Summary of European Environmental Bureau (EEB)/ Green Purchasing Institute (GPI) recommendations of maximum mercury content in laps (RoHS Annex review)

31 August 2009

Exemption as per draft EC decision 27/7/2009		Proposal EC/consultant [maximum value][mg]	Proposal EEB/GPI [maximum value][mg]	Remarks
1. Mercury in single capped fluorescent lamps not exceeding (per burner):				
1 (a)	For general lighting purposes < 50W	3.5	2	It needs to be clarified that Cold Cathode CFLs fall under this category on basis of wattage and not under special purposes
1 (b)	For general lighting purposes ≥ 50W and < 150	5	4,5	
1 (c)	For general lighting purposes >150W	15	No specific recommendation proposed	To that stage we have not found any CFLs with wattages that high. Nevertheless considering the limits for the other categories, 15mg appears high.
1 (d)	For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm	7	7	We have no further comments on those lamps. Recommendation for exemption as proposed (7 mg) could be accepted. However our limited data shows that square CFLs can be made with 4mg.
1 (e)	For special purposes:	5	3	It needs to be clarified that Cold Cathode CFLs do NOT fall under this category of special purposes
2 (a) Mercury in double-capped linear fluorescent lamps for general purposes not exceeding:				
2 (a) (1)	Tri-band phosphor with normal lifetime<9 mm (e.g. T2)	4	No specific recommendation proposed	For the time being the EC proposed levels could be accepted. Note: the exemption should be '≤' rather than '<', otherwise the 9mm (T2) as such is not covered.
2 (a) (2)	Tri-band phosphor with normal lifetime > 9mm and ≤ 17 mm (e.g. T5)	3	2	
2 (a) (3)	Tri-band phosphor with normal lifetime > 17 mm and ≤ 28 mm (e.g. T8)	3.5	2	
2 (a) (4)	Tri-band phosphor with normal lifetime > 28 mm (e.g. T12)	3.5	No specific recommendation proposed	We have no further comments on those lamps. Recommendation for exemption as proposed (3.5. mg) could be accepted.
2 (a) (5)	Tri-band phosphor with long lifetime.	5	3	

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2 (b) Mercury in other fluorescent lamps not exceeding:				
2 (b) (1)	Halophosphate all shapes	8	No exemption or 8	
2 (b) (2)	Non-linear tri-band phosphor lamps > 17 mm (e.g. T9)	15	6	The example of T9 may not be correct. T9s are halophosphates and for all shape halophosphates we have proposed no exemption or 8 mg – see above). Even ELC is talking about halophosphate lamps in relation to the T9s. Therefore the example there should rather be T8 and the limit should be reduced.
2 (b) (3)	Lamps for other general lighting and special purposes (e.g. induction lamps)	15	10 mg per lamp, unless otherwise specified. For induction 7mg For long length lamps 8mg Applications: Appliances, exit signs, neon laptop and LCD screens should be mercury free.	Special purpose fluorescent lighting should be carefully defined to prevent this category from being abused. 1. Special purposes need to be identified separately, and maximum limit of Hg shall not exceed 10 mg per lamp, unless otherwise specified. 2. Pet care lamps e.g. Aquarium lights, Cold climate, UV (blocks UV lights), should be seen under the straight fluorescent lamps category and not be included in the definition of specialty lamps. Induction lamps should have a limit of 7 mg 3. No exemptions should further be allowed on exit signs and neon signs, which can use mercury-free neon or LEDs. 4. Long-length lamps (≥ 1800 mm) (e.g. long T8 fluorescents), should not be automatically considered special purpose lamps. They fall under the category of general purpose lighting in the manufacturers' catalogues, and should have their own limit of a maximum limit of 8 mg Hg/lamp. 5. Appliance lamps should not be included in specialty lamps, limits should be consistent with high-efficiency T5s and T8s (above) and look for opportunities to substitute by LEDs. We would therefore propose that for APPLICATIONS such as: for exit signs, neon, laptop and LCD screens, the following text should be included in the Annex: *Exemptions [1-7] above of this annex shall not apply to exit signs (containing housing, fixture and light source) and exit sign retrofit kits, neon signs, and laptop and LCD screens.*

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3	**Mercury cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) not exceeding mg per lamp:**			
3 (a)	**Short length (not over 500 mm)**	3.5	2	Mercury in laptop screens should be banned completely considering that most companies have already or are about to produce LED ones.
3 (b)	**Medium length (over 500 mm and not over 1500 mm)**	5	No specific recommendation proposed	We have no further comments on those lamps. Recommendation for exemption as proposed could be accepted.
3 (c)	**Long length (over 1500 mm)**	13	No exemption should be proposed	Since the product is still under development, no exemption should be allowed to ensure new products can be made without mercury, considering the advances of LED in the relevant categories of e-products.
4 (a)	**Mercury in other low pressure discharge lamps**	15		The lamps which will fall under this category should be listed to avoid confusion. An example could be neon lamps, for which we think that no exemption should be given since they can be easily replaced by LED.
4 (b) I.	**Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding in lamps with improved colour rendering index > 60**			
4 (b) – I (a)	P ≤ 155 W	30	25	
4 (b) – I (b)	155 < P ≤ 405 W	40	30	
4 (b) – I (c)	P > 405 W	40	40	
Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding in other High Pressure Sodium (vapour) lamps				Within the HPS category, the limits have been set for the entire category to accommodate the older technology rather than setting limits that can foster innovation. We are most concerned that the way the exemption is proposed, it appears that standard single burner HPS cycling lamps be allowed to have significantly more mercury than necessary under the proposed limits – largely because they are being lumped in with other specialty HPS models such the double-burner models – that typically have much higher mercury content levels

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4 (1) – I (d)	P ≤ 155 W	25	5	In our last submission of 3/4/2009 we have also proposed instead: Therefore for the low CRI category (CRI ≤ 60), we propose, instead, that **lower mercury limits be set on additional categories of HPS lamps: standard cycling (single burner) lamps ,and non-cycling** models • **HPS (cycling) lamps (excluding high-CRI and double-burner models) <= 150W, shall not contain more than 15 mg/ lamp** • **HPS (cycling) lamps (excluding high-CRI and double-burner models) > 150W shall not contain more than 30 mg/lamp** **Therefore the ECs & Consultant's currently proposed limits for low CRI HPS should apply only to double burner models.** Finally, **we further urge the Commission and Member States to set separate, lower mercury limits for Non-cycling HPS lamps**, because this subcategory of HPS lamps contains dramatically lower mercury levels. **HPS Non – cycling, below 400W , shall not contain more than 10 mg Hg** **HPS Non cycling, above 400W, shall not contain more than 25 mg.**
4 (a) – I (e)	155 < P ≤ 405 W	30	10	
4 (a) – I (f)	P > 405 W	40	25	
4 (b) – II	**Mercury in High Pressure Mercury (Vapour) lamps except for general lighting (HPMV)**	Blanket exemption – no limit.	No exemption	We would rather propose, as the Consultant mentions, that the exemption on special purpose HPMV lamps is also deleted and industry submits separate notification for exemption if these are still needed. This measure could take place immediately and therefore the exemption is not needed.
4 (b) – III	**Mercury in Metal halide lamps (MH)**	Blanket exemption – no limit.	For <25W: 2.5 For >25W, <100W,: 10 For >100W, <200W: 15 For >200W, <400W: 25	
4 (c)	**Mercury in other discharge lamps for special purpose not specifically mentioned in this Annex**	Blanket exemption – no limit.	No specific recommendation proposed	