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**EXECUTIVE BODY FOR THE CONVENTION ON LONG-RANGE
TRANSBOUNDARY AIR POLLUTION**

Working Group on Strategies and Review

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Item 4 of the provisional agenda

**POLICY IMPLICATIONS OF THE REVISION OF THE
EMISSION REPORTING GUIDELINES**

Note by the secretariat

1. The Executive Body, at its twenty-fourth session, invited the Working Group on Strategies and Review to consider ways of strengthening the *Emission Reporting Guidelines* to improve the reporting of emissions (ECE/EB.AIR/89, para. 15 (n)). In view of the technical nature of the matter, the Chair of the Working Group on Strategies and Review requested the secretariat and the EMEP¹ Bureau to prepare a note explaining the issues for discussion. The Working Group may wish to consider the following proposals and give guidance on how the *Guidelines* could be made more effective in facilitating the submission of high-quality emission data, which underpins the Convention's work.

¹ Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants.

I. BACKGROUND

2. The EMEP Steering Body, at its twenty-ninth session, welcomed plans to revise the *Emission Reporting Guidelines* (EB.AIR/GE.1/2005/2, para. 48 (f)). The main objective of revising the *Guidelines* is to harmonize requirements for reporting emission data under the Convention with those reported under the European Union's National Emission Ceilings (NEC) directive (2001/81/EC), as well as with those for reporting greenhouse gas emissions under the United Nations Framework Convention on Climate Change (UNFCCC).

3. The Task Force on Emission Inventories and Projections initiated this work with the intention of submitting a final draft of the *Guidelines* to the Steering Body at its thirty-first session in September 2007. Several of the proposals cited below were submitted to the EMEP Steering Body in 2006 (ECE/EB.AIR/GE.1/2006/7, paras. 13–19) as well as previously in 2004 (EB.AIR/GE.1/2004/8). However, the Task Force requested that the Working Group on Strategies and Review provide further guidance, in light of the implications for future air pollution policy development, as well as to support the overall process of review and improvement of air emission inventories.

4. The Task Force on Emission Inventories and Projections, in consultation with the EMEP Bureau, has identified several sections in the draft revised *Guidelines* where the use of the word “shall” rather than “should” would give the *Guidelines* the necessary strength to support the review of emission data. Moreover, the Task Force and the Bureau request guidance on clarifying the scope of emission reporting, as specified below.

5. Section II (Strengthening the *Guidelines*) consists of proposals that would require Parties to: (a) use the *EMEP/CORINAIR Atmospheric Emission Inventory Guidebook*; (b) submit Informative Inventory Reports (IIRs); (c) use EMEP reporting templates; (d) report projections; and (e) calculate emissions without adjustments (e.g. to climate variations and trade patterns of electricity). Section III (Scope of Reporting) consists of proposals to clarify reporting concerning: (a) emissions from transport fuels; (b) national totals; (c) emissions of persistent organic pollutants (POPs); and (d) emissions of particulate matter (PM).

II. STRENGTHENING THE GUIDELINES

A. Use of the *EMEP/CORINAIR Guidebook*

6. Proposal 1: Amend the following paragraph to require Parties to use the *EMEP/CORINAIR Atmospheric Emission Inventory Guidebook* (hereinafter the *Guidebook*) when deriving emission factors and calculating emissions:

Parties within the geographic scope of EMEP shall use the methodologies in the latest version of the *EMEP/CORINAIR Atmospheric Emission Inventory Guidebook*, as endorsed by the Executive Body of the Convention to estimate emissions and projections for each source category. Parties can use national or international methodologies that they consider better able to reflect their national situation, provided that the methodologies produce more accurate estimates, are scientifically based, are compatible with the *Guidebook* and are documented in their Informative Inventory Report.

7. Rationale: The *Guidebook* provides emission estimation methods and is thus an important tool for emission reporting. The revised version of the *Guidebook* expected to be endorsed by the EMEP Steering Body in 2008 will describe good practice requirements for reporting, and will, for each source, offer guidance to Parties on appropriate methodologies to be used based on national circumstances. Use of the *Guidebook* in calculating emissions does not exclude the use of national methods as long as they meet certain requirements. However, encouraging all Parties to use the *Guidebook* in preparing their annual submissions would enhance the harmonization of emission inventories and improve the quality of reported data.

B. Submission of Informative Inventory Reports (IIRs)

8. Proposal 2: Amend the following paragraph to require Parties to submit an annual report of qualitative information – referred to in the *Guidelines* as an Informative Inventory Report (IIR) – describing the methodologies used in calculating emissions, the use of notation keys, key source categories, recalculations and so on:

Parties within the geographical scope of EMEP shall submit an Informative Inventory Report prepared according to the outline provided in annex VI.

9. Rationale: The IIR is currently optional. However, the EMEP Steering Body has underlined the importance of Parties' submitting IIRs to supplement their data submissions. The information is important for the secretariat and the EMEP centres in their initial review and assessment of inventories (stages 1 and 2 of the inventory review). Moreover, the IIR will be crucial for the eventual stage 3 in-depth reviews in providing the level of detail and transparency needed for comprehensive reviews. The text of the revised *Guidelines* would stipulate that Parties must fulfil the IIR requirement in accordance with available resources. The IIR is submitted annually (with a deadline of 15 April, two months after the deadline for emission data of 15 February). Parties are requested to update parts of the information every five years.

10. Proposal 3: Amend the following paragraph to require Parties to identify in the IIR the main sources of emissions in their country (i.e. national key categories):

Parties within the geographical scope of EMEP shall identify in their IIR national key categories for the base year and the latest inventory year as described in the *Guidebook*.

11. Rationale: The key category concept is essential for Parties to describe the allocation of emissions in their country by source and prioritize inventory resources. It is also critical for the review process.

12. Proposal 4: Amend the following paragraph to require Parties to use quality assurance and quality control procedures and to reflect them in the IIR.

Procedures for quality assurance and quality control (QA/QC) shall be implemented and documented in the IIR.

13. Rationale: QA/QC procedures must be in place for reporting emission data of adequate quality.

14. Proposal 5: Amend the following paragraph to require Parties to explain their recalculation methods in the IIR.

Parties shall indicate the justification for any recalculation and describe in the IIR the methods used to ensure time-series consistency, changes in the data and calculation methods, and the inclusion of any new sources not previously accounted for, indicating any relevant changes in the source category.

15. Rationale: Adequate explanation of recalculations is essential to evaluate progress made towards emission reduction obligations.

C. Use of EMEP reporting templates

16. Proposal 6: Amend the following paragraph to require Parties to submit annual emission data using the EMEP templates of reporting tables prepared by MSC-West.

Parties shall use the reporting templates in annex IV or other harmonized reporting options as specified below.

17. Rationale: The use of templates is necessary to obtain adequate transparency and comparability in reporting and to facilitate data flows.

D. Reporting projections

18. Proposal 7: Amend the following paragraph to require Parties to the 1999 Gothenburg Protocol to submit projected activity data (on energy consumption, electricity and heat production and consumption, and agricultural and transport activity), as well as projected national total emissions for the substances required under the Protocol, as follows. Amend the paragraph, moreover, to include additional projection years past 2020.

Parties to the 1999 Gothenburg Protocol, within the geographic scope of EMEP shall report projected activity data and projected national total emissions for SO₂, NO_x, and NMVOC for the years 2010, 2015 and 2020.

19. Rationale: Projected emissions are required under Article 7, 1 (b) (iii) of the Gothenburg Protocol. The *Guidelines* encourage projections for 2010, 2015 and 2020 and activity data, but they do not require them (i.e. they use “should”, not “shall”). Projected activity data are crucial for the review process, providing transparency and enabling consistency checks and analysis of data. In addition, the Task Force requested guidance on whether a new Executive Body decision might be necessary to require reporting of projections past 2020.

20. Proposal 8: Amend the following paragraph to require Parties to aggregate projections to the relevant NFR² source category, as follows:

Projections of emissions shall be estimated and aggregated to the relevant source sector, set out in Table IV 2a. ... Methodologies and assumptions for projections should be transparent and should allow for an independent review of data. Where appropriate, Parties shall follow the guidance on projections in the Guidebook. Parties shall provide a “with measures” projection for each pollutant taking into account adopted and implemented policies and measures...

21. Rationale: This is necessary to obtain adequate comparability, consistency and transparency in reported projections.

² Nomenclature for Reporting: nomenclature of sector-based activities used for allocating emissions by source in the *Emission Reporting Guidelines*.

E. Calculating emissions without adjustments

22. Proposal 9: Amend the following paragraph to require Parties to submit calculated emissions without adjustments, or to explain the adjustments separately, as follows:

- (a) Inventories shall be calculated and reported without adjustments relating, for example, to climate variations or trade patterns of electricity. If Parties, in addition, carry out such adjustments to inventory data, they should be reported separately in a transparent manner, with clear indications of the method followed.

23. Rationale: It is important that Parties submit data on the basis of similar principles to enable accurate comparison of inventories and the review of real trends in emissions.

III. SCOPE OF REPORTING

A. Calculation of emissions from transport fuels

24. Proposal 10: For emissions from transport, Parties should calculate and report estimates based on national fuel consumption, consistent with national energy balances reported to Eurostat and the International Energy Agency. For example, emissions from road vehicle transport should be attributed to the country where the fuel is sold to the end user. Alternatively, a Party may report emissions from road vehicle transport calculated on the basis of national vehicle kilometres. If cross-border movement of fuel in or out of the geographic area of a Party accounts for a significant proportion of its emissions in a particular source category, as calculated on this basis, the Party should provide separate estimates to quantify the effect of such fuel transfer on the emissions from the source category concerned and on its total national emissions. The basis for the separate estimates should be clearly specified in the IIR. Any approach chosen should be used consistently across all years and pollutants.

25. Rationale: Reporting emissions from transport in accordance with the energy balance has the advantage of being consistent with reporting of greenhouse gas emissions to UNFCCC and is easier to verify. Reporting these emissions in accordance with national vehicle kilometres is best linked with modelling activities that require spatial allocation of emissions. A third option, reflected in the current draft of the *Guidelines*, is to allow each Party to choose the appropriate approach for that country. The Task Force was not able to agree on a single approach and identified this as a policy issue. While for most Parties the approach chosen will not have a large impact on the data reported, for a limited number of Parties the results can be significantly different.

B. Reporting national totals

26. Proposal 11/rationale: The Task Force has requested guidance on the scope of national totals, including, *inter alia*, whether emissions from forest fires should be included in the annual total emission figure. It has proposed to omit forest fires from national totals and include this as a memo item.

27. In addition, discrepancies between emissions from aviation and shipping reported as part of national totals under the Convention and to the European Union's NEC directive are problematic for certain Parties. The European Commission has informed the EMEP Steering Body that this is best solved through the revision of the NEC directive.

C. Reporting of persistent organic pollutants

28. Proposal 12/rationale: The Task Force has noted that for those POPs whose use has been phased out, it may be more appropriate to request Parties to report on the use of POPs than on the emissions (the scope of which is not covered by the current *Guidelines*), and it has requested further guidance on this. The Task Force has proposed to remove these POPs from the *Guidelines* unless they are also emitted as by-products from energy combustion or industrial processes. The Task Force on POPs has proposed a revision of the list of POPs to be covered in the revised *Guidelines*.³

D. Reporting of Particulate Matter (PM)

29. Proposal 13/rationale: There is currently no provision in the Convention or any of its Protocols that requires Parties to report PM emissions. The Task Force has asked the Working Group for guidance as to whether an Executive Body decision may be necessary to encourage or require PM emission reporting.

³ The current text in the draft revised Guidelines reads: "Air pollutants covered by these Guidelines are: sulphur oxides, nitrogen oxides, ammonia, non-methane volatile organic compounds, carbon monoxide, particulate matter (PM₁₀ and PM_{2.5} and as additional information TSP), heavy metals (cadmium, lead, mercury, and as additional information: arsenic, chromium, copper, nickel, selenium, zinc) and persistent organic pollutants (lindane, DDT, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), dioxins and furans (PCDD/F), hexachlorobenzene (HCB) and any additional POPs that may be added to the Protocol in the future). Parties are encouraged to report emissions on substances in annex I and II of the 1998 Protocol on POPs, if available, as well as on: pentabromodiphenyl ether (PeBDE), perfluorooctane sulfonate (PFOS), hexachlorobutadiene (HCBd), octabromodiphenyl ether (OctaBDE), polychlorinated naphthalenes (PCN), pentachlorobenzene (PeCB) and short-chained chlorinated paraffins (SCCP)."