Polish Association of Lighting Industry Comments to Annexes III and IV Directive 2011/65/EU (RoHS)

Warsaw, 5 October, 2015

1) The reduction in mercury content will reduce the lifespan of fluorescent light sources thus increasing the replacement frequency and waste generation

The development of LED sources advances in a very dynamic fashion. This is due mainly to environmental and energy savings-related factors. The same factors have a noticeable impact on modification of fluorescent light sources. A good example of that is a significant (by ca. 90%) reduction in the quantity of mercury contained within fluorescent lamps over a period of 30 years.

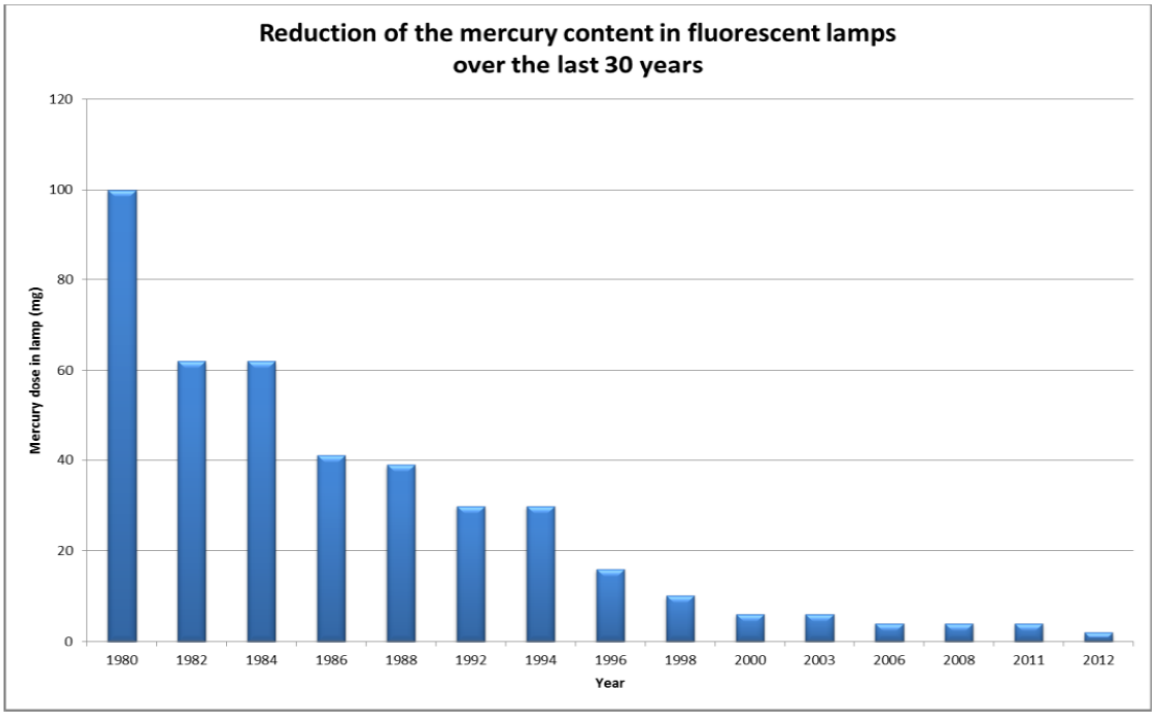

Figure 2: Mercury content of fluorescent lamps

It should be kept in mind that operation of fluorescent discharge lamps is based, among other factors, on the presence off mercury vapors. Although technological advances facilitated reduction in the quantity of mercury in fluorescent light sources, there is a certain threshold value responsible for a significant drop in lamp's lifespan.

Lifespan of light sources is a very important parameter in terms of environmental protection. Frequent replacement of light sources generates waste that has to be utilized as well as additional costs and demand for additional light sources.

2) The availability of fluorescent light sources has a significant influence on the development of LED sources

It was only in recent years when the efficacy of LED sources became high enough to be comparable with that of the fluorescent lamps. The development of LED sources depends on the availability of

fluorescent lamps. This is due mainly to the possibility of changing one lighting system to another as well as to the possibility to increase the energy savings. Across the world, most households as well as the entire services sector continue to use fluorescent fixtures due to their low costs, high efficiency, long lifespans, availability as well as a wide range of models and shapes. The demand for higher energy savings triggered the development of LED sources, with fluorescent lamps continuing to be the main points of reference. Imposing restrictions on fluorescent sources may lead to a halt in the development of LED sources.

3) Fluorescent and LED lighting systems are not inter-compatible

Changing the fluorescent lamp-based systems to LED-based systems is associated with the need to replace the entire electrical system (power balance issues) as well as with the need to replace the fixtures, change number of lighting points, change and modify facility ceilings, as well as redesign the entire system and employ a sufficient number of designers and engineers. In addition, changes in lighting systems generate waste that has to be utilized.

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