

## Consultation Questionnaire Exemption No. 7c-IV (renewal request)

### Exemption for *"Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors"*

#### Acronyms and Definitions

ELV	end-of-life vehicles
Pb	lead
STM	STMicroelectronics

#### Background

The Oeko-Institut and Fraunhofer IZM have been appointed within a framework contract<sup>1</sup> for the evaluation of applications for the renewal of exemptions currently listed in Annexes III of the new RoHS Directive 2011/65/EU (RoHS 2) by the European Commission.<sup>1</sup>

The objective of this consultation and the review process is to collect and to evaluate information and evidence according to the criteria listed in Art. 5 (1) (a) of Directive 2011/65/EU (RoHS II), which can be found under:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011L0065:EN:NOT>

STM et al. submitted a request for the renewal of the above mentioned exemption, which has been subject to a first completeness and plausibility check. The applicant has been requested to answer additional questions and to provide additional information, to be made available on the webpage of the stakeholder consultation (<http://rohs.exemptions.oeko.info/index.php?id=228>).

If you would like to contribute to the stakeholder consultation, please read the below summary of the exemption requests, and answer the questions further below.

#### Summary of the Exemption Request

The exemption request for this exemption was reviewed in 2009/2010<sup>2</sup> under directive 2000/53/EC (ELV Directive) and adopted to the annex of the ELV Directive. The applicant had requested the same exemption in the 2010/2011 under directive 2002/95/EC (RoHS 1), and it was adopted to the annex of the RoHS Directive.<sup>3</sup>

<sup>1</sup> Contract is implemented through Framework Contract No. ENV.C.2/FRA/2011/0020 led by Eunomia

<sup>2</sup> (Zangl, Stéphanie [Öko-Institut e.V.] et al. 2010) "Adaptation to scientific and technical progress of Annex II to Directive Adaptation Directive2000/53/EC (ELV) and of the Annex to Directive 2002/95/EC (RoHS): Final report - revised version," Final Report Öko-Institut e. V. und Fraunhofer IZM, accessed August 4, 2015, [http://elv.exemptions.oeko.info/fileadmin/user\\_upload/Consultation\\_2014\\_1/Ex\\_3\\_2010\\_Review\\_Final\\_report\\_ELV\\_RoHS\\_28\\_07\\_2010.pdf](http://elv.exemptions.oeko.info/fileadmin/user_upload/Consultation_2014_1/Ex_3_2010_Review_Final_report_ELV_RoHS_28_07_2010.pdf); or [https://circabc.europa.eu/sd/d/a4bca0a9-b6de-401d-beff-6d15bf423915/Corr\\_Final%20report\\_ELV\\_RoHS\\_28\\_07\\_2010.pdf](https://circabc.europa.eu/sd/d/a4bca0a9-b6de-401d-beff-6d15bf423915/Corr_Final%20report_ELV_RoHS_28_07_2010.pdf)

<sup>3</sup> (Zangl, Stéphanie, Öko-Institut e.V. 2011) "Adaptation to Scientific and Technical Progress under Directive 2002/95/EC: Evaluation of New Requests for Exemptions and/or Review of Existing Exemptions," Final Report Öko-Institut e. V. und Fraunhofer IZM,

The Commission followed the reviewers' recommendations and granted the exemption.

STM et al. request the exemption be renewed, though with minor changes in the wording in order to clarify the scope. Despite continuous investigations, a substitution technology is yet to be found and STM et al. see no prospects of finding it within the foreseeable future. According to STM et al., the reason for the exemption presented by the stakeholders in 2010 is still valid, and consequently the exemption needs to be continued.

For details, please check the applicants' exemption requests at:

<http://rohs.exemptions.oeko.info/index.php?id=247>

## Questions

1. STM et al. request the renewal of exemption no. 7c-IV of Annex III with the current wording:  
*"Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors"*
  - a. Do you agree with the scope and proposed formulation of the exemption as proposed by the applicant?
  - b. Please suggest an alternative wording and explain your proposal, if you do not agree with the proposed exemption wording.
  - c. Please explain why you either support the applicant's request or object to it. To support your views, please provide detailed technical argumentation / evidence in line with the criteria in Art. 5(1)(a).
  
2. Please provide information concerning possible substitutes or developments that may enable reduction, substitution or elimination, at present or in the future, of the Pb use in the scope of exemption no. 7c-IV;
  - a. In this regard, please provide information as to alternatives that may cover part or all of the applicability range of lead in high melting point solders;
  - b. Please provide quantitative data as to application specifications to support your view.
  
3. Please provide information as to research initiatives which are currently looking into the development of possible alternatives for some or all of the application range of lead exemption no. 7c-IV.
  - a. Please explain what part of the application range is of relevance for such initiatives (in what applications may substitution be possible in the future).
  - b. Please provide a roadmap of such on-going research (phases that are to be carried out), detailing the current status as well as the estimated time needed for further stages.

4. Are there any other aspects you deem to be of importance for the requested exemption?

**In case parts of your contribution are confidential, please provide your contribution in two versions (public /confidential). Please also note, however, that requested exemptions cannot be granted based on confidential information!**

**Finally, please do not forget to provide your contact details (Name, Organisation, e-mail and phone number) so that Oeko-Institut/Fraunhofer IZM can contact you in case there are questions concerning your contribution.**

## References

- (Zangl, Stéphanie, Öko-Institut e.V. 2011) "Adaptation to Scientific and Technical Progress under Directive 2002/95/EC: Evaluation of New Requests for Exemptions and/or Review of Existing Exemptions." Final Report.  
[http://rohs.exemptions.oeko.info/fileadmin/user\\_upload/RoHS\\_IV/RoHS\\_final\\_report\\_May\\_2011\\_final.pdf](http://rohs.exemptions.oeko.info/fileadmin/user_upload/RoHS_IV/RoHS_final_report_May_2011_final.pdf).
- (Zangl, Stéphanie [Öko-Institut e.V.] et al. 2010) "Adaptation to scientific and technical progress of Annex II to Directive Adaptation Directive2000/53/EC (ELV) and of the Annex to Directive 2002/95/EC (RoHS): Final report - revised version." Final Report. Accessed August 4, 2015.  
[http://elv.exemptions.oeko.info/fileadmin/user\\_upload/Consultation\\_2014\\_1/Ex\\_3\\_2010\\_Review\\_Final\\_report\\_ELV\\_RoHS\\_28\\_07\\_2010.pdf](http://elv.exemptions.oeko.info/fileadmin/user_upload/Consultation_2014_1/Ex_3_2010_Review_Final_report_ELV_RoHS_28_07_2010.pdf); or [https://circabc.europa.eu/sd/d/a4bca0a9-b6de-401d-beff-6d15bf423915/Corr\\_Final%20report\\_ELV\\_RoHS\\_28\\_07\\_2010.pdf](https://circabc.europa.eu/sd/d/a4bca0a9-b6de-401d-beff-6d15bf423915/Corr_Final%20report_ELV_RoHS_28_07_2010.pdf).