Combustion & Industry Expert Panel

Jeroen Kuenen, Carlo Trozzi

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Agenda

› NFR14 structure and sector conversion sheets
› Wood combustion
› Condensable organic emissions
› Country consultations on solvent VOC emissions
› PM from quarries
› Persistent organic pollutants
› Emissions from concrete batching
Recap from Istanbul: Work plan 2013/2014

› Priority list of further improvements to be made
› Finalise the new NFR structure and update the sector conversion sheets (SNAP, etc.)
› Continue work with solvent industry to improve VOC inventories
› Stress the importance of measurement techniques on PM emissions and concentrations
NFR14 sectors and conversion sheets

- NFR14 was discussed and is clear to inventory compilers
  - Some new sectors were introduced for C&I

- Joint effort by Estonia and Finland to update the sector conversion Excel file (NFR-SNAP-CRF-ISIC-GAINS-EPRTR) that is now available for the NFR09 (www.ceip.at)
  - Activity is supported by the Expert Panel
  - The effort is very much appreciated by Parties
  - Timing is important

- Aim is to finish this by the summer and send to EP, or rather the whole TFEIP, for comments.
Solvents

› Presentation from ESIG on VOC emissions from solvents
› Data sources:
  › Sales of solvent-containing products
  › Estimated amount of solvent released in the atmosphere
  › Data for 2008-2012 now available (2010-2012 preliminary)
  › Data for 2013 underway

› Confidentiality issue
  › Not all the underlying data available to inventory compilers
  › Nevertheless useful for cross-checking and improving quality of inventories

› Country consultations are ongoing to understand differences
PM from quarrying

- Emissions from category “2.A.7.a Quarrying and mining of minerals other than coal” were 15% of PM2.5 in French inventory based on industry EF
- EF in Guidebook 2009 much lower (multiple orders of magnitude)
- AP-42 methodology used to reassess the EF, work together with industry for almost 3 years
- 70 different quarries investigated

- EFs lower than old industry EFs, especially for smaller particles
- Similar to Guidebook 2013
Persistent Organic Pollutants

- Presentation on results so far from POPs group that started in 2011
- Main goal is to get a better understanding of the main sources of POPs and to improve the basis of the EFs

- Data from different countries are collected and compared for different sources
- Parties encouraged to keep exchanging information and emission factors with the POPs group

- Data collected will be made available through the EP website along with all presentations
- Contact: Kristina Juhrich (UBA)
Sulphur

- Discussion on definition of sulphur and compounds reporting in different reporting instruments:
  - LRTAP: SOX (all sulphur compounds expressed as SO2, including reduced sulphur compounds such as H2S)
  - Guidebook provides emission factors for SOx
  - SO2 content in SOx varies by source and by country
  - NECD: different composition?

- Need for harmonization
New activities for the inventories: concrete batching

- Concrete batching is not in the GB and SNAP;
- PM, consisting primarily of cement and pozzolan dust but including some aggregate and sand dust emissions, is the primary pollutant of concern. In addition, there are associated emissions of metals.
- All but one of the emission points (cement and pozzolan transfer in silos) are fugitive in nature.
- Tier 2 and Tier 3 can be derived from US EPA AP42;
- Tier 1 was proposed in presentation
- Tier 1 PM$_{10}$ gross estimate, based on European industrial association production data, gives high emissions (in average around 3% of the total national emissions for a sample of 17 EU member states)
Wood Combustion EFs and Activity data

- High variability of EFs: results from Italy ENEA study was reported with high differences, out of GB range, in PM EFs for conventional stoves (lower) and pellet (higher)
- EFs determination usually under laboratory conditions where we need to have real life EFs for domestic sector
- High variability of products under the term “wood” require more accurate statistical data and the use of appropriate EFs and mass-to-energy (LHV) conversion factors
- EFs seems in some case to include only filterable PM and not also condensable and in other case both (not always clear)
Small combustion

- The Monday workshop identified the lack of knowledge with regard to small combustion installations, particularly for PM from wood combustion
- Multiple issues play a role here:
  - What is wood? What is the mix of different biomass parts taken into account?
  - What are the appliances used, what is the mix of each of them?
  - How to distribute spatially/temporally?
Condensables

- How do we define PM?
  - Different measurement protocols in place in different countries
  - As a result, countries report different PM!

- We need harmonization
  - How do we define PM in our inventories?
  - Guidebook needs to contain information on the type of PM the EF includes (important in specific sectors)
Next steps on small combustion

- Most countries in the EP use the Tier 1 method
- There is no simple way to improve this
  - Funding is crucial, no “rainy Sunday afternoon” work
  - We strongly recommend the TFEIP to stress the importance of improving this

- What can the EP do?
  - Compare methods applied in countries, and write this down
  - Participation of the EP members is crucial
Work plan 2015-2016

› Small combustion
  › Stress the need for more research and data collection
  › Collect information from countries and compare

› Stress the need for harmonization of PM reporting (filterable, condensable), review of most important sectors

› Finalise the new NFR structure and update the sector conversion sheets (SNAP, etc.)

› Continue work with solvents industry on VOC emissions and understanding differences with inventories at sector level