

**Mława 2009-07-27**

**Ministry of Economy**  
**Department of Economic Regulations**

**Subject : Transition Period for Exemption#25 at the Annex to the RoHS Review**

Dear Sirs / Madams:

Thank you for the opportunity to comment on the RoHS Review.

LG Electronics (LGE) plays an active role in world markets with its creative global business policy. As a result, LGE controls 114 local subsidiaries worldwide with roughly 82,000 executives and employees. LGE's technologically advanced PDP(plasma) TVs boast also stylish design and advanced technologies that optimize picture quality with 25% shares in EU PDP TV market in 2009.Q1. Since 2006 We made about 3 million PDP panels and TVs in Korea (ROK), Mexico, and Poland. LG Electronics Mława Sp. z o.o (LGEMA) is producing about 1 million PDP TVs annually with about 1600 employees, and exports them to EU.

Nowadays, COMMISSION OF THE EUROPEAN COMMUNITIES is under review the exemptions on RoHS (Directive 2002/95/EC on Restrictions of the use of certain Hazardous Substances in Electrical and Electronic Equipment.) We can find below the information that a Commission officer gave to Digital Europe (8 July 2009);

[Regarding the draft on current exemptions, it is being finalized. The basic draft was sent to the TAC for comments, then redrafted on the basis of those comments and, then, sent again to Member State (MS). The last version should be finalized this week or next week. MS will have 2 weeks to comment. Then, only, the inter-service consultation will start (in the summer). MS have more interest to amend it than to the reject it. In September, there will be a vote in TAC, then the scrutiny of the European Parliament during 3 months and then the publication early next year.]

However, according to the reviewing Draft (Attachment 2) for the COMMISSION DIRECTIVE from now, the Draft has unclear wording, no expiry date, or no transition period for current Exemption#25 "exemption of using lead oxide in PDP panel". Then, that means it might be prohibited to use lead oxide in PDP panel from February/March 2010. LGE and TV industries of Poland may have some serious business losses.

So, LGE requests that Poland Government inform the issues to TAC, or MS, the consultant (Oeko Institute), and amend it as bellows:

- Lead oxide in surface conduction electron emitter displays (SED) used in structural elements; notably in the seal frit and frit ring.

- Lead oxide in plasma display panels (PDP) used in structural elements; notably in the rear glass dielectric layer, the seal frit and frit ring as well as in print pastes until 30 June 2010, and for spare parts for the repair and reuse of equipment put on the market before 1 July 2010

Please refer to the Annex A "Expiry Date or Transition Period for Exemption#25 on RoHS" as the reason why we request to amend it in details.

LGE are trying to do all our efforts to executing and establishing a global environment strategy by reflecting the eco-friendly needs on our management activities and product.

We appreciate your consideration for these requests and look forward to ongoing collaboration.

Sincerely,

Bong, Hwan Jun  
Vice President,  
LG Electronics Mlawa Sp. z o.o  
Mlawa, Poland

Kim, Heui Seob  
VP, PDP R&D Lab.,  
LG Electronics PDP Division HQ  
Rep. of Korea

#### **Attachments**

1. COMMISSION DECISION of 12 October 2006 for Current Exemption#25 "file49468.pdf"
2. [Draft]Commission Directive 2002/95/EC "Draft\_Review\_EN\_clean.doc", 26.3.2009
3. Summary of the discussions in the 1<sup>st</sup> TAC meeting (07.4.2009) "TAC meeting notes.doc".
4. UK Government consultation on EC proposals to recast the EC Directives on WEEE and on RoHS "file50817.pdf"

cc: National Economic Chamber of Electronics and Telecommunication

cc: Öko-Institute.V. - Institute for Applied Ecology (rohs.exemptions@oeko.de)

## **Annex A. Expiry Date or Transition Period for Exemption#25 on RoHS**

### **Current Exemption#25 at the Annex to the RoHS Directive**

*“Lead oxide in plasma display panels (PDP) and surface conduction electron emitter displays (SED) used in structural elements; notably in the front and rear glass dielectric layer, the bus electrode, the black stripe, the address electrode, the barrier ribs, the seal frit and frit ring as well as in print pastes”*

### **Review Draft - Adaptation to scientific and technical progress**

The last Technical Adaptation Committee (TAC), chaired by the European Commission and comprising of Member State representatives, was held on 7 April 2009. We can find below Draft at that time;

#### **4.31.3 Critical review and recommendation**

*... Therefore, we recommend continuing the exemption but taking a wording which narrows the scope considerably and setting the 31 July 2014 as expiry date.*

*[Lead oxide in surface conduction electron emitter displays (SED) used in structural elements; notably in the seal frit and frit ring.]*

### **Issue**

There is no expiry date in PDP in the Draft while other exemptions have expiry dates. No transition period and unclear wording can make industry difficult prompt follow-up new regulation or decision and confusing because Implementation time is necessary for qualification by the TV manufacturer for final product qualification and for some business step like investment, inventory.

### **LG Electronics' Efforts and Progress**

LGE has endeavored continuously in order to develop the lead oxide-free materials to substitute the lead oxide in PDP panel until now. As the result, only 71 grams in a PDP panel be used lead oxide now, but, we have a target to “zero” in June 2010.

Application[Parts]	Amount of Lead oxide in each PDP panel (g)			
	2007	2008	2009	June 2010
front glass dielectric layer	2	2	0	0
rear glass dielectric layer	55	55	55	0
address electrode	1	1	0	0
barrier ribs	40	0	0	
seal frit	15	15	15	0
frit ring	1	1	1	0
Total	114	74	71	0

\* Note. Amount is the average of 42"/50" per unit

Commission decision for Exemption#25 on RoHS was published in 14 October 2006. Then, according to the decision “(4) Pursuant to Article 5(1)(c) of Directive 2002/95/EC each exemption listed in the Annex must be subject to a review at least every four years or four years after an item is added to the list. – Attachment 1”, LGE meantime established long-term substitution plans with the best technologies which were more environmental-friendly, and some parts were already substituted to new material with lead oxide-free, and LGE has been developing as following steps for the others.

1. Research Technical Characteristics of materials required (completed)
2. Possible substitution material investigation and sourcing (completed)
3. Test / Optimization of substitutional candidate materials (completed)
4. Production Line Investment and Quality Verification for PDP panels (undergoing)
5. Qualification/Approval by Set makers (annually on common) (plan)
6. Production of PDP panels and PDP TVs (plan)

It takes about 5 or 6 months PDP panels to be qualified by the TV manufacturers for final product approval. New TV set is usually placed on a market one time every year. In EU television market, almost TV manufacturers launch new models with new design and features between March and May. Old models, which might be very hard to change panels, also are shifted 100% to new models in around July. According to the RoHS review schedule, there is any possibility of entering into force in the early February 2010. In the case, it is very difficult for TV makers to cope with the prohibition date. Even LGE do our best, it is expected that the best placement time is from March 2010 with start some new models, and to around June due to shifting old models.

### **Business Impact of TV industry in Poland**

In this case, the production decrease at LGE Mława plant or some suppliers in Poland might be inevitable for about 5 months from February to June 2010 with 500,000 TVs, 530 million EUR sales losses, and the employment may be able to be temporary abridged.

### **Request / Recommendation**

Also, if the corresponding exemption withdraws early, within the review duration which was referred from Commission decision, though the review or decision is legal or not, industries will confront of a lot of difficulties to substitute hazardous substances effectively, systematically and voluntarily in advance in the future. Finally, LGE requests that Poland government inform the issues to TAC, or MS, the consultant (Oeko Institute), and try to amend it as bellows:

- Lead oxide in surface conduction electron emitter displays (SED) used in structural elements; notably in the seal frit and frit ring.

- Lead oxide in plasma display panels (PDP) used in structural elements; notably in the rear glass dielectric layer, the seal frit and frit ring as well as in print pastes until 30 June 2010, and for spare parts for the repair and reuse of equipment put on the market before 1 July 2010

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