



Economic and Social Council

Distr.: General
11 January 2011

Original: English

Economic Commission for Europe

Executive Body for the Convention on Long-range
Transboundary Air Pollution

Working Group on Strategies and Review

Forty-eighth session

Geneva, 11–15 April 2011

Item 4 of the provisional agenda

Options for revising the Protocol on Heavy Metals

Options for revising the Protocol on Heavy Metals

Note by the secretariat

Introduction

1. At its forty-seventh session in September 2010, the Working Group on Strategies and Review considered a document on options for revising the 1998 Protocol on Heavy Metals to the Convention on Long-range Transboundary Air Pollution (ECE/EB.AIR/WG.5/2010/10), and proceeded to use it as a basis for negotiations of amendments to the Protocol and its annexes. It made a number of amendment proposals and requested the secretariat to reflect them in a revised document. In line with that request, the annex to this document contains the updated amendment proposals.
2. It should be noted that the amendment proposals to annex V on limit values for emissions from major stationary sources, not discussed by the Working Group at its forty-seventh session, are contained in document ECE/EB.AIR/WG.5/2010/10, paragraphs 16–64. Furthermore, additional information for updating the annex V will be presented in an informal document prepared by the Chair of the Task Force on Heavy Metals.
3. In line with the decision by the Executive Body at its twenty-eighth session in December 2010 to extend the negotiation mandate of the Working Group, the document also includes proposals for amendments to annexes VI and VII, and consequential changes to the Protocol text regarding mercury-containing products. These amendment proposals reflect the relevant amendment proposals presented in document ECE/EB.AIR/WG.5/2010/6 (paras. 17–20). When considering the above amendment proposals, the Working Group is invited to be mindful of the work undertaken by the Intergovernmental Negotiating Committee under the auspices of the United Nations Environment Programme towards a legally binding global instrument to address mercury, which also addresses mercury containing products.

4. In line with its revised mandate, the Working Group is invited to continue negotiations for revising the Protocol on Heavy Metals and its annexes with a view to finalizing the discussions and presenting proposed amendments at the thirtieth session of the Executive Body in 2012 at the latest.
5. The Working Group is expected to consider potential revisions to the Protocol on Heavy Metals that fall within the following scope:
 - (a) As a first priority, any revision possibilities for increasing ratifications of the Protocol, taking into consideration possible options put forward by the Task Force on Heavy Metals;
 - (b) Potential revisions to the text of the Protocol and annexes I to VII, taking into consideration possible options put forward by the Task Force on Heavy Metals, as well as the relevant adopted amendments to the Protocol on Persistent Organic Pollutants (POPs) and the proposed amendments to the 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol), provided that such revisions would not make it more difficult to achieve an increase in ratifications;
 - (c) Possibilities to make the Protocol more adaptable to future developments by producing a guidance document on best available techniques extracted from annex III and updated as appropriate.
6. In 2011, the negotiations should focus on those proposed amendments that address issues raised also in the revision of the Gothenburg Protocol.
7. The Working Group is expected to report on its progress to the twenty- ninth session of the Executive Body for the Convention in 2011.

Annex

Options for revising the 1998 Protocol on Heavy Metals

I. Amendment proposals to the text of the Protocol

A. Article 1: Definitions

1. Paragraph 10 of article 1 of the Protocol shall be replaced with the following:¹
 10. “New stationary source” means any stationary source the construction or substantial modification of which commences after the expiry of two years from the date of entry into force for a Party of: (a) the present Protocol; or (b) an amendment to the present Protocol that, with respect to a stationary source, either introduces new limit values in annex V or introduces the category in annex II in which that source falls. It shall be a matter for the competent national authorities to decide whether a modification is substantial or not, taking into account such factors as the environmental benefits of the modification.”
2. Add paragraph 12 to article 1 of the Protocol as follows:²
 12. “Countries with economies in transition (CET)” are countries as listed in Executive Body Decision 2006/13 or, if the Executive Body modifies the list in a subsequent decision, the latest such decision.
3. Add paragraph 13 to article 1 of the Protocol as follows:³
 13. “Particulate matter (PM₁₀ and PM_{2.5})”⁴ means:
 - (a) PM_{2.5}: The mass of particulate matter with an aerodynamic diameter equal to or less than 2.5 µm; and
 - (b) PM₁₀: The mass of particulate matter with an aerodynamic diameter equal to or less than 10 µm;
 - (c) For Parties that are countries with economies in transition, the mass of particles, of any shape, structure or density, dispersed in the gas phase at the sampling point conditions which may be collected by filtration under specified conditions after representative sampling of the gas to be analysed, and which remain upstream of the filter and on the filter after drying under specified conditions.

¹ The proposed text is in accordance with the revised text of the Protocol on POPs as adopted by the Parties (Decision 2009/1).

² The proposed text is in accordance with the text proposed for revising the Gothenburg Protocol (ECE/EB.AIR/WG.5/2010/1).

³ As proposed by Belarus in informal document No. 13 to the forty-seventh session of the Working Group in September 2010.

⁴ Unless the contrary is expressly stated, all references to “particulate matter” in this Protocol are to both PM_{2.5} and PM₁₀.

B. Article 3: Basic obligations⁵

4. In paragraphs 2 (a) and 2 (b) to article 3 of the Protocol, replace the words “for which annex III identifies best available techniques” with “for which guidance adopted by the Parties at a session of the Executive Body identifies best available techniques”.
5. After paragraph 2 (d), add a new paragraph 2 (e) as follows:
 - (e) For stationary sources for which the construction (if the source was never substantially modified) or last substantial modification commenced prior to the year 1990 [1995], Parties that are countries with economies in transition may, as an alternative to applying paragraphs (c) and (d), choose to require that such sources be closed or phased out according to the time scale in Annex IV.
6. Paragraph 5 shall be replaced with the following:
 5. Each Party shall develop and maintain emission inventories for the heavy metals listed in annex I. Parties within the geographical scope of EMEP shall use the methodologies specified in guidelines prepared by the Steering Body of EMEP and adopted by the Parties at a session of the Executive Body. Parties in areas outside the geographical scope of EMEP shall use similar methodologies.
7. After paragraph 7, two new paragraphs shall be added as follows:
 8. Each Party should actively participate in programmes under the Convention on the effects of air pollution on human health and the environment and programmes on atmospheric monitoring and modelling using guidelines adopted by Parties at a session of the Executive Body.
 9. The Parties may, subject to the outcome of the reviews provided for under article 10, paragraphs 2 and 3, and no later than one year after completion of that review, decide to commence negotiations on further obligations to reduce emissions.

C. Article 7: Reporting⁶

8. In paragraph 1 (a), after the first sentence, a second sentence shall be added as follows: “Where a Party applies different emission reduction strategies under article 3 paragraphs 2 (b), (c) and (d), it shall document the strategies applied and its compliance with the requirements of those paragraphs;”.
9. Paragraph 1 (b) shall be deleted and replaced by the following text:
 - (b) Each Party within the geographical scope of EMEP shall report [within its capacity], through the Executive Secretary of the Commission, to EMEP, on a periodic basis information on the levels of emissions of heavy metals using the methodologies specified in guidelines prepared by the Steering Body of EMEP and adopted by the Parties at a session of the Executive Body. Parties in areas outside the geographical scope of EMEP shall make available similar information to the Executive Body. Each Party shall also provide information on the levels of emissions of the substances listed in annex I for the reference year specified in that annex.

⁵ The proposed text is in accordance with the text proposed for revising the Gothenburg Protocol (ECE/EB.AIR/WG.5/2010/1).

⁶ The proposed text is in accordance with the text proposed for revising the Gothenburg Protocol (ECE/EB.AIR/WG.5/2010/1).

10. After paragraph 1 (b) a new paragraph 1 (c) shall be added as follows:
- (c) Each Party should report available information, through the Executive Secretary of the Commission, on air pollution effects programmes on human health and the environment and on atmospheric monitoring and modelling programmes under the Convention using guidelines adopted by the Parties at a session of the Executive Body.

D. Article 13: Amendments to the Protocol⁷

11. Paragraph 3 shall be replaced by the following text:
3. Amendments to the present Protocol and to annexes I, II, IV, V, VI [and VIII] shall be adopted by consensus of the Parties present at a session of the Executive Body, and shall enter into force for the Parties which have accepted them on the ninetieth day after the date on which two thirds of those that were Parties at the time of their adoption have deposited with the Depositary their instruments of acceptance thereof. Amendments shall enter into force for any other Party on the ninetieth day after the date on which that Party has deposited its instrument of acceptance thereof. This paragraph shall be subject to paragraphs 5 bis and 5 ter below.
12. After paragraph 5, the following new paragraphs shall be added:
- 5 bis. For those Parties having accepted it, the procedure set out in paragraph 5 ter below shall supersede the procedure set out in paragraph 3 above in respect of amendments to annexes I, II, IV, V, VI [and VIII].
- 5 ter. (a) Amendments to annexes I, II, IV, V, VI [and VIII] shall be adopted by consensus of the Parties present at a session of the Executive Body. On the expiry of one year from the date of its communication to all Parties by the Executive Secretary of the Commission, an amendment to any such annex shall become effective for those Parties which have not submitted to the Depositary a notification in accordance with the provisions of subparagraph (b) below;
- (b) Any Party that is unable to approve an amendment to annexes I, II, IV, V, VI [and VIII] shall so notify the Depositary in writing within one year from the date of the communication of its adoption. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for its previous notification and, upon deposit of an instrument of acceptance with the Depositary, the amendment to such an annex shall become effective for that Party;
- (c) Any amendment to annexes I, II, IV, V, VI [and VIII] shall not enter into force if an aggregate number of 16 or more Parties have either:
- (i) Submitted a notification in accordance with the provisions of subparagraph (b) above; or
- (ii) Not accepted the procedure set out in this paragraph and not yet deposited an instrument of acceptance in accordance with the provisions of paragraph 3 above.

⁷ The proposed text is in accordance with the revised text of the POPs Protocol as adopted by the Parties (Decision 2009/1).

E. Article 15: Ratification, acceptance, approval and accession⁸

13. A new paragraph shall be added after paragraph 2 as follows:

3. A State or regional economic integration organization shall declare in its instrument of ratification, acceptance, approval or accession if it does not intend to be bound by the procedures set out in article 13, paragraph 5 ter as regards the amendment of annexes I, II, IV, V, VI [and VIII].

II. Amendment proposals to the annexes to the Protocol

A. Annex I: Heavy metals referred to in article 3, paragraph 1, and the reference year for the obligation

14. In annex I, in the text on the reference year for cadmium, lead and mercury, after the first part of each of the sentences, reading “1990; or an alternative year from 1985 to 1995 inclusive,” replace the rest of the sentences by the following text (in bold):⁹

<i>Substance</i>	<i>Reference year</i>
Cadmium (Cd)	1990; or an alternative year from 1985 to 1995 inclusive, “or for countries with economies in transition, an alternative year from 1985 to the year of the entry into force of the Protocol for a Party, and as specified by that Party upon ratification, acceptance, approval or accession”
Lead (Pb)	1990; or an alternative year from 1985 to 1995 inclusive, “or for countries with economies in transition, an alternative year from 1985 to the year of the entry into force of the Protocol for a Party, and as specified by that Party upon ratification, acceptance, approval or accession.”
Mercury (Hg)	1990; or an alternative year from 1985 to 1995 inclusive, “or for countries with economies in transition, an alternative year from 1985 to the year of the entry into force of the Protocol for a Party, and as specified by that Party upon ratification, acceptance, approval or accession.”

⁸ The proposed text is in accordance with the revised text of the POPs Protocol as adopted by the Parties (Decision 2009/1).

⁹ The proposed text is in accordance with the revised text of the POPs Protocol as adopted by the Parties (Decision 2009/1).

B. Annex II: Stationary source categories¹⁰

15. In annex II, in the list of categories, for the description of category 5, after the word “zinc” the words “and manganese” shall be added, as follows:

<i>Category</i>	<i>Description of the category</i>
[5]	Installations for the production of copper, lead, zinc [and manganese] from ore, concentrates or secondary raw materials by metallurgical processes with a capacity exceeding 30 tons of metal per day for primary installations and 15 tons of metal per day for secondary installations, or for any primary production of mercury.

16. In annex II, in the list of categories, for the description of category 6, after the words “zinc” the words “and aluminium” shall be added, as follows:

<i>Category</i>	<i>Description of the category</i>
[6]	Installations for the smelting (refining, foundry casting, etc.), including the alloying, of copper, lead, zinc [and aluminium] including recovered products, with a melting capacity exceeding 4 tons per day for lead or 20 tons per day for copper and zinc.

C. Annex III: Best available techniques for controlling emissions of heavy metals and their compounds from the source categories listed in annex II

17. In paragraph 1, add a second sentence that reads: “Further description of and guidance on such best available techniques are provided in a guidance document adopted by the Parties at a session of the Executive Body and may be updated as necessary by a consensus of the Parties meeting within the Executive Body.”

18. Amend paragraph 3, to read: “The information regarding emission control performance and costs is based on official documentation of the Executive Body and its subsidiary bodies, in particular documents received and reviewed by the Task Force on Heavy Metals, best available techniques (BAT) reference documents from the European Integrated Pollution Prevention and Control Bureau (EIPPCB), the 2002 Global Mercury Assessment of the United Nations Environment Programme (UNEP), and various technical reports from the United States Environmental Protection Agency, Environment Canada, and the European Commission and information provided by national experts.”

19. In paragraph 4, replace the words “this annex may, therefore, need amending and updating” with the words “the guidance document referred to in paragraph 1 above may, therefore, need amending and updating”.

20. Delete the paragraphs 5 to 7 and sections II to IV of annex III, and move their contents into the guidance document referred to in paragraph 1 above.

¹⁰ According to the Task Force on Heavy Metals, the two source categories (5 and 6) are considerable sources of mercury. This is why manganese production from ores and secondary aluminium production are therefore included in the categories 5 and 6, respectively.

D. Annex IV: Timescales for the application of limit values and best available techniques to new and existing stationary sources¹¹

21. In annex IV, replace paragraph 1 (b) by the following text:
- (b) For existing stationary sources:
 - (i) Eight years after the date of entry into force of the present Protocol for a Party. If necessary, this period may be extended for specific existing stationary sources in accordance with the amortization period provided for by national legislation; or
 - (ii) For a Party that is a country with an economy in transition, up to 15 years after the date of entry into force of the present Protocol for that Party.
22. After paragraph 1 (b), add new paragraphs 2 and 3, as follows:
2. The timescales for the application of limit values and best available techniques that have been updated or introduced as a result of amendment of this Protocol shall be:
- (a) For new stationary sources, two years after the date of entry into force of the relevant amendment for a Party; and
 - (b) For existing stationary sources:
 - (i) Eight years after the date of entry into force of the relevant amendment for a Party; or
 - (ii) For a Party that is a country with an economy in transition, up to 15 years after the date of entry into force of the relevant amendment for that Party.
3. The timescales for the close or phase out of stationary sources according to article 3 paragraph 2 (e) of the Protocol shall be up to 5 years, effective 15 years after the date of entry into force of the Protocol for a Party.

E. Annex VI: Product control measures

23. In annex VI, paragraph 1, replace the value “0.013 g/l” in the first and second sentences by the value “0.005 g/l”. (Paragraphs 2–4 remain unchanged.)
24. Replace paragraph 5 by the following text:
5. Each Party shall prohibit, no later than 5 years, or 10 years for countries with economies in transition, the placing on the market of batteries that contain more than 0.0005% of mercury by weight, whether into appliances or not incorporated. The restriction shall not apply to:
- (a) Button cell batteries with a mercury content of no more than 2% mercury by weight; and
 - (b) Mercury-containing batteries used in:

¹¹ The proposed text is in accordance with the revised text of the POPs Protocol as adopted by the Parties (Decision 2009/1).

- (i) Equipment connected with the protection of a Party's essential security interests, arms, munitions and war material, with the exclusion of products that are not intended for specifically military purposes;
 - (ii) Equipment designed to be sent into space.
25. After paragraph 5, add new paragraphs (6–11), as follows:
6. Each Party shall prohibit, no later than 5 years, or 10 years for countries with economies in transition, the placing on the market of: fever thermometers that contain mercury; and other measuring devices that contain mercury intended for sale to the general public (e.g., manometers, barometers, sphygmomanometers, thermometers other than fever thermometers). The restriction shall not apply to:
- (a) Measuring devices more than 50 years old [*on 3 October 2007*]; and
 - (b) Marketing or use for research and development or analysis purposes.
7. Each party shall prohibit, no later than 5 years, or 10 years for countries with economies in transition, the placing on the market of vehicles if they contain mercury-containing materials and components exceeding 0.1% mercury by weight in homogenous materials. The restriction shall not apply to:
- (a) Discharge lamps for headlight application; and
 - (b) Fluorescent tubes used in instrument panel displays.
- These components shall be labelled or made identifiable to facilitate removal at end-of-life. The exemptions are valid for vehicles type approved before [*1 July 2012*] and spare parts for these vehicles.
8. Each party shall prohibit, no later than 5 years, or 10 years for countries with economies in transition, the placing on the market of new electrical and electronic equipment exceeding 0.1% mercury by weight in homogenous materials. The restriction shall not apply to:
- (a) Lamps, except for fluorescent lamps for which certain limit values apply;
 - (b) Medical devices;
 - (c) Monitoring and control instruments;
 - (d) Electrical and electronic equipment designed for use with a voltage rating exceeding 1,000 volts for alternating current and 1,500 volts for direct current;
 - (e) Large scale stationary industrial tools; and
 - (f) Spare parts for the repair, or to the reuse, of electrical and electronic equipment put on the market before [*1 July 2006*].
9. Each party shall prohibit, no later than 5 years, or 10 years for countries with economies in transition, the placing on the market of mercury-containing fluorescent lamps if their mercury content exceed, for:
- (a) Compact fluorescent lamps: 5 mg mercury per lamp; and
 - (b) Straight fluorescent lamps for general purposes:
 - (i) 10 mg mercury for lamps with halophosphate;
 - (ii) 5 mg mercury for lamps with triphosphate and normal lifetime;
 - (iii) 8 mg mercury for lamps with triphosphate and long lifetime.

10. Each Party shall ensure the installation of amalgam separators at dentist practices within its territory.

11. Each Party shall set up a collection system for the mercury and mercury-containing products mentioned in the paragraphs 5–10 above, the aim being to dispose of the mercury in an environmentally sound manner.

F. Annex VII: Product management measures

26. In annex VII, paragraph 3, subparagraphs 3 (a) to 3 (d) shall be deleted. (Paragraphs 1 and 2 remain unchanged.)
