EUROPEAN LAMP COMPANIES FEDERATION

Brussels, 31th March 2008

Ms Stephanie Zangl
Öko-Institut e.V.
Merzhauser Str. 173
79100 Freiburg
Germany

RE: ELC submission to RoHS exemptions review

Dear Ms Zangl,

Hereby we would like to submit the European Lamp Companies Federation (ELC) contribution to the stakeholder consultation on adaptation to scientific and technical progress under Directive 2002/95/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment for the purpose of a possible amendment of the Annex.

Our submission includes comments concerning the following exemptions: 1, 2, 3, 4, 5, 6, 7, 9a, 14, 15, 16, 17, 18, 19, 23, 24 and 26 (each exemption is attached in a separate file).

With kind regards,

Gerald Strickland
Secretary General

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ELC submission to RoHS exemption #4

#	Question	**Exemption #4**
		Mercury in other lamps not specifically mentioned in this Annex
1	Please specify the different lamp types that use mercury, including the technology used, the amount of mercury contained (also mercury per burning hour), the function of mercury in the lamp, the lifetime of the lamp and its energy consumption.	HID lamps for general lighting and special purposes; some fluorescent lamps with specific shapes (like U-shape and circular lamps)
	technology	HID: high pressure gas discharge lamps FL: low pressure mercury discharge
	amount of mercury and lifetime	HID: amount of mercury from 5 mg up to 250 mg for general lighting, depending on wattage, lifetime, design etc. FL: amount of mercury: average of 15 mg per lamp, life time between 7500 and 10000 hours;
	function of the mercury	HID: High pressure gas discharge lamps emit radiation directly as visible light. In this type of lamp the mix of different element atoms in the hot gas plasma, each emitting at specific wavelengths, determines the colour characteristics of the lamp as a whole as well as the quality of colour rendition properties. Most gas discharge lamps need at least one free electron combined with a high pulse start lamp operation. Usually minute quantities of materials like tritium or krypton-85 are applied either in the lamps themselves or in starter devices as a source for electrons. FL: see fluorescent lamps for special purposes (exemption 3)
	energy consumption	HID: up to 20000 W FL: see fluorescent lamps for special purposes (exemption 3)
2	What is the total amount of mercury put on the market in the EU annually and currently in use for each of these different mercury-using lamp types?	HID: approximately 1.2 tons per year FL: included in exemption 3
3	For which of these lamp types is the use of mercury avoidable (e.g. through substitution of the substance itself or through use of other lamp technologies not containing mercury)?	none of the lamp types
	Where has a reduction of the amount of mercury or a full substitution already begun or been completed? Please describe alternatives in (technical) detail.	HID: Today's HID application needs high efficacy. Mercury free HID lamps are much less efficient. Reduction of mercury changes the complete lamp performance and implies the need of different lamp driver. FL: included in exemption 3

ELC submission to RoHS exemption #4

4	Please specify the maximum amount of mercury contained in each lamp type today and how it will decrease over time due to technological progress. Support your statement with appropriate documentation such as a roadmap or results of tests and research activities. What is the currently best available technology with regard to lowest mercury content in each lamp type?	HID: this information depends on the application (wattage, lamps size etc.) and is not available in ELC due to anti-trust compliance; please refer to individual companies FL: included in exemption 3
5	Please provide appropriate information on the benefits of the use of mercury in lamps, compared to lamps not using mercury; especially with regard to energy savings and hence reduction of mercury emissions during electricity production.	Energy efficiency: Luminous efficiacy is very high compared to filament technologies. For HID no mercury-free alternatives are available to be used as retrofit technology. Taking into account the amount of mercury released during electricity generation mainly from coal fired power stations, fluorescent lamps, do reduce the total amount of mercury from a life cycle perspective compared to filament lamps which themselves are mercury free. This is due to the fact that the former use less electricity to produce the same amount of light. In practice, this is applicable to other gas discharge lamp types too. HID are in the scope of EU Directive 2002/96/EC - WEEE. Take back systems are installed in all EU Member States, end users can bring back the lamps free of charge. According legislation the mercury shall be removed of gas discharge lamps.
6	Assuming that in the EU a total phase-out of mercury is possible for the use in lamps, please specify until when such a phase-out would be completed for which application.	Not feasible in these lamp types.
7	Assuming that the existing exemptions do not anymore reflect the status of best available technologies and that an exemption for the use of mercury in lamps in future Adaptation to scientific and technical progress under Directive 2002/95/EC Stakeholder consultation - Specific questions - would only be limited to very specific cases, please provide a wording proposal (which may also include an expiry date for the exemption of a certain application).	Mercury in other lamps not specifically mentioned in this Annex
8	Please provide an opinion on the recommendations for limits of mercury content included in the preparatory studies for implementing measures under the Ecodesign framework Directive (2005/32/EC, "EuP").	See above.