Task Force on Emission Inventories and Projections

This Years’ Activities and Future Work

TFEIP co-chairs: Chris Dore, Martin Adams and Kristina Saarinen
Contents

1. TFEIP/EIONET Annual Meeting
2. TFEIP Workshop

3. Emissions Inventory Review
   • Update of Review “Methods & Procedures”

4. Emissions Inventory Guidebook Update

5. Condensables – a Proposal

6. Focus of Future Work
2. TFEIP/EIONET Annual Meeting

Sofia, April 2018
Our thanks to our Bulgarian hosts
Over 120 attendees, nearly 50 countries & bodies

- Topics covered in the slides that follow…
Emissions Verification
Less work being conducted across the last ~10 years
Satellite measurement does offer some solutions

Identifying issues is often very simple.
Need to be forewarned about potential inaccuracies.

Emissions Projections
Capacity building workshop on emissions projections for several Parties.
3.1. Methods and Procedures Document

Methods & Procedures Document – Informal meeting paper

• Was updated in 2016
• Trialled across the 2017 & 2018 emissions inventory reviews

• Technical corrections introduced (thresholds)
• More flexibility in scope/focus of reviews

• We are not proposing any substantive changes to the 2016 document
• We request EMEP SB’s formal approval
3.2. Annex I Emissions Reporting Template

A substantial number of updates undertaken:
• Clear reporting of emissions by **fuel used**
• Separate **compliance totals** for CLRTAP and NECD
• Handles **emission reduction commitments** (2022)
• Etc etc.

**However**
• A few very minor points remain to be resolved
• “NA” fields to be updated
• A final QA/QC check still to do

Template will be finalised for the TFEIP2019 meeting
**We will seek adoption at 2019 EMEP SB for reporting in 2020 onwards**
### 3.2. Annex I Emissions Reporting Template

**AT: 5.2.2023: 2005**

**NFR sectors to be reported**

<table>
<thead>
<tr>
<th>NFR Aggregation for Gridding and LPS (GNFR)</th>
<th>NFR Code</th>
<th>Longname</th>
<th>Notes</th>
<th>kt</th>
<th>kt</th>
<th>kt</th>
<th>kt</th>
<th>kt</th>
</tr>
</thead>
<tbody>
<tr>
<td>A_PublicPower</td>
<td>1A1a</td>
<td>Public electricity and heat production</td>
<td></td>
<td>9.15</td>
<td>9.15</td>
<td>9.15</td>
<td>9.15</td>
<td></td>
</tr>
<tr>
<td>B_Industry</td>
<td>1A1b</td>
<td>Petroleum refining</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>B_Industry</td>
<td>1A1c</td>
<td>Manufacture of solid fuels and other energy industries</td>
<td>0.73</td>
<td>0.73</td>
<td>0.73</td>
<td>0.73</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>I_Waste</td>
<td>5C1b</td>
<td>Cremation</td>
<td>(c)</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>I_Waste</td>
<td>5C1bwi</td>
<td>Other waste incineration (please specify in IIR)</td>
<td>(c)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>I_Waste</td>
<td>5C2</td>
<td>Open burning of waste</td>
<td></td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>I_Waste</td>
<td>5D1</td>
<td>Domestic wastewater handling</td>
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<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>I_Waste</td>
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<td>Industrial wastewater handling</td>
<td></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>I_Waste</td>
<td>5D3</td>
<td>Other wastewater handling</td>
<td></td>
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<td>NO</td>
<td>NO</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>I_Waste</td>
<td>5E</td>
<td>Other waste (please specify in IIR)</td>
<td>(d)</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>M_Other</td>
<td>6A</td>
<td>Other (included in national total for entire territory) (please specify in IIR)</td>
<td>(e)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td><strong>NATIONAL TOTAL</strong></td>
<td></td>
<td>National total (based on fuel sold)</td>
<td></td>
<td>154.26</td>
<td>154.26</td>
<td>154.26</td>
<td>154.26</td>
<td>0.00</td>
</tr>
</tbody>
</table>
3.2. Annex I Emissions Reporting Template

Future Reporting

- The TFEIP ask EMEP to consider whether more sophisticated reporting software can be developed in the longer-term.
3.3. Consistency Between CLRTAP & NECD

Annual NECD Reviews of all MS
Annual CLRTAP Reviews – selected Parties

- Substantial efforts are being made to ensure that the review of CLRTAP and NECD submissions are consistent.

- This is becoming increasingly challenging.
4. Guidebook Update, 2019

Updates being funded by the EEA:
1. General Guidance Chapters (light update)
2. Agriculture chapters, and emissions calculation tool… includes biogas (in waste sector)
3. Road Transport Chapter already updated

Updates funded by Germany
4. Solvent use (selected sources)

Other Updates
5. Error fixes (identified from reviews)
6. PM from small-scale combustion??
4. Guidebook Update, 2019

Timeline
1. 1st order drafts by October 2018
2. “Final” drafts by end of 2018
3. To be reviewed for endorsement in May 2019 (annual TFEIP meeting).

Tier 1
Will be retained.
However… T2 or better for key sources could be more rigorously implemented through reviews.
5. Condensable PM – a Proposed Roadmap

Informal Meeting Paper (TFMM and TFEIP)

We ask that the SB approves the following approach and actions. That:

1. Parties shall explain inclusion/exclusion of condensables for each source and report emission factors (in their IIR)

2. For the purposes of modelling studies, TFMM/MSC-W may use expert estimates in place of PM emissions reported by Parties.
5. Condensable PM – a Proposed Roadmap

Informal Meeting Paper (TFMM and TFEIP)

Actions that will follow in 2019:

1. Modelers will discuss during TFMM how to better constrain the volatility at emission in models and if intermediate VOC can be covered by this approach.

2. Update to the EMEP/EEA Guidebook\(^1\): Definition of “condensables” to be added, Small-scale combustion EFs for solid fuels standardized to include condensables

\(^1\) Subject to securing funding.
5. Condensable PM – a Proposed Roadmap

Informal Meeting Paper (TFMM and TFEIP)

Longer-terms activities:

2022: Inventory review process could be used to target reporting of condensable PM, and promote standardization across Parties

(We request that it is possible to make minor revisions to the informal paper following discussions at the EMEP SB)
6. Future Work

Workplan

1. Annual TFEIP meeting and workshop
   • We have venues secured for 2019 (& 2020)

2. Guidebook update, 2019

3. Finalise Annex I Reporting template

4. Encourage Party participation, and contributions to Stage 3 reviews… and other core tasks

5. Strengthen links with modelling community
   • MSC-W & MSC-E to help identify improvement priorities
The TFEIP thanks everyone who has supported our work across the last year, and in particular:

The United Kingdom, the EEA, and Finland
Approval of the updated “Methods and Procedures” document:

- Review of inventories, now includes technical corrections etc.

Approval for approach & actions on condensables:

1. Parties report inclusion/exclusion of condensables
2. TFMM/MSC-W allowed to use expert estimates.
   - 2019: TFMM/MSC-W to discuss iVOC
   - 2019: Update to the EMEP/EEA Guidebook (TBC)
   - Inventory reviews used to progress standardization?