

# Task Force on Emission Inventories and Projections

## Proposed revision of the 2009 LRTAP Emission Inventory Reporting Guidelines

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# Content

- Reasons for updating the current (2009) Reporting Guidelines
- General principles followed in the revision process
- Process and next steps
- Key changes proposed
- Open technical questions requiring EMEP clarification



# Reasons for updating the 2009 Guidelines

- To ensure improved information on emissions is available for the work of EMEP and the Convention by strengthening reporting practices, quality and best practice requirements
- To implement recent changes arising from recent amendments of LRTAP protocols, but noting these amendments have not entered into force:
  - Gothenburg (2012) (e.g. mandatory IIR and PM<sub>2.5</sub> reporting, voluntary BC reporting, adjustments etc)
  - Heavy metals (2012)
  - POPs (2009 - PCBs)
- To implement changes agreed to the EMEP grid by the Executive Body
- To ensure continued alignment with forthcoming UNFCCC/IPCC reporting for post-Kyoto CP1 (*note: to be agreed at COP19*)
- To simplify current text and to correct errors in the existing Guidelines

# General principles in the revision process

- Reporting requirements are consistent with the politically-agreed Protocol changes. Definitions or requirements are not changed
- Ensure continued alignment with UNFCCC definitions on notation keys, 'TCCCA' quality criteria, and emission source codes (CRF/NFR)
- The proposed Guidelines text is designed to create a self-standing legal document. Supplementary (and now out-dated) EB decisions defining various aspects of reporting should be rescinded (i.e. 2002/10, 2005/1, 2008/16)
- The current proposal represents the technical views of the TFEIP following its May meeting, subsequent contributions from an ad-hoc group of Parties, and consultation with MSC-E and MSC-W



# Process and next steps

1. Draft proposed Guidelines and annexes submitted to EMEP SB
2. Agreement on the technical proposal at EMEP SB
3. *Legal check of Reporting Guidelines text*
4. Translation of Guidelines and Annexes for submission to Executive Body in Dec 2013  
*(some detailed NFR changes in the Annex I reporting template may need to await UNFCCC COP decisions in late November 2013)*
5. Publishing by UNECE/CEIP in early 2014 for implementation by Parties from 2015 onwards



# Key changes - structure

## Guidelines:

- Information on definitions contained in one ‘definitions’ section (previously provided throughout the Guidelines text and in annexes)
- New section on ‘reporting of adjusted national inventories’ added

## Annexes

- Information to be reported annually is grouped in Annexes I-IV (templates for emissions, projections, IIR and notification form)
- Information to be reported less frequently is grouped in Annex V-VII (gridded emissions, large point sources, and adjustments summary template)



# Key changes – quality criteria and notation keys

## Paragraph 4. Quality criteria ‘TCCCA’

- Updated definitions added from the Revised UNFCCC Reporting Guidelines (Decision 15/CP.17 )

## Paragraph 11. Notation key definitions

- Updated definitions of notation keys added from the Revised UNFCCC Reporting Guidelines (Decision 15/CP.17 )
- ***The UNFCCC definition of ‘Not estimated’ introduces a significance threshold above which emissions may not be reported as NE. Use of a similar threshold was discussed but not supported by TFEIP***
- ***Use of notation keys for reporting national totals. The Secretariat notes that some Parties use NE to report national totals where values are formally required under Protocol commitments. Is additional guidance on this needed?***

# Key changes - substances

Improved distinction between mandatory and voluntary reporting

Paragraph 6. Substances for mandatory reporting

- Sulphur dioxide and sulphur oxides ( $\text{SO}_2$  and  $\text{SO}_x$ )
- Nitrogen oxides ( $\text{NO}_x$ )
- Ammonia ( $\text{NH}_3$ )
- $\text{PM}_{2.5}$  and  $\text{PM}_{10}$
- Carbon monoxide (CO) (**not covered by any protocol**)
- Cadmium (Cd), mercury (Hg) and lead (Pb)
- PAHs, dioxins/furans, PCBs, HCB

***The original Gothenburg protocol required reporting for sulphur (defined as including all sulphur compounds expressed as  $\text{SO}_2$ ). But the amended Gothenburg protocol now requires Parties to establish and report emission inventories for 'SO2', not sulphur. Ceilings for 2010 and 2020 are now defined as  $\text{SO}_2$  and not  $\text{SO}_x$ .***



# Key changes - substances

## Paragraph 7. Voluntary reporting

- black carbon where available (as per amended protocol text)
  - total suspended particulate matter (TSP)
  - additional heavy metals (As, Cr, Cu, Ni, Se, Zn)
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- ***The TFEIP questioned whether the emission data for all these substances are in fact used within the Convention? If not, some might be removed from the list of voluntary reporting. On balance TFEIP preferred to retain their inclusion but stress the voluntary nature of reporting for these additional substances.***
  - ***The TFEIP considered the addition of benzene to the list of substances for which reporting is voluntary, but this was not supported.***

# Key changes - Methods

## General – paragraph 18 and onwards

- There is significant support within TFEIP to clarify and strengthen the **technical** reporting requirements by changing many of the present ‘shoulds’ (i.e. voluntary) to ‘shalls’ (i.e. mandatory).
  - This will improve clarity on requirements from Parties and also align further with long-established reporting practices under UNFCCC. It will further improve the consistency, comparability and transparency of emission information available under EMEP and thus assist in improving assessment activities
  - Protocol legal aspects will need to be considered – an Executive Body Decisions can be used to implement the proposed technical changes
- ***Are there instances where the proposed ‘shalls’ are considered technically inappropriate?***

# Key changes - Reporting

## Paragraph 37. Years for emission inventory reporting

- Change mandatory reporting from (1980 to X-2) to (1990 to X-2) for the main pollutants, HMs and POPs, as well as the reference year(s) where applicable for Parties.
- PM 2.5 and PM10, and where available BC emissions, shall be reported from 2000 onward
- ***All years in the time series must be reported*** and not only the latest year (as at present). Significant quality issues in time-series presently occur because Parties do not follow the Guidelines and EMEP/EEA Guidebook by ensuring they report consistent time-series. Again this change is consistent with established practices elsewhere e.g. UNFCCC).
- Parties may voluntarily report earlier years

# Key changes - Reporting

Paragraph 40(a). Reporting deadlines.

EMEP/CEIP proposes changes to the reporting deadlines.

- Emission inventories and projections from 15 Feb to 1 Feb (and allowing a 2 week resubmission 'window').
  - Gridded data and LPS data from 1 March (same date)
  - Informative Inventory Report (IIR) – 15 March (same date)
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- ***There were mixed views from TFEIP, while appreciating the need that improved timeliness of data is required for the centres to perform their activities.***
  - ***One option supported by a number of countries is retaining 15 Feb for reporting, but with no resubmission window. Late submissions would not be accepted by CEIP. (it is noted that the timeliness of CLRTAP submissions is poor compared to UNFCCC, where reporting deadlines are much more strictly observed by Parties and enforced)***

# Key changes - Reporting

## Paragraph 40(b). Reporting formats.

- Use of the latest reporting template becomes mandatory.
- Data submitted in old or incorrect templates will not be accepted by CEIP – Parties will have to resubmit in the correct template
- This reduces resource requirements for CEIP – much unnecessary time is presently spent by CEIP converting old data formats to NFR09. It also improves the comparability of data received from Parties and aligns CLRTAP with standard practices used under other international Conventions e.g. UNFCCC, Montreal protocol etc, where data reported in non-approved formats is not accepted.

# Key changes - Reporting

Paragraph 40(b). Reporting formats – changes to the Nomenclature For Reporting (NFR)

- UNFCCC has agreed a new CRF coding system for emission sources for 2015 reporting onward.

– Current NFR09	Changes NFR14	ion
1 Energy	1 Energy	
– 2 Industrial process	2 Industrial processes and product use	osed emplate)
– 3 Solvent and product use	-	
4 Agriculture	3 Agriculture	
6 Waste	5 Waste	
7 Other	6 Other	
11 Natural sources	11 Natural sources	

# Key changes - Reporting

Paragraphs 42-46. Reporting frequencies

i. Annual reporting:

- Emission inventories and accompanying activity data of mandatory pollutants, and where available BC and other voluntary pollutants
  - *New.* Parties shall regularly update and annually report 'latest available' projections for years 2020, 2025, 2030 and where available 2040 and 2050 (only for substances having ceilings/reduction commitments and where available BC). Includes mandatory reporting of underlying projection parameters.
  - Informative inventory report (IIR)
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- ***Note – there is no requirement that projections be updated annually, only 'regularly' updated. The latest available projections should however be reported each year (even if unchanged). Annual/biennial?***
  - ***Require projections of other substances? (HMs, POPs?). Who would use this data? Who uses the projection data for main pollutants?***

# Key changes - Reporting

## Paragraph 47. Reporting frequencies

### i. Five yearly change to two-yearly reporting

- Gridded data
  - LPS data
  - For all mandatory substances and BC where available for gridded data
- ***LPS data – stack heights. The TFEIP was surprised to learn that MSC-W and MSC-E do not use stack height data currently required from Parties. The TFEIP requested the Steering Body to consider if this information should continue to be compulsorily reported in the future, or if such information might be better voluntarily reported on a one-off basis if it should ever be needed in the future.***
  - ***If stack height reporting was removed – PRTR protocol (E-PRTR) data could simply be re-used by CEIP to fulfil LPS data needs***



# Key changes – Reporting of ‘adjusted’ national inventories

Paragraph 36.

- The revised Guidelines presently only include information relevant to the reporting of ‘adjusted’ emission inventories (i.e. only information expected as part of regular inventory submissions once an ‘adjustment’ application has been approved).
- Information on the one-off application process needed for each adjustment is not presently included – these requirements are already specified in detail elsewhere in EB decisions (2012/3 and 2012/12).
- ***Should all information relating to adjustments be included in the Guidelines (e.g. application process and annual reporting of adjusted inventories) even if this leads to repetition of information across different official documents?***

# General questions

- Is further clarification required in the Guidelines on accounting in national inventories of:
  - Anthropogenic vs. non-anthropogenic: make it (even more) explicit in the text that reporting of all anthropogenic emissions are required, agricultural crop emissions of NMVOC, NO<sub>x</sub> from agricultural soils etc.?)
  - All parties SHALL report transport emissions on 'fuel sold' basis. IN ADDITION, Parties may report on a fuel 'used basis' and certain Parties to have this data used for compliance purposes for 2010 (2020?).



**GUIDELINES**

# Suggested discussion points

- Use of 'shoulds' vs 'shalls' to define the technical reporting requirements. What quality of emission information is ultimately desired by Parties and EMEP?
- Substances: ( $\text{SO}_2$  vs  $\text{SO}_x$ ). Projections of POPs and HMs needed?
- Years required: (complete time series 1990 to X-2; 2000 to X-2)
- Reporting deadlines: 1 Feb or 15 Feb; resubmissions?
- Frequency of reporting: annual reporting of inventories, activity data, IIR and projections; 2-yearly reporting of gridded and LPS data
- Formats of reporting (annexes)
- Reporting of information that does not seem used? (might some voluntary HM substances be removed, stack heights, LPS data?)
- Others?

**Thank you for your attention!**

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