

Brussels, 31<sup>th</sup> 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

## ELC submission to RoHS exemption #5

| #   | Question   | Exemption #5  |
|-----|--|---|
|     |  | Lead in glass of cathode ray tubes, electronic components and fluorescent tubes   |
| 1   | Please specify in detail the “electronic components” in the wording above where lead is used in glass.   | <p>Lead in glass of electronic components is used by lamp manufacturers for electronic parts e.g. ballasts/control gears. If component industry is able to provide lead-free alternatives, lamp industry is able to use them.</p> <p>Lead in glass of glow switches as components of non-integrated compact fluorescent lamps or glow-switch starters.</p> <p>Lead in fluorescent tubes:<br/>According to the ELC the original proposal for the exemption was that lead containing glass is needed for exhaust tubes &amp; flares of fluorescent lamps.</p> |
| 2   | Please state the amount of lead used per application, the lead content in the homogeneous material, the annual production volume as well as the number of applications put on the EU market annually in applications falling under the scope of RoHS for |   |
| 2.a | cathode ray tubes  | Information not available in the ELC  |
| 2.b | electronic components (if possible specified in more detail, see question 1)   | Information not available in the ELC  |
| 2.c | fluorescent tubes.   | Up to 250 tons  |
| 3   | Please provide detailed information about the specific function and related performance criteria of lead in glass for  |   |
| 3.a | cathode ray tubes  | Not applicable for our industry.  |
| 3.b | electronic components (if possible specified in more detail, see question 1)   | <p>For standard electronic components there are no specific requirements differing from those of other electronic manufacturers. If lead-free components would be available, lamp manufacturers are able to use them. For many affected components so far no lead-free alternatives are available.</p> <p>Lamp-specific electronic components with lead in glass: for starters and glow switches lead-free alternatives have been developed and are available and in use in the meantime.</p>   |
| 3.c | fluorescent tubes.   | <p>ELC claimed that lead containing glass was needed in flares and exhaust tubes for production process reasons. Lead-free alternatives have been developed and installed. For glass production glass from lamp recycling is used for new products. As this glass contains differing amounts of lead a max. content of 0,2 % lead (wt) can be contained in fluorescent lamps. Use of recycling glass reduces energy consumption for glass production significantly ( -30%).</p>   |
| 4   | What technical characteristics do substitutes need to fulfil as a minimum requirement?   | <p>Standardized Electronic components:<br/>There are no lamp-specific requirements differing from those of other electronic manufacturers. If lead-free alternatives would be available lamp manufacturers are able to use them.</p> <p>Fluorescent tubes:<br/>Lead-glass has been phased out.</p>  |

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| 5   | Please provide evidence that manufacturers have put effort in research on alternatives for lead. What are the alternatives to lead and which ones are (likely to be) used as substitutes? Are there any results about strengths and weaknesses expressed in results relating to (technical) performance criteria? | Lamp Manufacturers are in the process of phasing out lead-glass from fluorescent lamps and lamp-specific components (starters, glow switches). Small amount of lead in glass originate from impurities in recycling glass up to 0.2% wt. This can not be "substituted". A complete ban of lead in fluorescent lamps would hamper the use of recycling glass in new lamps. |
| 6   | Are manufacturers still investigating alternatives?   |   |
| 6.a | If yes, please provide a roadmap or similar evidence showing until when they intend to replace lead in glass in the applications mentioned above.   | see above   |
| 6.b | If no, please explain and justify why no further research has been undertaken against the background that the RoHS Annex is subject to regular revisions.   |   |
| 7   | Assuming the current exemption will be given an expiry date, what date do you think is technologically feasible for industry?   | 18 months after publication   |