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COMMISSION DECISION

of 9 September 2002

establishing revised ecological criteria for the award of the Community eco-label to light bulbs and amending Decision 1999/568/EC

(notified under document number C(2002) 3310)

(Text with EEA relevance)

(2002/747/EC)

(OJ L 242, 10.9.2002, p. 44)

Amended by:

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(Text with EEA relevance)

(2002/747/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Regulation (EC) No 1980/2000 of the European Parliament and of the Council of 17 July 2000 on a revised Community eco-label award scheme [1], and in particular the second subparagraph of Article 6(1) thereof,

Whereas:

(1) Under Regulation (EC) No 1980/2000 the Community eco-label may be awarded to a product possessing characteristics which enable it to contribute significantly to improvements in relation to key environmental aspects.

(2) Regulation (EC) No 1980/2000 provides that specific eco-label criteria are to be established according to product groups.

(3) It also provides that the review of the eco-label criteria, as well as of the assessment and verification requirements related to the criteria, is to take place in due time before the end of the period of validity of the criteria specified for each product group. That review is to result in a proposal for prolongation, withdrawal or revision.

(4) It is appropriate to revise the ecological criteria that were established by Commission Decision 1999/568/EC of 27 July 1999 establishing the ecological criteria for the award of the Community eco-label to light bulbs [2] in order to reflect the developments in the market. At the same time, the period of validity of that Decision and the definition of the product group should be modified.

(5) A new Commission Decision should be adopted establishing the specific ecological criteria for this product group, which will be valid for a period of four years.

(6) It is appropriate that, for a limited period of not more than twelve months, both the new criteria established by this Decision and the criteria established by Decision 1999/568/EC should be valid concurrently, in order to allow sufficient time for companies that have been awarded or that have applied for the award of the eco-label for their products prior to the date of application of this Decision to adapt those products to comply with the new criteria.

(7) The measures provided for in this Decision are based on the draft criteria developed by the European Union Eco-Labelling Board established under Article 13 of Regulation (EC) No 1980/2000.

(8) The measures provided for in this Decision are in accordance with the opinion of the committee instituted by Article 17 of Regulation (EC) No 1980/2000,

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[1] OJ L 237, 21.9.2000, p. 1.
[2] OJ L 216, 14.8.1999, p. 18.

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HAS ADOPTED THIS DECISION:

Article 1

In order to be awarded the Community eco-label under Regulation (EC) No 1980/2000, a light bulb must fall within the product group 'light bulbs' as defined in Article 2, and must comply with the ecological criteria set out in the Annex to this Decision.

Article 2

1. The product group 'light bulbs' shall comprise:

'single-ended light bulbs': all light bulbs which provide general purpose lighting and have single-ended, bayonet, screw or pin fittings. The light bulbs shall be connectable to the public electricity supply.

'double-ended light bulbs': all light bulbs which provide general purpose lighting and have fittings at both ends. This includes, principally, all linear fluorescent tubes. The light bulbs shall be connectable to the public electricity supply.

2. The following types of lamps are not included in the product group: compact fluorescent lamps with a magnetic ballast, projector lamps, photographic lighting and solarium tubes.

Article 3

For administrative purposes the code number assigned to the product group 'light bulbs' shall be '008'.

Article 4

Article 3 of Decision 1999/568/EC is replaced by the following:

'Article 3

The product group definition and the specific ecological criteria for the product group shall be valid until 31 August 2003.'

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Article 5

The ecological criteria for the product group light bulbs, as well as the related assessment and verification requirements, shall be valid until 31 August 2007.

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Article 6

This Decision is addressed to the Member States.

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ANNEX

FRAMEWORK

The aims of the criteria

These criteria aim in particular at promoting:

— the reduction of environmental damage or risks related to the use of energy (global warming, acidification, depletion of non-renewable resources) by reducing energy consumption,

— the reduction of environmental damage or risks related to the use of resources in both the manufacture and treatment/disposal of a light bulb by increasing its average lifetime,

— the reduction of environmental damage or risks related to the use of mercury by reducing the total emissions of mercury during the lifetime of a light bulb.

The criteria also encourage the implementation of best practice (optimal environmental use) and enhance consumers' environmental awareness. The criteria are set at levels that promote the labelling of light bulbs that are produced with low environmental impact.

Assessment and verification requirements

The specific assessment and verification requirements are indicated within each criterion. Testing should be performed by appropriately accredited laboratories or laboratories that meet the general requirements expressed in standard EN ISO 17025 and are competent to perform the relevant tests.

Where the applicant is required to provide declarations, documentation, analyses test reports or other evidence to the competent body assessing the application in order to show compliance with the criteria, it is understood that these may originate from the applicant and/or his supplier(s) and/or their supplier(s), et cetera, as appropriate. The competent body assessing the application may carry out independent verifications.

The competent bodies are recommended to take into account the implementation of recognised environmental management schemes, such as EMAS or ISO14001, when assessing applications and monitoring compliance with the criteria (*Note*: it is not required to implement such management schemes).

CRITERIA

1. **Energy efficiency, lifetime, lumen maintenance and mercury content**

Single-ended light bulbs shall meet the following requirements:

	Single-ended with integral ballast (compact fluorescent lamps)	Single-ended without integral ballast (pin based lamp)
Energy efficiency	Class A	Class A or B
Lifetime	over 10 000 hours	over 10 000 hours
Lumen maintenance	over 70 % at 10 000 hours	over 80 % at 9 000 hours
Average mercury content	maximum of 4,0 mg	maximum of 4,0 mg

Double-ended light bulbs shall meet the following requirements:

	Double-ended, normal life	Double-ended, long life
Energy efficiency	Class A	Class A
Lifetime	over 12 500 hours	over 20 000 hours
Lumen maintenance	over 90 % at 12 500 hours	over 90 % at 20 000 hours

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	Double-ended, normal life	Double-ended, long life
Average mercury content	maximum of 5,0 mg	maximum of 8,0 mg

Note:Energy efficiency is as defined in Annex IV of Commission Directive 98/11/EC of 27 January 1998 implementing Council Directive 92/75/EEC with regard to energy labelling of household lamps ([1]).

Assessment and verification: The applicant shall provide a test report stating that the energy efficiency, lifetime and lumen maintenance of the light bulb have been determined using the test procedures referred to in EN 50285. The report shall state the energy efficiency, lifetime and lumen maintenance of the light bulb. If the appropriate lifetime test has not been completed, the operational lifetime as stated on the packaging is acceptable pending the result of the test. However, the result of the test must be provided within 12 months of the date of application for the eco-label.

The applicant shall provide a test report stating that the mercury content has been measured using the method described below. The report shall state the average mercury content, calculated by analysing ten lamps, and then deleting the highest and lowest values before calculating the arithmetic mean of the remaining eight values.

The test method for the mercury content is as follows. The arc tube is first separated from its plastic surrounds and associated electronics. The associated leadwires are cut as close to the glass seal as possible. The arc tube is taken to a fume cupboard and is cut into segments. The segments are placed in a suitably sized robust screw-capped plastic bottle to which is added a 1 inch diameter porcelain ball and 25 ml of high purity concentrated nitric acid (70 %). The bottle is sealed and shaken for a few minutes to reduce the arc tube to fine particle size, the stopper is periodically loosened to eliminate any possibility of pressure build-up. The contents of the bottle are allowed to react for 30 minutes during which time the contents are periodically agitated. The contents of the bottle are then filtered through an acid resistant filter paper and collected in a 100 ml graduated volumetric flask. Potassium dichromate is then added to the flask so that the final concentration is 1 000 ppm with respect to chromium. The flask is then made up to volume with pure water. Matched standards are made up on a concentration range up to 200 ppm mercury. The solutions are analysed using flame atomic absorption at a wavelength of 253,7 nm with background correction on. From the results obtained and knowledge of the solution volume, the original mercury content of the light bulb can be computed. The competent body may agree adaptations to the details of this test method if they are necessary for technical reasons, and these shall be applied in a consistent manner.

2. **Switch on/off**

For compact fluorescent lamps (CFLs), the number of switch on/off cycles shall be greater than 20 000.

Assessment and verification: The applicant shall provide a test report stating that the number of switch on/off cycles for a CFL has been determined using a rapid cycle test (0,5 minute on, 4,5 minutes off) and the test procedures for lifetime referred to in EN 50285. The report shall state the number of switch on/off cycles achieved when 50 % of CFLs tested meet the requirements for lamp lifetime referred to in EN 50285.

3. **Colour rendering index**

The colour rendering (Ra) index of the light bulb shall be greater than 80.

Assessment and verification: The applicant shall provide a test report stating that the colour rendering index of the light bulb has been determined using the test procedure referred to in CIE-standard/publication 29/2. The report shall state the colour rendering index of the light bulb.

([1]) OJ L 71, 10.3.1998, p. 1.

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4. **Flame retardants**

(a) Plastic parts heavier than 5 g shall not contain the following flame retardants:

Name	CAS No
Decabromodiphenyl	13654-09-6
Monobromodiphenyl ether	101-55-3
Dibromodiphenyl ether	2050-47-7
Tribromodiphenyl ether	49690-94-0
Tetrabromodiphenyl ether	40088-47-9
Pentabromodiphenyl ether	32534-81-9
Hexabromodiphenyl ether	36483-60-0
Heptabromodiphenyl ether	68928-80-3
Octabromodiphenyl ether	32536-52-0
Nonabromodiphenyl ether	63936-56-1
Decabromodiphenyl ether	1163-19-5
Chloroparaffins with chain length 10-13 C atoms, chlorine content > 50 % by weight	85535-84-8

(b) Plastic parts heavier than 5 g shall not contain flame retardant substances or preparations containing substances that are assigned at the time of application any of the following risk phrases (or combinations thereof):

R45 (may cause cancer)

R46 (may cause heritable genetic damage)

R50 (very toxic to aquatic organisms)

R51 (toxic to aquatic organisms)

R52 (harmful to aquatic organisms)

R53 (may cause long-term adverse effects in the aquatic environment)

R60 (may impair fertility)

R61 (may cause harm to the unborn child)

as defined in Council Directive 67/548/EEC of 27 June 1967 on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances ([1]) and its subsequent amendments.

Assessment and verification: The applicant shall declare the compliance of the product with these requirements.

5. **Packaging**

Laminates and composite plastics must not be used.

For *single-ended light bulbs*, all cardboard packaging must contain a minimum of 65 % recycled material (by weight).

For *double-ended light bulbs*, all cardboard packaging must contain a minimum of 80 % recycled material (by weight).

Assessment and verification: The applicant shall declare the compliance of the product with these requirements.

6. **User instructions**

The product shall be sold with relevant user information providing advice on its proper environmental use. In particular:

(a) Information (pictogram or otherwise) on the packaging shall draw attention to the appropriate disposal conditions, including regulatory requirements.

([1]) OJ 196 of 16.8.1967, p. 1.

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(b) For single-ended light bulbs: light bulbs which do not operate on dimmer switches shall be labelled, and the relative size and shape of the light bulb compared to a conventional incandescent lamp shall be indicated on the packaging.

(c) For double-ended light bulbs: information on the packaging shall indicate that the environmental performance of the light bulb is improved when it is used with high frequency electronic control equipment.

(d) The product packaging shall indicate that more information on the eco-label can be found at the web-site address: http://europa.eu.int/ecolabel.

Assessment and verification: The applicant shall declare the compliance of the product with these requirements, and shall provide a copy of the packaging to the competent body assessing the application.

7. **Information appearing on the eco-label**

Box 2 of the eco-label shall include the following text:

'High energy efficiency

Long lifetime'

If the light bulb does not contain mercury, Box 2 of the eco-label may state that the lightbulb does not contain mercury.

Assessment and verification: The applicant shall declare the compliance of the product with this requirement, and shall provide a copy of the eco-label as it appears on the packaging and/or product to the competent body assessing the application.