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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Current and future levels of mercury atmospheric pollution on global scale" *by* Jozef M. Pacyna et al.

Jozef M. Pacyna et al.

jp@nilu.no

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Page 1: Done

Page 2, line 1-5: This chapter was removed.

Page 2, line 10: Corrected

Page 2, line 16: I disagree, Ambio (2007) is the right citation. Please, see this special edition of the journal.

Page 2, line 9-13: I disagree with the comment. There is no focus on EU in the introductory. This is simply putting the paper in context of a need for information about sources, emission, and transport of mercury in order to take decision on reduce emissions and exposure to this element, as outlined in the EU Mercury Strategy and the

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Discussion paper

Minamata Convention.

Page 3, lines 9 – 13: I agree, the revision was made.

Page 3, lines 17 – 20: A slight revision was made.

Page 4, line 4 -6: The methodology for estimating future Hg emissions is consistent with the methodology developed in AMAP/ UNEP (2013) The authors of the manuscript are also the authors of the AMAP/ UNEP (2013) report. Some adjustment is made in the text.

Page 8, line 8: Corrected.

Page 8, line 22: Done.

Section 2.5 and 2.6: The assumptions of the scenarios are described separately in section 2.4 – Definition of emission scenarios. A more detailed description is added to section 2.6. An illustration of the assumed coal use until 2035 under the WEO CP (Current Policy), NP (New Policy) and 450 scenario assumptions has been added to the support material (Annex A). A reference to this illustration is provided in section 2.6.

Page 10: Agree. The text on the atmospheric chemistry has been completely re-written.

Page 10-11: The model parameterization of the air-seawater exchange is based on static values of Hg in seawater so it cannot reflect response of the ocean. Appropriate remarks added.

Page 15, line 17-28: I agree. The text about GMOS is removed.

Annex a: This Annex will be withdrawn as it does not relate directly to the work presented in the paper.

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