EXPERT PANEL COMBUSTION & INDUSTRY
Work plan and conclusions | Jeroen Kuenen, Carlo Trozzi
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Revised chapter was discussed. Main updates:

- Tier 2 methodology for biomass now includes (country specific) default information for countries on split between technologies
- This allows countries to use a Tier 2 (Tier 1.5) approach, even when they don’t have any specific technology split information themselves

Pros

- Move away from Tier 1, improve emission estimates, comply with reporting requirements for key sources

Cons

- Might take away incentives to collect own data
- Technology split may not be correct
There is a strong need for consistent reporting of PM from countries, in support of modelling and other uses of emission data. On the other hand, we need to understand that current policy targets and commitments are based on reporting as it is now. Options for improvement:

- Choose to report either filterable only PM or total PM including condensables.
- First priority: consistency between countries, could be potentially different between sectors.
- Report separately: keep PM as it is now (make it only filterable?) and add another component to the reporting “condensable/volatile fraction”

We need - as soon as possible - a decision what and how to report!
SMALL COMBUSTION CHAPTER

› We recommend the TFEIP to accept the chapter, provided a few changes:
  › Making clear the default splits provided are only to be used if you don’t have any other data, and the collection of your own data is always the preferable option
  › Review some of the uncertainty ranges as there were errors in there
Presentation from Ingrid Mawdsley (IVL, Sweden) on measurements of emissions from residential wood combustion in Nordic countries

Measurements in dilution tunnel, including condensables

For the situation with full load and dry wood:
- Lower emissions for wood log boilers and older/traditional stoves than Guidebook EFs.
- However EC emissions for stoves more consistent with Guidebook factors.

In case of part load and moist fuel, emission factors can go up a factor 4 and 5, respectively.
Ardi Link presented a measurement campaign in Estonia for small combustion. The main trigger for this research was that Estonia reported very high HCB emissions from the residential sector. Also, other emissions were measured, including PM (filterable only). Emissions were calculated, dispersion modelling was performed, and compared with measurements, generally showing good agreement. Improved emission factors were derived from the measurements, which have improved the Estonian emission inventory.
SMALL COMBUSTION / GRIDDING

- As a follow up of EDGAR workshop with TFEIP in 2014, the JRC EDGAR team (Marilena Muntean) prepared gridding tools for inventory compilers
- Last year, a gridding tool on road transport was presented
- This year, a gridding tool for residential combustion was provided
- User input are total emissions by sector, by technology
- Output is gridded maps according to the EDGAR methodology

- This is useful for countries that don’t have the capacity or knowledge to perform the spatial distribution themselves and can help to improve reporting of gridded data at 0.1°x0.1° under the Convention and the NEC Directive
HEAVY METALS FROM REFINERIES

- CONCAWE (Brian Smithers) presented updated emission factors for HMs based on measurements in refineries.
- Work is mainly intended to help the refineries reporting under E-PRTR but provides also valuable information that can improve the Guidebook.
- Updated measurements of HMs in refineries showed generally higher emissions from refinery gas combustion, somewhat lower Ni emissions from residual fuel oil combustion.
- In addition, updated EFs for NOx and CO from flaring are suggested.

The Expert Panel recommends to take up the new emission factors in the Guidebook, provided that some outstanding questions/issues regarding the data are resolved in the next weeks.
WORK PLAN 2017-2018

- Main priority for C&I is the further improvement of emissions from residential combustion, particularly wood
- A lot of information is available on emission factors (there are lot of measurements, etc.), the main challenge is to understand the burning practices and the share of fuel and appliance types
- Examine new information for pellet stoves

- Other topics
  - Update the Guidebook with new emission factors for HMs in refineries
  - Verification of waste / cremation EFs with recent work from Germany
  - **Condensables** => How to address this? Is larger than C&I as first a decision is needed how Parties should deal with it in their inventories to ensure consistency!
OTHER POINTS

1. Quarrying and mining: introduce a Tier 3 methodology, keeping in mind that the method should be robust enough to allow countries to use it if not all very detailed data are available
2. NMVOC from solvents: continue the work done in the last years and follow-up on the EEA funded Guidebook work
3. Make an assessment of the Tier used by the different Parties for some key sectors (we know that in some cases Tier 1 is used where a higher Tier should be used e.g. for key sources)
4. Improvement of guidance of emission estimates for HMs and POPs
5. Understand the relation between PM and NMVOC and harmonize reporting to avoid double counting and “missing” emissions
6. Emission factors for organic carbon and benzene
THANK YOU FOR YOUR ATTENTION