

## Questions

<p>1. Please state whether you either support the applicant's request or whether you would like to provide argumentation against the applicant's request.</p>	<p>The CCLA fully supports the ESF request.</p>
<p>a. Do you have any remarks / further input in this respect? In both cases provide detailed technical argumentation to support your statement.</p>	<p>The ESF touched on the economic and employment aspect of a refusal for exemption. We would like to add that the use of cold cathode lamps specifically for architectural lighting has been a European export product for many years. The biggest user market being the Middle East. A ban on it's manufacture would mean the closure of a number of long standing specialist manufacturers throughout Europe, but concentrated in the UK, and the loss of that revenue. The UK manufacturers have specialised in cold cathode lighting and have recently formed the Cold Cathode Lighting Association to</p> <ul style="list-style-type: none"> <li>a) help to establish a favourable operating environment,</li> <li>b) promote the industry,</li> <li>c) provide a forum for discussion on non-competitive issues,</li> <li>d) provide information to assist it in it's business</li> <li>e) represent it's views, and</li> <li>f) improve it's reputation and environmental performance.</li> </ul>
<p>b. The definitions provided by the applicant on HLDT cited from the standards EN 50107-1 and prHD 60364-7-719 also apply to other discharge tubes and should thus not be used to solely define HLDT. Do you know of any other commonly agreed definition for HLDT that would allow differentiating them from other CCFL? Or would it be sufficient to say that HLDT are defined through their handcrafted production in contrary to the industrial production of other CCFL?</p>	<p>We are not aware of "any other commonly agreed definition for HLDT that would allow differentiating them from other CCFL". They are handcrafted and tailor made, rather than the industrial mass produced lamps for display backlights etc. The lamps are made to fit the shape of the architecture or enclosure they are being made for. They are, in general larger diameter than CCFL for backlighting displays etc., but again this is not a complete definition.</p>
<p>2. Currently there is no substitution available. Furthermore, in the in the last 10 years the lamp industry supported are several programmes to reduce the amount of mercury per HLDT. However, no evidence was provided. Is there any supporting / contradicting evidence that you can provide?</p>	<p>Agreed – there is no current substitute for all applications. LED has substituted in many applications where it is suitable.</p> <p>Mercury reduction:-</p> <ul style="list-style-type: none"> <li>a) In 2006 electrodes with mercury "built in" were introduced to the market. Some were used in architectural HLDT and became dull due to lack of mercury after only about 8500 hours running. With 19 mg per electrode and 2 electrodes per lamp, we therefore know that 38 mg is definitely not enough.</li> <li>b) Unfortunately any other evidence would be based on personal reports and therefore hearsay. The only documented evidence the writer is aware of became unavailable in 2006 when a raw material</li> </ul>

	<p>supplier closed. Some mercury content experiments were being carried out there, but the results are lost. I understand that relatively small lamps were failing in about 16000 hours with 76 mg present. Note that this is a very short life for an HLDT.</p> <p>c) In the absence of experimental evidence of the amount of mercury necessary, the CCLA has agreed to commission an independent practical scientific study of the amount of mercury needed for large, high running current, indoor lamps.</p>
<p>3. The same applies to the statement that “In general, when HLDT are to be repaired (or an old installation is dismantled), the complete tubes are taken back to a Neon glass shop” and the mercury is then recycled. However, it is not clear whether there are take-back agreements / binding regulations (e.g. under the WEEE Directive) to support this or whether the fate of waste HLDT is not regulated and thus no evidence can be given on the proper waste treatment of the contained mercury. Is there any supporting / contradicting evidence that you can provide?</p>	<p>The lamps are recycled under the WEEE Directive via the Special Waste Regulations. The industries in each European country have different means to achieve this.</p>
<p>4. The applicant does not propose any expiry date, which means that the exemption would have a maximum validity until 2021. Do you agree with this expiry date, or would an earlier expiry be feasible in the face of upcoming mercury-free HLDT solutions?</p>	<p>There are no upcoming mercury-free HLDT solutions. In common with the hot cathode (fluorescent) lamp industry no substitute for mercury vapour has yet been found that reproduces the efficacy of HLDT. Although LED has made substantial inroads in many (mainly signage) applications, LED cannot reproduce the combined colour range, linearity and efficacy of HLDT, particularly in lighting applications. We support the exemption having the maximum validity until 2021. Given the long life of cold cathode lamps it will take that long to life test alternatives.</p>
<p>5. The wording suggested for this new exemption would be “Mercury up to 100 mg per tube in handcrafted luminous discharge tubes (HLDT) used for signs, decorative lighting and light-artworks, in fixed or portable installations”. Are there any amendments you would like to suggest?</p>	<p>Insert “tailor made” before handcrafted, and delete the word “decorative”.</p>
<p>6. Do you consider any other aspects or details to be of importance, which have not yet been taken into account?</p>	<p>We believe the ESF application was thorough.</p>
<p>Finally, please do not forget to provide <b>your contact details</b> (Name, Organisation, e-mail and phone number) so that Öko-Institut/Fraunhofer IZM can contact you in case there are questions concerning your contribution</p>	<p>Michael Hall, Secretary, Cold Cathode Lighting Association. coldcathodelighting@gmail.com. Based in the UK. 07929888250.</p>