

# CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

**EMEP/TFMM Workshop on the review of the MSC-E models on HMs and POPs  
13-14 October 2005, Hotel "Mir", Noviy Arbat 36/9, Moscow, Russia**

## **The main aim of the review and evaluation of the HM and POP model is**

*to establish whether they are state-of-the-art and fit for purpose of evaluating the contribution of long-range transport to the environmental impacts caused by heavy metals and persistent organic pollutants (EMEP/TFMM, Zagreb, Croatia, April 2005)*

## **Draft Agenda**

### **Thursday, 13 October**

8.30 Registration

**9.00 – 12.00 Plenary session** (*chairman Richard Derwent, UK*)

9.00 Welcome and opening of the meeting (*R.Derwent*)

9.20 Adoption of the agenda

9.30 Overview of activities concerning MSCE-HM and MSCE-POP model review (*S.Dutchak, MSC-E, Russia*)

9.50 An evaluation of emission data for HMs and POPs with emphasis on model applicability (*K.Breivik, CCC, Norway*)

10.20 Discussion

10.30 Coffee break

10.45 Current state of measurement data of HMs and POPs. (*T.Berg, CCC, Norway*)

11.15 Discussion

11.25 Preprocessing of meteorological data for modeling of HMs and POPs (*J.Christensen, Denmark*)

11.45 Discussion

11.55 Technical information on the division of Working Groups.

12.00 Lunch

## **13.00 - 18.00 Working Groups on HMs and POPs sessions**

### **I. Working Group on Heavy Metals** (*Chairman G.Petersen, Germany* *Rapporteur R.Bullock, USA*)

13.00 Introduction (*Chairman G.Petersen*)

#### **1. The MSCE-HM model formulation**

13.10 The MSCE-HM model: short overview (*O.Travnikov, MSC-E*)

13.30 Discussion focused on review of the MSCE-HM model formulation:

- Simulation of the atmospheric transport in air quality models (*introductory speaker D.Syrakov, Bulgaria*)
- Parameterization of dry and wet depositions (*introductory speaker R.Bullock, USA*)
- Atmospheric chemistry of mercury (*introductory speaker J.Munthe, Sweden*)

15.30 Concluding discussion

15.40 Coffee/tea break

#### **2. Intercomparison of heavy metal models**

16.00 Model intercomparison studies for Pb, Cd (*A.Ryaboshapko, MSC-E*)

16.30 Modelling of Pb and Cd in the Netherlands (*A.van Pul, the Netherlands*)

17.00 Intercomparison of mercury models (*M.Cohen, USA*)

17.30 Discussion

18.00 Closing of the WG on HMs session

### **II. Working Group on Persistent Organic Pollutants** (*Chairman I.Holoubek, Czech Republic* *Rapporteur A.Sweetman, UK*)

#### **1. Comparison of MSCE-POP calculation results with measurements**

13.00 Goals of the Working Group on POPs (*Chairman I.Holoubek*)

13.10 MSCE-POP model: short overview and model output (*V.Shatalov, MSC-E*)

13.30 Discussion

13.40 Comparison of MSCE-POP calculations against measurements (*A.Gusev, MSC-E*)

14.10 Discussion

14.25 Atmospheric concentrations and deposition fluxes of POPs in Northern Europe. Trends and seasonal and spatial variations (*E.Brorstrom-Lunden, Sweden*)

14.50 Discussion

15.05 Measurements by passive samplers and possibility of their usage for model validation (*A.Sweetman, UK*)

- 15.30 Discussion
- 15.40 Coffee break
- 16.00 Comparison of MSCE-POP calculations with available measurements with emphasis on data from the CR and Balkan countries - active and passive sampling campaigns  
(*I.Holoubek, Czech Republic*)
- 16.30 Discussion
- 16.40 Additional calculation experiments and comparison with measurements (*V.Shatalov, MSC-E*)
- 17.00 Discussion. Conclusions and recommendations
- 18.00 Closing of the WG on POPs session
- 

- 18.30 Social event

## **Friday, 14 October**

### **8.30 - 12.00 Working group on HMs and Working Group on POPs (continuation)**

#### **I. Working Group on Heavy Metals**

##### **2. Evaluation of the model performance against measurements**

- 8.30 Monitoring and emission data for the model evaluation (*I.Ilyin, MSC-E*)
- 9.00 Monitoring of heavy metals in Slovakia within EMEP (*M.Mitosinkova, Slovakia*)
- 9.10 Presentations of national experts
- 9.30 Results of the MSCE-HM model evaluation for Hg (*I.Ilyin, MSC-E*)
- 10.00 Deposition of Hg in forest – comparison of modeled and measured fluxes and application in critical load assessment (*J.Munthe, Sweden*)
- 10.30 Coffee break
- 10.40 Results of MSCE-HM model evaluation for Pb and Cd (*O.Travnikov, MSC-E*)
- 11.10 Discussion on the model compliance
- 11.25 Conclusions and recommendations. (Preparation of the report of WG on HMs to the plenary session)
- 12.00 Lunch

## II. Working Group on Persistent Organic Pollutants

### 2. POP model intercomparison study

- 8.30 State-of-the-art of POP model intercomparison study (*Chairman I.Holoubek*)
- 8.40 Different model approaches to the description of basic processes (*A.Sweetman, UK*)
- 9.00 Implementation of POPs in the aerosol version of the CHIMERE model (*B.Bessagnet, France*)
- 9.15 Main output of POP model intercomparison study (*E.Mantseva, MSC-E*)
- 9.35 Comparison of spatial and non-spatial POP models (*D.van de Meent, the Netherlands*)
- 10.55 Presentation of the ADEPT results (*M.Roemer, the Netherlands*)
- 11.15 Discussion
- 10.30 Coffee break
- 10.50 The POP model intercomparison study: steps towards a mechanistic interpretation of the results (*M.Scheringer, Switzerland*).
- 11.10 Discussion
- 11.20 Model development based on the results of POP model intercomparison study (*V.Shatalov, MSC-E*)
- 11.30 Discussion. Conclusions and recommendations. (Preparation of the report of WG on POPs to the plenary session)
- 12.00 Lunch

### 13.00 - 17.00 Plenary session

- 13.00 Prospective model approaches (*A.Auling, Germany; A.Gusev, Russia*)
- 13.40 Modeling heavy metals in European scale with Polyphemus/POLAIR3D: model description, early validation, sensitivity analysis and inverse modeling (*Y.Roustan, France*)
- 13.55 Outcome of Working Group on HMs (progress, problems, future research)
- 14.15 Discussion
- 14.30 Outcome of Working Group on POPs (progress, problems, future research)
- 14.50 Discussion
- 15.05 Coffee break
- 16.00 Draft minutes of the Workshop
- 17.00 Close of the meeting