1. The applicants requested an exemption, proposing the following wording formulation: “Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb)".

a. Do you agree with the applicant’s proposal combine the three applications into a single exemption?

Yes, we completely support LightingEurope’s proposal to consolidate the 3 existing exemptions into just one.

b. Do you agree with the scope of the exemption as proposed by the applicant?

Yes.

c. Please suggest an alternative wording and explain your proposal, if you do not agree with the proposed exemption wording.

Not applicable.

d. Please explain why you either support the applicant’s request or object to it. To support your views, please provide detailed technical argumentation / evidence in line with the criteria in Art. 5(1)(a) to support your statement.

We support the request because all 3 currently existing exemptions (18b, 18(b)-1, 34) have basically the same background. A simple substitution of lead doped BSP phosphor for the very specific requirements is not currently practicable through a change in lamp design or through the use of alternative phosphors elsewhere.

For more details we refer to the well-founded analyses in the “Request to renew Exemption 18b, 18(b)-I and Annex IV 34” of LightingEurope of 20 January 2020.

2. Please provide information concerning possible substitutes or developments that may enable reduction, substitution or elimination, at present or in the future, of “Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb)”.

a. In this regard, please provide information as to alternatives that may cover part or all of the applicability range of “Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb)”.

In our opinion, there is currently no real reasonable alternative that could substitute the special requirements of lead-doped BSP phosphor material. A potentially usable cerium-doped YPO alternative phosphor has unfortunately also disqualified itself for the reason that the ratio for UVA and UVB radiation output is different to lead-doped BSP phosphor and therefore the needed compatibility is not given. There are also some other reasons which prevent YPO for being a practical substitution candidate (for example a lack of efficiency evidence for medical applications, availability as a pure rare earth phosphor and much higher costs). It would no longer be possible to assume that the tanning market, therapeutic lamp users (PUVA lamp) would be supplied in a permanently safe and, from a price point of view, economical manner.

High-pressure lamps as a possible alternative require a completely different tanning device design and therefore cannot be used as replacement in existing devices for low-pressure lamps. Corresponding tanning systems with high-pressure lamps (for example face tanning units) must be equipped with appropriate filter disks for safety reasons (too high UVC and UVB output) and are inferior to low-pressure lamps with BSP phosphors in terms of energy efficiency and thermal power loss. They are also significantly more expensive and not suitable for medical phototherapy appliances to our knowledge in the foreseeable future.

Theoretical also LED-technology could be a possible option for replacing lead-doped BSP phosphor for tanning and phototherapy. However, no specific LED solution is known at this time that would be suitable for general use / replacement business for the corresponding use cases of the exemptions on the market.

b. Please provide quantitative data as to application specifications to support your view.

For more details we refer to the well-founded analyses in the "Request to renew Exemption 18b, 18(b)-I and Annex IV 34" of LightingEurope of 20 January 2020. However, if further data is required, we will be happy to provide our own comparative reports of lamps of the same design with lead-doped BSP and lead-free YPO fluorescent material.

3. Please provide information as to research initiatives which are currently looking into the development of possible alternatives for some or all of the application range of "Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb)".

a. Please explain what part of the application range is of relevance for such initiatives (in what applications substitution may be possible in the future).

It is difficult for us to make a well-founded statement on this. This question should rather be addressed to specialized research institutes. But we assume that there are only few chances regarding the development of alternative lead-free phosphors for the corresponding applications. Probably, the perspective will be to research suitable UV-LEDs.

b. Please provide a roadmap of such on-going research (phases that are to be carried out), detailing the current status as well as the estimated time needed for further stages.

We are a medium-sized (contract) manufacturer and see ourselves unable to present a detailed roadmap of such substitution or elimination researches in the short time available. Basic researchers, who are familiar with possible alternatives, should be able to make clearly detailed statements here.

4. As part of the evaluation, socio-economic impacts shall also be compiled and evaluated. For this purpose, please provide details in respect of the following:

a. Please estimate possible amounts of waste to be generated through a forced substitution should the exemption not be granted. In this respect, please clarify whether devices placed on the market before the 22 July 2021 could still be serviced through the spare parts provision stipulated in the Directive under Article 4.

It can be assumed that due to the limited compatibility and other negative impacts of lead-free alternative replacements the most tanning device types placed on the market before the 22 July 2021 would no longer be in conformity with CE regulations. After interpretation Article 4 of the directive a spare parts supply of tanning devices with corresponding lamps is not given from our point of view, if the extension of the exemptions should no longer be granted. A defect or end-of-life tanning lamp with BSP phosphor in a tanning device per se cannot be repaired or reused and must be replaced by a new lamp. In a worst-case scenario, all existing tanning devices that are currently operated with lamps with BSP phosphor would have to be disposed of.

b. Please estimate possible impacts on employment in total, in the EU and outside the EU, should the exemption not be granted. Please detail the main sectors in which possible impacts are expected – manufacture, supply chain, retail, etc.

Should UV lamps with BSP phosphor, which fall under the exemptions of Annex III 18(b), 18(b)-1 and Annex IV 34, no longer be available, several economic sectors could be severely affected, as it is currently not technically and/or financially feasible to replace or retrofit the existing equipment with effective and compatible alternatives.

In addition, the discontinuation of this product portfolio would mean massive economic and personnel cuts for our company, as this decision would probably result in a relocation of production and sales to countries outside the EU with less restrictive regulations.

c. Please estimate additional costs associated with a forced substitution should the exemption not be granted, and how this is divided between various sectors (e.g. private, public, industry: manufacturers, suppliers, retailers, end-users).

As we are a (contract) manufacturer, a de facto ban on the lamps in question by not renewing these exemptions would have drastic consequences for our company, ranging from the closure of dedicated departments to the continued existence of the entire company.

As there will probably be no adequate alternatives for some applications of the current exemptions in the foreseeable future, an impending ban could also have very negative impacts on the distributers, users (e.g. tanning salons) and end users of these special lamps.

5. Please provide any further information and/or data that you think is of importance to substantiate your views.

We as a manufacturer of sun tanning lamps and medical phototherapy discharge lamps have already submitted the Exemption Request Form for Annex III exemptions 18(b) and 18(b)-1 to the EU Commission in due time on January 13, 2020 (see annex).

From our point of view, a non-renewal of the exemptions is very problematic for the European Economic Area due to the unsuitable alternatives (both technically and economically).

There is a concrete risk that the production of the corresponding products will be relocated outside the EU and the users of these specialised products will lose their competitiveness due to a lack of viable and affordable alternatives.

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