

Questionnaire

Request for Exemption Annex II Directive 2000/53/EC

“Thermo-electric generator”

The following questions refer to the request for exemption submitted jointly by ACEA, JAMA, KAMA and CLEPA. The applicant and stakeholders are invited to clarify the following specific questions as detailed as possible. In your contribution, please state which question number you are referring to.

Questions to ACEA, JAMA, KAMA and CLEPA

- 1) Please quantify the specific potential of the Thermo-electric generator in comparison to other approaches to achieve the EU CO₂ target mentioned in your letter (new combustion engine concepts, reductions in vehicle weight, reductions in mechanical friction, improved aerodynamics and total energy management)?
- 2) The study being used to support your request for exemption (attachment no. 1) is quoted as a confidential document. Could you please check whether this study could be disclosed to the public, at least in parts?
- 3) Following attachment no. 2 of your contribution the potential to contribute to fuel reduction (and thus CO₂ emissions) is up to 1 – 3 %, depending on the driving profile and position in the exhaust system. Are there numbers related to standardised driving profiles (e.g. NEFZ)? What would be the minimum reduction of the Thermo-electric generator?
- 4) Is it possible to estimate minimum / maximum total amounts of PbTe used in thermo-electric generators according to expectations of market penetration?
- 5) What are your expectations concerning development of alternative materials assuming widespread usage of thermo-electric generators? Are there any roadmaps including milestones? On the one hand, in your letter a study is quoted that a replacement or removal of Pb-containing materials by material developments in the coming years is realistic. Contra wise attachment no. 2 states that the replacement or removal will be realised in approximately 10 years. Please concretise the schedule?
- 6) What might happen if during recycling processes encapsulation of PbTe in thermo-electric generators will be destructed? Are there any risk assessments taking into account the danger of cumulative effects, mentioned in attachment no. 1?
- 7) Please specify the methodological approach resulting in your conclusion that the benefits from fuel and CO₂ emission reduction outweigh environmental risks from PbTe?

Furthermore, the following general questions can be used to support the exemption request or taken as a basis for requesting an amendment or the discontinuation of the exemption:

- What is the application in which the substance/compound is used for and what is its specific technical function?
- What is the specific (technical) function of the substance/compound in this application?
- Please justify why this application falls under the scope of the ELV Directive (e.g. is it a finished product? is it a fixed installation? What category of the WEEE Directive does it belong to?).
- What is the amount (in absolute number and in percentage by weight) of the substance/compound in: i) the homogeneous material¹, ii) the application and iii) total EU annually for relevant applications?

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

- Please justify your contribution according to Article 4 (2) (b) (ii) ELV 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.
- Please provide sound data/evidence on why substitution/elimination is either practicable or impracticable (e.g. what research has been done, what was the outcome, is there a timeline for possible substitutes, why is the substance and its function in the application indispensable or not, is there available economic data on the possible substitutes, where relevant, etc.).
- Please also indicate if feasible substitutes currently exist in an industrial and/or commercial scale for similar use.
- Please indicate the possibilities and/or the status for the development of substitutes and indicate if these substitutes were available by 1 July 2003 or at a later stage.
- Please indicate if any current restrictions apply to such substitutes. If yes, please quote the exact title of the appropriate legislation/regulation.
- Please indicate benefits/advantages and disadvantages of such substitutes.
- Please state whether there are overlapping issues with other relevant legislation such as e.g. the Energy-using Products (EuP) - EuP Directive (2005/32/EC) that should be taken into account..

¹ Please refer to the FAQ document on RoHS and WEEE Directives available at http://www.europa.eu.int/comm/environment/waste/weee_index.htm

- If a transition period between the publication of an amended exemption is needed or seems appropriate, please state how long this period should be for the specific application concerned.

Stakeholder contributions shall be clearly marked “NOT FOR PUBLICATION” if they are not be posted as comments on the consultation website (http://circa.europa.eu/Public/irc/env/elv_4/library).