<u>3.8</u>	<u>4.0</u>
<u>A7</u>	<u>4.0</u>	<u>4.3</u>
<u>A8</u>	<u>4.3</u>	<u>4.6</u>
<u>A9</u>	<u>4.6</u>	<u>4.9</u>
<u>A10</u>	<u>4.9</u>	<u>5.2</u>
<u>A11</u>	<u>5.2</u>	<u>5.5</u>
<u>A12</u>	<u>5.5</u>	<u>5.9</u>
<u>A13</u>	<u>5.9</u>	<u>6.3</u>
<u>A14</u>	<u>6.3</u>	<u>6.7</u>
<u>A15</u>	<u>6.7</u>	<u>7.1</u>
<u>A16</u>	<u>7.1</u>	<u>7.6</u>
<u>A17</u>	<u>7.6</u>	<u>8.1</u>
<u>A18</u>	<u>8.1</u>	<u>8.6</u>
<u>A19</u>	<u>8.6</u>	<u>9.2</u>

ANNEX II

Data reporting and management

1. REPORTING BY MEMBER STATES

1.1 [...]

1.2 The data specified in Part A of Annex I shall be transmitted in accordance with Article 4 by the contact point of the competent authority via electronic data transfer to the Central Data Repository managed by the EEA.

The contact point shall notify the Commission and the EEA when the data is transmitted by email to the following addresses:

[\[EC-CO2-HDV-IMPLEMENTATION@ec.europa.eu\]](mailto:EC-CO2-HDV-IMPLEMENTATION@ec.europa.eu) and

HDV-monitoring@eea.europa.eu.

2. REPORTING BY MANUFACTURERS

2.1 Manufacturers shall notify the Commission without delay and not later than by [31 December 2018] of the following information:

- (a) The manufacturer name indicated in the certificate of conformity or individual approval certificate;
- (b) The World Manufacturer Identifier code (WMI code) as defined in Commission Regulation (EU) No 19/2011¹⁶ to be used in the vehicle identification numbers of new heavy-duty vehicles to be placed on the market;

¹⁶ Commission Regulation (EU) No 19/2011 of 11 January 2011 concerning type-approval requirements for the manufacturer's statutory plate and for the vehicle identification number of motor vehicles and their trailers and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 8, 12.1.2011, p.1).

- (c) The contact point responsible for uploading the data to the Business Data Repository of the EEA.

They shall notify the Commission without delay of any changes to that information.

The notifications shall be sent to the addresses referred to in point 1.2.

- 2.2 New manufacturers entering the market shall inform the Commission without delay of the information referred to in point 2.1.

2.3 [...]

- 2.4 The data referred to in Article 5 (1) [...] shall be transmitted [...] by the contact point of the manufacturer via electronic transfer to the Business Data Repository managed by the EEA.

The contact point shall notify the Commission and the EEA when the data is transmitted by email to the functional mailboxes specified in point 1.2 of this Annex.

3. DATA PROCESSING

- 3.1 The EEA shall process the data transmitted in accordance with points 1.2 and 2.4 and shall record the processed data in the Central Register for data on heavy-duty vehicles.

- 3.2 The data relating to vehicles registered in the preceding calendar year and recorded in the Register shall be made public no later than by [31 October] each year, starting from [2020], with the exception of the data entries specified in Article 6(1).

- 3.3 Where a competent authority or manufacturers identify errors in the data submitted, they shall without delay notify those to the Commission and the EEA by submitting an error notification report to the Central Data Repository or the Business Data Repository and by email sent to the functional mailboxes referred to in point 1.2.

- 3.4 The Commission shall with the support of the EEA verify the notified errors and, where appropriate, correct the data in the Register.
- 3.5 The Commission, with the support of the EEA, shall make available electronic formats for the data transmissions referred to in points 1.2 and 2.4 in due time before the transmission deadlines.
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