Questionnaire

Exemption request 4 under Directive 2002/95/EC

"Restriction of exemption 1 to non-liquid mercury"

Neonlite / Megaman has requested to change the current exemption 1 on the use of mercury in Compact Fluorescent Lamps (CFLs) in a way that liquid mercury in CFLs in no longer allowed. No specific wording has been proposed.

Background

Mercury is currently exempted from the substance ban in the RoHS Directive for the use in compact fluorescent lamps (CFLs) as it is technically necessary for the basic functioning. However, different amounts and forms of mercury can be used. Currently only the maximum allowed amount of mercury is regulated in the respective RoHS exemption 1. No provision has been given with regard to the form in which mercury should be used (e.g. liquid, as pill or in the form of an amalgam).

Neonlite / Megaman now requests that liquid mercury should be excluded from the exemption. The exemption request does not explicitly mention it but it can be understood that the request targets at an exemption to be only valid for amalgam mercury.

The applicant justifies his request with the following arguments:

CFLs typically contain an average of 3 mg mercury. If this amount is contained as liquid mercury it could potentially be hazardous to human beings and the environment in the event of a lamp breakage and in the waste phase. It is stated that today only a small amount of waste lamps is properly separately collected and treated but that the majority ends up in landfills or waste incinerators thus leading to uncontrolled mercury emissions. In the case mercury is present in CFLs as amalgam it is said to be easier and safer to handle at disposal thus avoiding the risk of land and water contamination. Furthermore, the applicant states that in the event of lamp breakage at room temperature the mercury is chemically contained in the metal alloy when used as amalgam and hence will not escape.

Additionally the applicant argues that with the use of amalgam mercury dosage during manufacture is more accurate thus enabling better lamp quality and an overall reduction in mercury content per lamp. Furthermore, worker exposure is said to be less in comparison with liquid mercury.

For further details of the argumentation please refer to the applicant's documents at http://rohs.exemptions.oeko.info/index.php?id=90.

The following questions should be answered by any stakeholder wishing to comment on the request (e.g. with a view to support the justification with additional arguments or in case there is disagreement with the applicant's justification or request in general):

Questions

1. Can mercury amounts in CFLs lower than 3 mg be reached with other dosing technologies than amalgam? Please provide evidence.
2. Please provide third-party scientific evidence whether the use of amalgam reduces consumers' risk of exposition to mercury. Does the use of amalgam instead of liquid mercury or instead of other mercury dosing technologies result in lower emissions to the environment and thus lower mercury concentrations in the ambient air in case of lamp breakage?.
3. Please provide third-party scientific evidence that amalgam mercury is or is not safer for workers at the place of manufacture compared to other mercury dosage technologies.
4. Please provide up-to-date figures on the total amount of mercury put on the EU market annually through the use in CFLs and the potential reduction through an exclusion of liquid mercury from the use in RoHS exempted CFLs.
5. Please provide third-party scientific evidence that amalgam mercury is or is not safer for waste management operations outside dedicated treatment facilities compared to other mercury dosage technologies.
6. Please provide up-to-date figures for the amount of mercury used in CFLs in a liquid form in the EU. Is it still a relevant technology? Which types of CFLs does it concern? Is it used by several or only single manufacturers?
7. Does the use of the amalgam technology result in any other drawbacks?
8. Are there any other technical measures to reduce the risk of mercury exposition from CFLs for consumers, workers and the environment? What are potential risks and drawbacks related to such measures?
9. Are there any other points in the applicants' justification to which you do not agree or that you would particularly want to support? Please always provide fact based scientific evidence to support your contribution.

The applicant and stakeholders are invited to clarify the above questions as detailed as possible. In your contribution, please state which question number you are referring to.

Documentation provided by stakeholders including replies to the questions above should take the following points into consideration:

Please justify your contribution according to Article 5 (1) (b) RoHS Directive, i.e.

- Justification for exemption still given or not given anymore according to technical and scientific progress;
- Substitution of concerned hazardous substances via materials and components not containing these is technically or scientifically either practicable or impracticable;
- Elimination or substitution of concerned hazardous substances via design changes is technically or scientifically either practicable or impracticable.