

Response To Öko-Institut

regarding the

1st Questionnaire Exemption No. 2(b)4

*“Mercury in other fluorescent lamps not exceeding (per lamp):
(4) Lamps for other general lighting and special purposes (e.g. induction lamps):
15 mg per lamp”*

Date of submission: September 15, 2015

Name and contact details

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Abbreviations and Definitions

Hg	Mercury
LED	Light Emitting Diode
LEU	LightingEurope

Background

The Oeko-Institute has been appointed within a framework contract¹ for the evaluation of an application for granting an exemption to be included in or deleted from Annexes III and IV of the new RoHS Directive 2011/65/EU (RoHS 2) by the European Commission.¹

LightingEurope has submitted the above mentioned request for exemption which has been subject to a first evaluation. The information you have referred has been reviewed and as a result we have identified that there is some information missing and a few questions to clarify concerning your request.

Questions

1. LEU states that due to a vast variety of parameters relevant for lamps falling under Ex. 2(b)(4), such lamps cannot be easily replaced with LED alternatives (eg., form factor, length, spectrum). Please provide detailed quantitative data of parameters in a table-like overview of the mentioned selection of lamps falling in the scope of Ex. 2(b)(4) in comparison with available Hg-free substitute (e.g. LED) .

Answer of LightingEurope: Lamps covered by exemption 2(b)(4) share certain similarities: they have a specific special purpose and they usually have a small market share. Developing retrofit or conversion lamps takes as much time as other comparable electrical and electronic equipment. Prerequisite for the development of such products is market demand.. Currently this is not the case, so the efforts would end up in higher costs than earnings. Even if Retrofit/conversion solutions would be developed it must be shown case by case for every application whether the lamp can technically replace the fluorescent lamp with all required specified parameters. Therefore LightingEurope is not able in the moment to give a detailed overview. For lamps such as induction lamps, tanning, black light blue, medical lamps, lamps for colour comparison, lamps with high colour rendering index, T12 lamps for areas with explosion protection or with external ignition strips LightingEurope is not aware of existing replacement lamps. Only in the group of coloured lamps for non-professional purposes LED T8 retrofit lamps might be available. All lamps do have a very small market share making it very difficult to offer retrofit solutions, even if it would be technically feasible to realise the specified requirements.

2. LEU has proposed definitions for:
 - a. **“General lighting lamps** are lamps, which are not covered by the “special purpose” lamp definition and are marketed or commercialised primarily for the production of visible light. They have standard shape, dimensions and cap.”; and
 - b. **“Special purpose lamps** have documented and communicated application-specific features. They are generally manufactured in accordance with general-purpose lamp making technology. The use of special design, materials and process steps provide their special features.”

¹ Contract is implemented through Framework Contract No. ENV.C.2/FRA/2011/0020 led by Eunomia

According to the consultants, these definitions leave some areas of uncertainty and overlap – both groups of lamps are generally manufactured with the same technology; according to the examples given, some of the lamps falling under Ex. 2(b)(4) (special purpose) also primarily produce visible light; Please suggest how the wording could be modified so that such overlaps are avoided. Alternatively, please provide exhaustive lists of typical lamps falling in exemptions where “special purpose” is mentioned.

Answer of LightingEurope: LightingEurope does not have a proposal for a short wording describing lamps falling in 2(b)(4) in a better or less uncertain way. It is correct, that some lamps also primarily produce visible light. One such example are lamps with high colour rendering index ($R_a > 90$), which can only be realised with phosphor additives consuming more mercury. Another example are linear fluorescent lamps using amalgam technologies for lamps for special temperature ranges. In all these cases the special purpose is described in the catalogues. As there is regarding RoHS legislation no official definition LightingEurope members have developed and published a position which lamps according our interpretation are falling into exemptions like 1(f), 2(b)(4), 4(a) or 4(f). This position is the basis for our exemption requests and renewal requests since 2008. A change in this definition would have clear impact to the other exemptions. LightingEurope currently is not aware of misuse of the exemption.

3. The current threshold specified in the exemption in the form of a 15 mg limit, leaves a wide range allowance for using Hg. Examples of lamps falling under this exemption show that in some cases the limit is needed but that in other cases a far lower threshold could be applied. In this respect, can certain sub-groups of lamps be addressed in relation to the actual use of Hg applied?

Answer of LightingEurope: This split would increase complexity of the exemptions which is already higher than for any other exemption in Annex III of RoHS Directive. Currently 28 (!) valid and 2 expired exemptions for mercury in lamps make it already difficult for authorities to act appropriately regarding market surveillance. The benefit of yet another category is nearly zero as specialty lamps are by their nature sold in small numbers, clearly these lamps show that mercury is dosed by producers far below the limit if technically possible.

Please provide a roadmap for substitution of lamps understood to fall under the scope of Ex. 2(b)(4) to show at what time alternatives that do not contain RoHS Annex II substances can be made available on the EU market.

- a. What efforts have been realised since the last evaluation of Ex. 2(b)(4)?
- b. Please detail what stages of development are needed?
- c. Please estimate the needed timeframe for each stage along with a short explanation that should allow following why the estimated time is needed;
- d. Where relevant, please state what stages could run in parallel and what stages need to take place on a linear basis

Answer of LightingEurope: Lamps covered by exemption 2(b)(4) cover a market segment with a vast variety of parameters relevant for lamps and small market shares per single lamp model. Developing retrofit or conversion lamps takes as much time as other comparable electrical and electronic equipment. Prerequisite for the development of such products is

market demand. Currently this is not the case, so the efforts would end up in higher costs than earnings. It is also much easier to produce different fluorescent lamp types and wattages due to the big similarity of phosphors and components compared to development and production of the full range of lamps in LED technology.

Please note that answers to these questions are to be published as part of the available information relevant for the stakeholder consultation to be carried out as part of the evaluation of this request. If your answers contain confidential information, please provide a version that can be made public along with a confidential version, in which proprietary information is clearly marked.