GFV-39-03

#### INFORMAL GROUP ON GASEOUS FUELLED VEHICLES Within the UN GRPE (WP29) PROPOSED AMENDMENT Comments André Rijnders

Name of Organisation submitting Amendment/Work Item AEGPL

#### Person submitting Item Salvatore Piccolo\_comments André Rijnders

## Address/phone/email coordinates

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#### Regulation name and reference number

Regulation No. 115

#### Name of Amendment/Work Item

Proposal for an amendment to Regulation No 115 introducing simplifications to the communication model of approval.

#### Specific language for Amendment/Work Item English

#### Rationale: (Why is it important/required?)

The proposed amendment is aimed at simplifying the communication model of approval.

As regards vehicle types for which the retrofit system is qualified (i.e. other than parent vehicles), the current model requires the communication of a calculated CO2 emission-factor as well as of the specific CO2 emissions in gas mode.

Since the specific CO2 emissions in gas mode are calculated applying the CO2 factor to the "original" emissions in petrol mode, the communication of <u>only</u> the CO2 factor is sufficient to establish the CO2 emissions in gas mode of any vehicle type, when required.

For this reason, it is proposed to eliminate the communication of <u>the CO2 emission</u> and power figures of each specific vehicle, leaving this only for <u>the tested</u> (parent) ones.

This would relieve the retrofit system manufacturer of knowing in advance the original CO2 emissions of all qualified vehicles or of asking for an extension of approval when (frequently) a new model or variant of the same vehicle (i.e. with a different CO2 figure) is put into the market. For instance, in CP's where CO2 emissions in gas mode of a vehicle retrofitted in accordance with R115 are required to be published, at the moment of "conversion" registration the administration can easily calculate the CO2 <u>emissions figure</u> in gas mode multiplying the CO2

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factor for that specific vehicle (published in R. 115 communication model) by the original <u>petrol</u> CO2 emissions (published in the <del>license card, COC...)</del>.

#### Please submit new work items to:

Andre Rijnders, Chairman (RDW, Netherlands) <u>arijnders@rdw.nl</u> Acting secretariat(s) Jeffrey Seisler (IANGV/Clean Fuels Consulting) <u>jseisler@cleanfuelsconsulting.org</u> Salvatore Piccolo (on behalf of AEGPL) <u>s.piccolo@federchimica.it</u>

#### Changes are made on bold characters and/or via strikethroughs:

Annex 1A-Addendum and Annex 1B-Addendum, amend to read:

# Annex 1A – Addendum

# Addendum to the communication concerning a type of LPG retrofit equipment pursuant to Regulation No. 115

(Approval No. .....) Extension No. .....)

1. Vehicles on which the retrofit equipment has been tested:

Vehicle No.	1	2	Ν
Make:			
Туре:			
Category:			
Engine type			
Emission limits level :			
Power:			
Pollution control system type:			

2. Test results:

		Petrol (or diesel) <sup>+</sup>				LPG				
Vehi	el Power	$CO^{3}$	HC <sup>*</sup>	$NO_x^3$	$CO_2^2 CO_2^1$	Power	CO <sup>3</sup>	HC	NOx <sup>*</sup>	$C\Theta_2^2 \underline{CO_2^1}$
	( <i>kW</i> )	(g/km)	(g/km)	(g/km)	(g/km)	( <i>kW</i> )	(g/km)	(g/km)	(g/km)	(g/km)
No										
1										
2										
n										

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<sup>1</sup> Applicable to vehicles of category  $M_1$  and  $N_1$  only.

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# 3. Ratio's:

## 3.1 Ratio CO2:

Vehicle No. 1: CO2LPG /CO2 petrol2:
Vehicle No. 2: CO2LPG/CO2 petrol:

## 3.2 Ratio Power:

<u>Vehicle No. 1</u> LPG /Power petrol-(or diesel): ..... Vehicle No. 2 LPG/Power petrol

4. List of vehicles for which the retrofit equipment type is qualified:

<u>Qua</u>	lified vehicles und	ler tested vehicle	No/				
	<u>Vehicle make</u>	<u>Vehicle type</u>	<u>Category</u>	<u>Engine type</u>	<u>Emission</u> <u>level</u>	Power (kW)	Pollution control system type
<u>1</u>							
<u>2</u>							
<u>3</u>							
<u>n</u>							

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# Annex 1B - Addendum

# Addendum to the communication concerning a type of CNG retrofit equipment pursuant to Regulation No. 115

(Approval No. .....) Extension No. .....)

1. Vehicles on which the retrofit equipment has been tested:

Vehicle No.	1	2	Ν
Make:			
Туре:			
Category:			
Engine type			
Emission limits level :			
Power:			
Pollution control system type:			

#### 2. Test results:

		Pe	trol <del>(or diesel)<sup>+</sup></del>			LPG				
Vehicl	Power	$CO^{3}$	HC³	$NO_x^2$	$CO_2^2 CO_2^{\underline{l}}$	Power	CO <sup>2</sup>	HC <sup>2</sup>	NOx <sup>2</sup>	$C\Theta_2^2 \underline{CO_2^1}$
	( <i>kW</i> )	(g/km)	(g/km)	(g/km)	(g/km)	( <i>kW</i> )	(g/km)	(g/km)	(g/km)	(g/km)
No										
1										
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Strike ou	it what do	es not app	<del>ly.</del>	and N. o	nlv					

<u>Strike out what does not apply.</u> Applicable to vehicles of category  $M_1$  and  $N_1$  only.

## 3. Ratio's:

# 3.1 Ratio CO2:

Vehicle No. 1: CO2CNG /CO2	petrol:
Vehicle No. 2: CO2CNG/CO2	petrol:

# 3.2 Ratio Power:

Vehicle No. 1 CNG /Power petrol:

Vehicle No. 2 CNG/Power petrol.....

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# 4. List of vehicles for which the retrofit equipment type is qualified:

<u>Q</u> ua	Qualified vehicles under tested vehicle No/									
	<u>Vehicle make</u>	<u>Vehicle type</u>	<u>Category</u>	<u>Engine type</u>	<u>Emission</u> <u>level</u>	Power (kW)	Pollution control system type			
1										
<u>2</u>										
<u>3</u>										
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