

# Simplification of Regulations Lighting and Light Signaling Regulations including Regulation 48

## **Analysis and Concept** **EXECUTIVE SUMMARY**

GRE IWG SLR

Informal Working Group Simplification of Lighting Regulations

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# Simplification of Regulations

## Content

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- ***Terms of reference and tasks of the informal group***
- ***Basic concept***
- ***Structure of UN-Regulation No. 48***
- ***Structure of UN-Regulations for devices***
- ***Consequences and benefits***
- ***Conclusion concept vs. terms of reference***
- ***Questions to GRE***

# Simplification of Regulations

## Informal group - Terms of reference (Tasks)

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- Minimize the number of collective amendments in future
- Reduce the number of active (non-frozen) regulations
- Define more forceful essential requirements in performance terms

# Simplification of Regulations

## Informal group - Terms of reference (Goals)

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- Reduce the administrative burden
  - Easy base for future amendments
- Reduce the burden for governments
  - Reduction of “Collective Amendments”
  - Significantly less complex amendments
  - Option for a reduction of Regulations (in future)
- Reduce regulatory burden for industry
  - Simple handling in application of the Regulation

# Simplification of Regulations

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- *Questions to GRE*

# Simplification of Regulations

## Basic concept

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### Major components of the concept:

- Principle Concept starting with a “Horizontal Reference Document (HRD)”;

### Major components of the concept realization:

- Realization of the Principle Concept by implementation of the “HRD” as a Part II in the Regulation No. 48;
- Realization of a Principle Structure in the “Device”–Regulations in conjunction with the Part II in the Regulation No. 48;

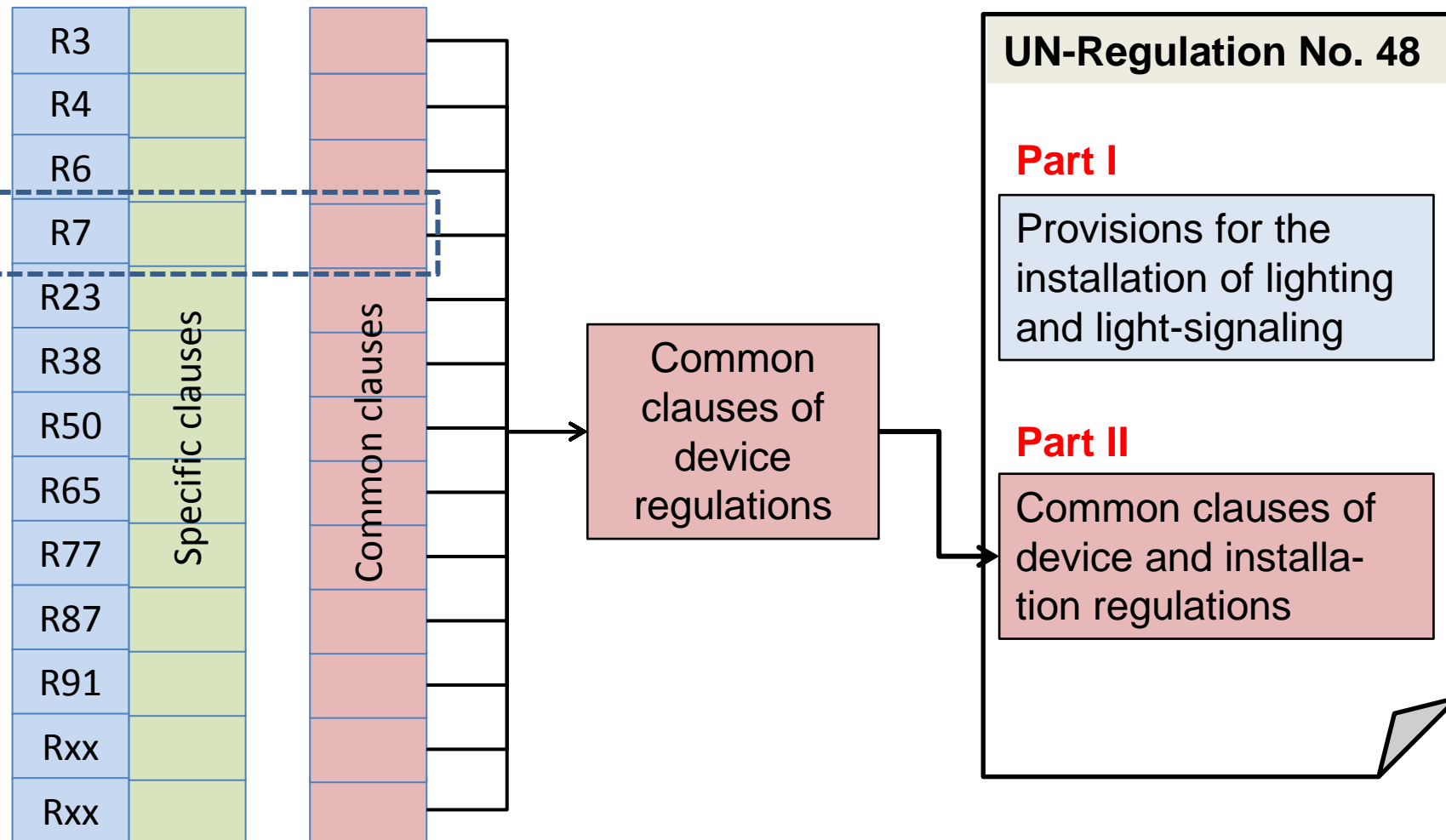
### Major objectives of the concept:

- Simple concept for References;
- Uniform provisions for all devices by using same reference;
- Simple handling in application of the Regulation and the Part II of Reg. 48.

# Simplification of Regulations

## Basic concept

Device regulations



# Simplification of Regulations

## Basic concept

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### New basic structure of UN- “Lighting” - Regulations

- A      Administrative provisions :  
i.e. Definitions, Type approval, markings etc.
  
- B      Technical requirements:  
i.e. General specifications, Intensity of light emitted, Test Procedure,  
Colour of light emitted
  
- C      Further administrative provisions  
i.e. Modification of type, Conformity of production (CoP), Penalties for  
non-conformity of production, Production definitively discontinued,  
Names and addresses, Transitional Provisions (if necessary) etc.
  
- D      Annexes



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# Simplification of Regulations

## New basic structure of UN-Regulation No. 48

### UN-Regulation No. 48

#### Part A

Paragraph numbers starts with “A”

“Installation”

...

Annexes

....

#### Part B

Paragraph numbers starts with “B”

“Common provisions”

...

Annexes

....

**No Contracting Party will be forced to become a signatory to the Regulation 48.**

**This approach is similar to the use of an ISO or SAE Standard!**

# Simplification of Regulations

## New basic structure of UN-Regulation No. 48, Part II

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### Content:

- B1. Definitions of Type**
- B2. Definitions**
- B3. Application for approval**
- B4. Approval**
- B5. Markings**
- B6. General Requirements**
- B7. General Requirements for signalling lamps**
- B8. General Requirements for head lamps**
- B9. General Requirements for retro - reflecting devices**
- B10. Modifications of a type of lamp for motor vehicles and their trailers and extension of approval**
- B11. Penalties for non-conformity of production**
- B12. Production definitely discontinued**
- B13. Names and addresses of Technical Services responsible for conducting approval tests, and of Administrative Departments**

### ANNEXES

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# Simplification of Regulations

## New basic structure of UN-Regulation No. 48, Part II

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### Annexes (so far):

1. Examples of arrangements of approval marks
2. Minimum requirements for conformity of production control procedures
3. Minimum requirements for sampling by an inspector
4. Colour of Lights
5. Photometric measurement provisions for signaling lamps
6. Photometric measurement provisions for head lamps
7. Photometric measurement provisions for retro-reflecting devices
8. Examples of lamp surfaces, axes, centres of reference, and angles of geometric visibility
9. Definition and sharpness of the "cut-off" line and aiming procedure by means of this "cut-off" line for asymmetrical and symmetrical passing beam headlamps
10. Tests for stability of photometric performance **of signaling lamps and** headlamps in operation
11. Requirements for lamps incorporating lenses of plastic material - Testing of lens or material samples and of complete lamps
12. Colour fastness to artificial light Xenon-arc lamp test for retro – reflecting devices
13. Requirements for LED modules and headlamps including LED modules
14. Gonio(photo)meter system used for the photometric measurements

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# Simplification of Regulations

## New basic structure of UN-Regulations for devices

### UN-Regulation No. xx (any device)

#### Provisions

0. Scope
1. Definitions
2. Application for approval
3. Markings
4. Approval
5. General specifications
6. Intensity of light emitted
7. Test procedure
8. Colour of light emitted
9. Modifications of a type of ...
10. Conformity of production
11. Penalties for non conformity of production
12. Production definitively discontinued
13. Names and addresses of Technical Services ...
14. Transitional provisions

Annexes

#### Annexes

- Fixed part (for all)
  1. **Communication**
  2. Photometric measurement
  3. Light distribution in space
- Specific part (individual)
  - *Additional Annexes for the specific Regulation (if needed)*

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# Simplification of Regulations

## Consequences and benefits, example

### Handling of **Application for approval**

#### Regulation xx (device)

- 2. **Application for approval**
- 2.1. The applicant shall follow instructions as stated in paragraph B3. of Regulation No. 48 and paragraph 2.2. below..
- 2.2. **The application for approval shall also specify:**
- 2.2.1. The purpose or purposes for which ....



#### R48, Part II

- B3. APPLICATION FOR APPROVAL
- B3.1. The application for approval of a type of lamp shall be submitted by the holder of the trade name or mark or by his duly accredited representative.
- B3.1.1. If applicable, the application shall specify the category of the device, and some of its characteristics.
- B3.1.2. At the discretion of the applicant, it may specify .....
- .....



# Simplification of Regulations

## Consequences and benefits, example

### Handling of Conformity of Production

#### Regulation xx (device)

##### 10. Conformity of production

The conformity of production procedures shall comply with those set out in the Agreement, Appendix 2 (E/ECE/324-E/ECE/TRANS/505/Rev.2), with the following requirements:

10.1. Lamps shall be so manufactured as to conform to the type approved under this regulation. The compliance with the requirements set forth in paragraphs 6 and 8 above shall be verified as follows:

10.1.1. The minimum requirements for conformity of production control procedures set forth in Annex 2 of Part II to Regulation 48 shall be complied with and no measured value deviates unfavourably by more than 20 per cent from the values prescribed in this Regulation.

In addition for the minimum values ...

10.1.2. The sampled lamp shall be subjected to photometric measurements for ...

10.1.2. The minimum requirements for sampling by an inspector set forth in Annex 3 of Part II to Regulation 48 shall be complied with

10.3. The authority which has granted type approval may at any time verify the conformity control methods applied in each production facility. The normal frequency of these verifications shall be once every two years.

#### R48, Part II

Annex 2  
MINIMUM REQUIREMENTS FOR CONFORMITY OF  
PRODUCTION CONTROL PROCEDURES  
.....

2.4 Measured and recorded photometric characteristics  
The sampled lamp shall be subjected to photometric and colorimetric measurements values at the points listed in Paragraph 10.1.2. of the pertinent Regulation

Annex 3  
MINIMUM REQUIREMENTS FOR SAMPLING BY AN  
INSPECTOR ....

# Simplification of Regulations

## Consequences and benefits, example

Possible Handling of Amendments:

Action / change	Reg. 48 Part A		Reg. 48 Part B		Specific Regulation	
	Supplement	New series	Supplement	New series	Supplement	New series
Technical requirement in installation (Part A)	X	[X]	NO	NO	NO	NO
Technical requirement in Part B with reference from Part A	X	[X]	NO	NO	NO	NO
Technical requirement in Part B with reference from a Specific Regulation	X	NO	NO	NO	[X]	[X]
Technical requirement in Specific Regulation	NO	NO	NO	NO	X	[X]

→ An amendment to part B should not cause a change to the series level of Regulation 48!

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# Simplification of Regulations

## Informal group – Concept vs. terms of reference

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- Minimize the number of collective amendments ✓
- Reduce the number of non-frozen regulations ✓
- Define essential requirements in performance terms ✓
- Reduce the administrative burden ✓
- Reduce the burden for governments ✓
- Reduce regulatory burden for industry ✓

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# Simplification of Regulations

## Open questions to GRE

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1. Does GRE have any observations to the approach being taken by the IWG-SLR?
2. If confirmed,  
does GRE wish to provide further guidance?

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**END**  
of presentation  
**THANK YOU**