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## **COVER NOTE**

From: date of receipt: To:	European Commission 6 May 2015 General Secretariat of the Council	
No. Cion doc.:	D038978/02	
Subject:	COMMISSION REGULATION (EU)/ of XXX amending Regulation (EC) No 244/2009 with regard to ecodesign requirements for non-directional household lamps and Regulation (EC) No 245/2009 with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council and Regulation (EU) No 1194/2012 with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment	

Delegations will find attached document D038978/02.

Encl.: D038978/02



EUROPEAN COMMISSION

> Brussels, XXX D038978/02 [...](2015) XXX draft

## COMMISSION REGULATION (EU) .../...

## of XXX

amending

Regulation (EC) No 244/2009 with regard to ecodesign requirements for non-directional household lamps

and

Regulation (EC) No 245/2009 with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council

and

Regulation (EU) No 1194/2012 with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment

(Text with EEA relevance)

## COMMISSION REGULATION (EU) .../...

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#### amending

# Regulation (EC) No 244/2009 with regard to ecodesign requirements for non-directional household lamps

and

#### Regulation (EC) No 245/2009 with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council

and

Regulation (EU) No 1194/2012 with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment

(Text with EEA relevance)

## THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products  $(^1)$ , and in particular Article 15(1) thereof,

After consulting the Ecodesign Consultation Forum,

Whereas:

(1) The Commission is required to carry out a review of Commission Regulation (EC) No 244/2009 (<sup>2</sup>) in light of technological progress, taking particular note of the evolution of sales of special purpose lamp types so as to verify that they are not used for general lighting purposes, of the development of new technologies such as LEDs and of the feasibility of establishing energy efficiency requirements at the 'A' class level as defined in Commission Directive 98/11/EC (<sup>3</sup>).

<sup>&</sup>lt;sup>1</sup> OJ L 285, 31.10.2009, p. 10

<sup>&</sup>lt;sup>2</sup> Commission Regulation (EC) No 244/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for non-directional household lamps (OJ L 76, 24.3.2009, p. 3)

<sup>&</sup>lt;sup>3</sup> Commission Directive 98/11/EC of 27 January 1998 implementing Council Directive 92/75/EEC with regard to energy labelling of household lamps (OJ L 71, 10.3.1998, p. 1.)

- (2) According to the evidence produced in the review of Regulation (EC) No 244/2009, it does not appear to be economically feasible for manufacturers to develop and place on the market from 1 September 2016 onwards, mains voltage halogen lamps achieving the limit set for 'stage 6' in Table 1 of the Commission Regulation (EC) No 244/2009 regarding the maximum rated power for a given rated luminous flux. An assessment of the predicted developments of more energy efficient lighting technologies indicates that a more optimal time point for the introduction of that limit would be 1 September 2018.
- (3) In order to maximise the environmental benefits and minimise any negative economic impacts for the user, it is necessary to require future luminaire designs to be compatible with energy efficient lighting solutions. The risk of a 'lock-in' effect to old, discontinued technologies should be minimised by ensuring that luminaires placed on the market are fully compatible with highly efficient lamps of at least the energy efficiency class 'A+' pursuant to Commission Delegated Regulation (EU) No 874/2012 (<sup>4</sup>).
- (4) The review of Regulation (EC) No 244/2009 revealed the need to update and clarify the definition of special purpose lamps, with the aim to reduce the use of special purpose lamps in general lighting applications and adapt the requirements to technological developments. The regulatory requirements should further facilitate the use of the most energy efficient lighting solution for a given special application.
- (5) It is necessary to ensure coherence between Regulation (EC) No 244/2009 and Commission Regulation (EU) No 1194/2012 (<sup>5</sup>) with respect to the definition and product information requirements of special purpose products, which can be achieved best through a combined amendment of both Regulations. This should simplify the compliance with the regulatory requirements for manufacturers and suppliers, and support effective market surveillance by national authorities.
- (6) The review of Regulation (EC) No 244/2009 concludes that the feasibility of establishing energy efficiency requirements at the 'A' class level or higher should be examined in a thorough follow-up study, which should also evaluate the feasibility of increasing energy efficiency requirements for products covered in Commission Regulation (EC) No 245/2009 (<sup>6</sup>) and Regulation (EU) No 1194/2012, of widening the scope of each to optimise reductions in energy consumption, and of unifying all three Regulations into a single, coherent implementing measure on Ecodesign requirements for lighting products.

<sup>&</sup>lt;sup>4</sup> Commission Delegated Regulation (EU) No 874/2012 of 12 July 2012 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of electrical lamps and luminaires (OJ L 258, 26.9.2012, p. 1.)

<sup>&</sup>lt;sup>5</sup> Commission Regulation (EU) No 1194/2012 of 12 December 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment (OJ L 342, 14.12.2012, p. 1)

<sup>&</sup>lt;sup>6</sup> Commission Regulation (EC) No 245/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council (OJ L 76, 24.3.2009, p. 17).

- (7) Regulation (EC) No 245/2009 identifies the energy in the use phase and the mercury content of lamps as its significant purpose. Thus, having product performance requirements for lamps without either product efficacy requirements or mercury content results in an unnecessary regulatory burden, and might lead to a product's phase-out on non-significant grounds. Amending the scope of product performance requirements to be in line with the scope of the Regulation's significant purpose should therefore improve regulatory appropriateness.
- (8) In considering the need for revising the lighting related ecodesign and energy labelling regulations, it will be appropriate to reconsider inter alia the exemption of lamps with G9 and R7s socket type, and the minimum energy performance requirements of lamps.
- (9) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 19(1) of Directive 2009/125/EC,

## HAS ADOPTED THIS REGULATION:

#### Article 1 Amendment to Regulation (EC) No 244/2009

Regulation (EC) No 244/2009 is amended as follows:

- 1. Article 2 is amended as follows:
  - (a) Point (4) is replaced by the following:

"4. 'special purpose lamp' means a lamp that uses the technologies covered by this Regulation but is intended for use in special applications because of its technical parameters as described in the technical documentation. Special applications are those that require technical parameters not necessary for the purposes of lighting average scenes or objects in average circumstances. These applications are of the following types:

- (a) applications where the primary purpose of the light is not lighting, such as
  - (i) emission of light as an agent in chemical or biological processes (such as polymerisation, ultraviolet light used for curing / drying / hardening, photodynamic therapy, horticulture, pet care, anti-insect products);
  - (ii) image capture and image projection (such as camera flashlights, photocopiers, video projectors);
  - (iii) heating (infrared lamps);
  - (iv) signalling (such as traffic control or airfield lamps);
- (b) lighting applications where
  - (i) the spectral distribution of the light is intended to change the appearance of the scene or object lit, in addition to making it visible (such as food

display lighting or coloured lamps as defined in point 1 of Annex I), with the exception of variations in correlated colour temperature; or

- (ii) the spectral distribution of the light is adjusted to the specific needs of particular technical equipment, in addition to making the scene or object visible for humans (such as studio lighting, show effect lighting, theatre lighting); or
- (iii) the scene or object lit requires special protection from the negative effects of the light source (such as lighting with dedicated filtering for photosensitive patients or photosensitive museum exhibits); or
- (iv) lighting is required only for emergency situations (such as emergency lighting luminaires or control gears for emergency lighting); or
- (v) the lighting products have to withstand extreme physical conditions (such as vibrations or temperatures below -20°C or above 50°C);

Incandescent lamps longer than 60mm are not special purpose lamps, if they are resistant only to mechanical shock or vibrations and are not incandescent traffic signalling lamps; or they possess a rated power higher than 25W and claim to have specific features that are also present in lamps having higher energy efficiency classes according to Regulation (EU) No 874/2012 (such as zero EMC emissions, CRI value higher or equal to 95, and UV emissions less or equal than 2mW per 1000lm);"

(b) point (9) is replaced by the following:

"9. 'tungsten halogen lamp' means a filament lamp in which the filament is made of tungsten and is surrounded by gas containing halogens or halogen compounds in a bulb fabricated of quartz or hard glass, which may be assembled into a secondary envelope. It may be supplied with an integrated power supply;"

(c) point (19) is added as follows:

"19. 'incandescent traffic signalling lamp' means an incandescent lamp with a rated voltage above 60V, and a failure rate of less than 2% during the first 1000 hours of operation."

2. Article 3 is replaced by the following:

#### "*Article* 3 Ecodesign requirements

1. Non-directional household lamps shall meet the ecodesign requirements set out in Annex II.

Each ecodesign requirement shall apply in accordance with the following stages:

Stage 1: 1 September 2009,

Stage 2: 1 September 2010,

Stage 3: 1 September 2011,

Stage 4: 1 September 2012,

Stage 5: 1 September 2013,

Stage 6: 1 September 2018.

Unless a requirement is superseded or this is otherwise specified, it shall continue to apply together with the other requirements introduced at later stages.

2. Special purpose lamps shall comply with the following requirements:

(a) If the chromaticity coordinates of a lamp always fall within the following range:

x < 0,270 or x > 0,530

y < -2,3172 x<sup>2</sup> + 2,3653 x — 0,2199 or y > -2,3172 x<sup>2</sup> + 2,3653 x — 0,1595;

the chromaticity coordinates shall be stated in the technical documentation file drawn up for the purposes of conformity assessment in accordance with Article 8 of Directive 2009/125/EC, which shall indicate that these coordinates make them a special purpose lamp.

(b) For all special purpose lamps, the intended purpose shall be stated in all forms of product information, together with the warning that they are not intended for use in other applications.

The technical documentation file drawn up for the purposes of conformity assessment in accordance with Article 8 of Directive 2009/125/EC shall list the technical parameters that make the lamp design specific for the stated intended purpose.

If needed, the parameters may be listed in such a way as to avoid disclosing commercially sensitive information linked to the manufacturer's intellectual property rights.

If the lamp is visibly displayed to the end-user prior to purchase, the following information shall be clearly and prominently indicated on the packaging:

- (i) the intended purpose;
- (ii) that it is not suitable for household room illumination; and
- (iii) the technical parameters that make the lamp design specific for the stated intended purpose.

The information in point (iii) can alternatively be provided inside the packaging. "

#### Article 2 Amendment to Regulation (EC) No 245/2009

Annex III of Regulation (EC) No 245/2009 is amended as set out in the Annex I to this Regulation.

## Article 3 Amendment to Regulation (EU) No 1194/2012

Regulation (EU) No 1194/2012 is amended as follows:

- 1. Article 2 is amended as follows:
  - (a) Point (4) is replaced by the following:

"4. 'special purpose product' means a product that uses the technologies covered by this Regulation but is intended for use in special applications because of its technical parameters as described in the technical documentation. Special applications are those that require technical parameters not necessary for the purposes of lighting average scenes or objects in average circumstances. These applications are of the following types:

- (a) applications where the primary purpose of the light is not lighting, such as
  - (i) emission of light as an agent in chemical or biological processes (such as polymerisation, ultraviolet light used for curing / drying / hardening, photodynamic therapy, horticulture, pet care, anti-insect products);
  - (ii) image capture and image projection (such as camera flashlights, photocopiers, video projectors);
  - (iii) heating (infrared lamps);
  - (iv) signalling (such as traffic control or airfield lamps);
- (b) lighting applications where
  - (i) the spectral distribution of the light is intended to change the appearance of the scene or object lit, in addition to making it visible (such as food display lighting or coloured lamps as defined in point 1 of Annex I), with the exception of variations in correlated colour temperature; or
  - (ii) the spectral distribution of the light is adjusted to the specific needs of particular technical equipment, in addition to making the scene or object visible for humans (such as studio lighting, show effect lighting, theatre lighting); or

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- (iii) the scene or object lit requires special protection from the negative effects of the light source (such as lighting with dedicated filtering for photosensitive patients or photosensitive museum exhibits); or
- (iv) lighting is required only for emergency situations (such as emergency lighting luminaires or control gears for emergency lighting); or
- (v) the lighting products have to withstand extreme physical conditions (such as vibrations or temperatures below -20°C or above 50°C);

Incandescent lamps longer than 60mm are not special purpose products, if they are resistant only to mechanical shock or vibrations and are not incandescent traffic signalling lamps; or they possess a rated power higher than 25W and claim to have specific features that are also present in lamps having higher energy efficiency classes according to Regulation (EU) No 874/2012 (such as zero EMC emissions, CRI value higher or equal to 95, and UV emissions less or equal than 2mW per 1000lm);"

(b) point (28) is replaced by the following:

"28. 'luminaire' means a product which distributes, filters or transforms the light transmitted from one or more lamps and includes all the parts necessary for supporting, fixing and protecting the lamps and, where necessary, circuit auxiliaries together with the means for connecting them to the electric supply. If the primary purpose of a product is not lighting and the product is dependent on energy input in fulfilling its primary purpose during use (such as refrigerators, sewing machines, endoscopes, blood analysers) it is not considered a luminaire for the purposes of this Regulation; "

(c) point (31) is added as follows:

"31. 'incandescent traffic signalling lamp' means an incandescent lamp with a rated voltage above 60V, and a failure rate of less than 2% during the first 1000 hours of operation."

2. Annexes I, III and IV are amended as set out in the Annex II to this Regulation.

## Article 4 Entry into force

This Regulation shall enter into force six months after the date 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 Commission The President Jean-Claude JUNCKER



Brussels, XXX [...](2015) XXX draft

ANNEXES 1 to 2

## ANNEXES

#### to the

#### COMMISSION REGULATION (EU) .../...

amending

Regulation (EC) No 244/2009 with regard to ecodesign requirements for non-directional household lamps

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#### <u>ANNEX I</u> <u>Amendment to Annex III of Regulation (EC) No 245/2009</u>

1. In Annex III, point 1.2 (B) the last paragraph is replaced by the following:

"High pressure sodium lamps with lamp efficacy requirements shall have at least the lamp lumen maintenance factors and lamp survival factors in Table 13:

#### Table 13

Lamp lumen maintenance factors & lamp survival factors for high pressure sodium lamps - Stage 2

High pressure sodium lamp category and burning hours for measurement		Lamp lumen maintenance factor	Lamp survival factor
$P \le 75 W$ LLMF and LSF measured at 12000 burning hours	$Ra \le 60$	> 0,80	> 0,90
	Ra > 60	> 0,75	> 0,75
	all retrofit lamps designed to operate on high pressure mercury vapour lamp ballast	> 0,75	> 0,80
$P > 75 W \le 605 W$ LLMF and LSF measured at 16000 burning hours	$Ra \le 60$	> 0,85	> 0,90
	Ra > 60	> 0,70	> 0,65
	all retrofit lamps designed to operate on high pressure mercury vapour lamp ballast	> 0,75	> 0,55

The requirements in Table 13 for retrofit lamps designed to operate on high pressure mercury vapour lamp ballast shall be applicable until 6 years after the entry into force of this Regulation."

#### 2. In Annex III, point 1.2 (C) is replaced by the following:

"C. Third stage requirements

Eight years after the entry into force of this Regulation:

Metal halide lamps with lamp efficacy requirements shall have at least the lamp lumen maintenance factors and lamp survival factors in Table 14:

Lamp lumen maintenance factors and lamp survival factors for metal halide lamps - Stage 3

Burning Hours	Lamp lumen maintenance factor	Lamp survival factor
12 000	> 0,80	> 0,80

"

Table 14

#### <u>ANNEX II</u> Amendments to Annexes I, III and IV of Regulation (EU) No 1194/2012

1. In Annex I, point 2 is replaced by the following:

"2. For all special purpose products, the intended purpose shall be stated in all forms of product information, together with the warning that they are not intended for use in other applications.

The technical documentation file drawn up for the purposes of conformity assessment in accordance with Article 8 of Directive 2009/125/EC shall list the technical parameters that make the product design specific for the stated intended purpose.

If needed, the parameters may be listed in such a way as to avoid disclosing commercially sensitive information linked to the manufacturer's intellectual property rights.

If the product is visibly displayed to the end-user prior to purchase, the following information shall be clearly and prominently indicated on the packaging:

- (a) the intended purpose;
- (b) that it is not suitable for household room illumination; and
- (c) the technical parameters that make the lamp design specific for the stated intended purpose.

The information in point (c) can alternatively be provided inside the packaging."

2. In Annex III, point 2.3 is replaced by the following:

#### "2.3 Functionality requirement for equipment designed for installation between the mains and the lamps

- (a) As from stage 2, equipment designed for installation between the mains and the lamps shall comply with state-of-the-art requirements for compatibility with lamps whose energy efficiency index (calculated for both directional and non-directional lamps in accordance with the method set out in point 1.1 of this Annex) is at most:
  - 0,24 for non-directional lamps (assuming that  $\Phi_{use}$  = total rated luminous flux);
  - 0,40 for directional lamps.

When a dimming control device is switched on at its lowest control setting for which the operated lamps consume power, the operated lamps shall emit at least 1% of their luminous flux at full load.

When a luminaire is placed on the market and lamps that the end-user can replace are included with the luminaire, these lamps shall be of one of the two

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highest energy classes, according to Delegated Regulation (EU) No 874/2012, with which the luminaire is labelled to be compatible.

- (b) As from stage 3, a luminaire designed for lamps replaceable by the end-user, which is placed on the market, shall be fully compatible with lamps of at least the energy efficiency class 'A+' according to Delegated Regulation (EU) No 874/2012. The technical documentation file of such luminaires drawn up for the purposes of conformity assessment in accordance with Article 8 of Directive 2009/125/EC shall list at least one realistic combination of product settings and conditions in which to test the product."
- 3. In Annex IV, point 3 is replaced by the following:

## "3. Verification procedure for equipment designed for installation between the mains and the lamps

Member State authorities shall test one single unit.

The equipment shall be considered to comply with the requirements laid down in this Regulation if it is found to comply with the compatibility provisions of point 2.3 of Annex III, applying state-of-the-art methods and criteria for assessing compatibility, including those set out in documents whose reference numbers have been published for that purpose in the Official Journal of the European Union. If non-compatibility is concluded for the compatibility provisions of point 2.3.(a) of Annex III, the model shall still be considered to comply if it fulfils the product information requirements in point 3.3 of Annex III or in Article 3.2 of Delegated Regulation (EU) No 874/2012.

In addition to the compatibility requirements, lamp control gear shall also be tested for the efficiency requirements in point 1.2 of Annex III. The test shall be carried out on a single piece of lamp control gear, not on a combination of several pieces of lamp control gear, even if the model is designed to rely on other pieces of lamp control gear to operate the lamp(s) in a given installation. The model shall be considered to comply with the requirements if the results do not vary from the limit values by more than 2,5%. If the results vary from the limit values by more than 2,5%, three more units shall be tested. The model shall be considered to comply with the requirements if the average of the results of the subsequent three tests does not vary from the limit values by more than 2,5%.

In addition to the compatibility requirements, luminaires intended to be marketed to end-users shall also be checked for the presence of lamps in their packaging. The model shall be considered to comply if no lamps are present or if the lamps that are present are of the energy classes required in point 2.3 of Annex III.

In addition to the compatibility requirements, dimming control devices shall be tested with filament lamps when the control device is in the minimum dimming position. The model shall be considered to comply if, when installed according to the manufacturer's instructions, the lamps provide at least 1% of their luminous flux at full load.

If the model does not fulfil the applicable compliance criteria referred to above, it shall be considered not to comply. The Member State authorities shall provide the test results and other relevant information to the authorities of the other Member States and to the Commission within one month of the decision being taken on the non-compliance of the model."