

**Asia-Pacific Mercury Monitoring
Workshop
July 17-19, 2013**

Summary Statement

Workshop Participants

ARTZ	Richard	U.S.	NOAA
BLANCHARD	Pierrette	Canada	Environment Canada
CHU	Yu-Chi	Taiwan	Taiwan EPA
GARIVAIT	Hathairatana	Thailand	MOE Thailand
GAY	David	U.S.	NADP
HAMONANGAN	Esrom	Indonesia	MOE Indonesia
KANEKO	Motoo	Japan	MOE Japan
KIM	Young-Hee	Korea	National Institute of Environmental Research
MARUMOTO	Kohji	Japan	National Institute of Minamata Disease
NGUYEN	Van Thuy	Vietnam	Vietnam Environment Administration
NOVIKFOFF	Josh	U.S.	USEPA
OLSON	Mark	U.S.	NADP
SCHMELTZ	David	U.S.	USEPA
SHEU	Guey-Rong	Taiwan	National Central University
TEJALAKSANA	Aksa	Indonesia	MOE Indonesia

Summary of General Agreement

- Workshop participants generally agreed to develop a Pilot Network that monitors mercury wet deposition and atmospheric concentrations – Total Gaseous Mercury (TGM) or Speciated Mercury – Gaseous Elemental Mercury (GEM), Particulate Bound Mercury (PBM), Gaseous Oxidized Mercury (GOM); The network would include dry deposition calculations, where appropriate
 - Workshop participants also agreed information and training was needed to develop capabilities for monitoring mercury in air, precipitation, soil, sediment, fish, and humans
 - NADP/EPA /Network Partners are willing or will provide help with network development, training, knowledge transfer and/or help with instrument procurement
- Pilot Network Start Date: TBD; End Date: 3 years running time
- Workshop participants generally agreed to form a Scientific Advisory Group (SAG) to act as the steering body of the Pilot Network
 - One or two representatives from all participating partner organizations
 - Further membership to be discussed by SAG
- Current participants
 - Vietnam (VEA), Japan (MOE, NIMD likely), Korea (NIER possibly), Taiwan (EPAT, NCU), United States (EPA, NADP, NOAA), Indonesia (MOE likely), Thailand (MOE likely)

Summary of General Agreement (continued)

- One laboratory for analysis of wet deposition samples preferred for the Pilot Network
 - Taiwan (NCU) has agreed to perform sample analysis for the pilot network sites (provided the number of sites remains manageable)
 - Korea (NIER) and Japan (NIMD) would also like to use their own laboratories; Because multiple labs would likely be involved, an inter-laboratory comparison study would be required
 - Taiwan, Japan, and possibly Korea will assist agencies not yet able to perform laboratory analysis for wet deposition of mercury. The need to develop laboratory/analytical capabilities and provide related training was also identified
- Pilot Network should result in a data product(s), which might include:
 - Modeling/back trajectories from the regional observations
 - A map, statistical analysis, or data display for the region
- Sharing of the data
 - Will not be public at the start of the network; data will be available to the Scientific Advisory Group membership
 - Future?
- Common SOPs for monitoring and data review will be developed over Year 1

Summary of General Agreement (continued)

- Develop an information package to encourage support for and participation in a mercury monitoring pilot project. The package would be used by participants to inform and convince others that participation is important and should be done.
- The package would include:
 - A letter of invitation to join the pilot network from NADP, including benefits of participation.
 - A draft memorandum of agreement (or alternative) detailing expectation of the participating groups (NADP/EPAT agreement and other examples would be included)
 - A short, scientific document explaining the mercury problem aimed at non-scientists (NIMD and others have documents which are useful)
 - A short workshop report (of this meeting)
 - SOP for wet deposition and compendium of EPA methods
- This package will be routed to workshop participants for review, comment, and rewrite
- Final version completed Sep 15, 2013

Summary of General Agreement (continued)

- Workshop participants agreed that a next meeting was needed, preferably in Southeast Asia; a specific location and date has not yet been determined. The meeting would include members of the D.C. mercury workshop and other invited guests.
- Meeting Goal:
 - Further develop the Pilot Network and capacity building of the partners
 - Establish initial procedures for pilot wet deposition network monitoring; revise SOPs, as needed
 - Make progress on gaseous measurements, to include discussion and demonstration of the manual GEM methods and methods for particle bound mercury (I/O5)
 - Increase interest among partners
- Proposed Meeting Schedule (4 days)
 - Day 1: planning/meeting day
 - Day 2: demonstration of wet deposition methods for attendees; presentation of analytical methods
 - Day 3: demonstration of atmospheric concentration methods for attendees
 - Day 4: wrap up meeting and establish the SAG

Summary of General Agreement (continued)

- Summary of identified information and training needs
 1. Short scientific document explaining the mercury problem in the region aimed at non-scientists
 2. Monitoring mercury in air, precipitation, soil, sediment, fish, and humans
 3. laboratory/analytical (EPA) methods for mercury
 - EPA 1631, 1669, I/O5, single trap methods
 - Presentation on analytical methods at next workshop
 4. Outreach information package to encourage support for the Pilot Network
 5. SOPs for wet deposition and data review (to be shared through Google Drive)