Mercury-Containing Products Partnership Area
Meeting Report
Summary of Day One
28 April 2010

Overview

1. The annual meeting of the Mercury-Containing Products Partnership Area (Products Partnership) opened on 28 April 2010, at the Pepperdine University-Seaver College in Washington, D.C.

2. The meeting was hosted by the Partnership lead, Dr. Maria Doa of the U.S. Environment Protection Agency (EPA).

3. The meeting was attended by more than 40 attendees, representing 8 national governments and 5 non-governmental organizations. In addition, attendees included participants from 7 international organizations and 17 members of the U.S. federal government. In addition to Dr, Maria Doa, Professor Masaru Tanaka, lead of the Mercury Waste Management Partnership Area, and Michael Bender, lead of the Storage and Supply Partnership Area, were in attendance. A meeting attendance list is attached.

Opening Plenary: Overview of the UNEP Global Mercury Partnership

4. Dr. Desiree Narvaez of United Nations Environment Programme (UNEP) Chemicals branch of the Division of Technology, Industry and Economics provided an overview of the UNEP Global Mercury Partnership and how the Products Partnership – and all Partnership areas – might operate in accord with the forthcoming Intergovernmental Negotiating Committee (INC) meetings to elaborate a mercury legally-binding instrument. .She presented the UNEP Governing Council (GC) mandates since GC 21 (2001) until a breakthrough decision in GC 25 (2009) that called for the development of a mercury treaty. Negotiations will begin at INC 1 from 7-11 June in Stockholm and will finish by February 2013 with 5 INCs being planned. The future mercury treaty will include both binding and voluntary measures. Documents for mercury INC 1 are available at http://www.chem.unep.ch/mercury/INC/INC1/INC1_homepage.htm.

   The overall goal of the UNEP Global Mercury Partnership is to protect human health and the global environment from the release of mercury and its compounds by minimizing and, where feasible, ultimately eliminating global, anthropogenic mercury releases to air, water and land. Currently, there are 7 partnership areas: products, coal combustion, artisanal and small scale gold mining, chlor alkali, supply and storage, waste, fate and transport. The Mercury Partnership overarching framework was launched in 2008 and has currently 46 active partners. The Partnership generates important information for the treaty negotiation process, such as technical guidance documents and awareness raising materials. More partners are invited to join. Further information on the UNEP Global Mercury Partnership is available at http://www.chem.unep.ch/mercury/partnerships/new_partnership.htm.

5. Dr. Maria Doa of EPA provided a progress report on the status of the Products Partnership and previewed the new directions being considered, including the application of the lifecycle approach,, addressing emerging product sectors, and reviewing existing goals and objectives. Dr. Doa discussed the development of the Products Partnership since its inception, how projects involving health care facilities have been very successful, and how the Products Partnership was eager to expand projects to emerging product sectors and under-represented regions. She also discussed the importance of considering the lifecycle approach to mercury-containing products, as well as cross-cutting issues associated with Waste Management and Storage and Supply partnerships.

6. Key questions and comments included:

a. Participants discussed what was driving the ongoing production vinyl chloride monomer both in consumer products and construction. A voluntary catalyst substitution in China and applicable UNEP grants were cited.

b. Participants discussed the difficulties in finding funding and other mechanisms necessary to achieve the substitution of mercury-free alternatives. Reaching out to underrepresented nations, regions, and private sector parties was identified as a key area to explore.

c. Participants expressed concerns about future levels of support – monetary and political commitment – for the Partnerships and other voluntary programs as the INC process approaches. Participants also discussed that the Partnerships could be seen as a "two-way" vehicle to inform the INC process and to disseminate information from the INC process to constituents.

Updates on the Status and Results of Existing Projects

7. Vera Barrantes of the United Nations Institute for Training and Research (UNITAR) described the progress of mercury emissions and products inventories projects in Nicaragua, the Dominican Republic, and South Africa. The methodology to strengthen capacities in pilot countries towards sound mercury management was also presented. Stages of the methodology include development of a national situation analysis, a Mercury Emissions Inventory following UNEP's toolkit for Identification and Quantification of these releases, and development of a Mercury Risk Management Plan. The inventory includes quantification of emissions from mercury-containing products. The first pilot countries were Chile, Ecuador and Panama. Now these projects are being replicated in Nicaragua, Dominican Republic and South Africa. Examples of results obtained in the pilot projects, as well as in the ongoing projects in three new countries were presented. Synergies being achieved with other national and regional initiatives were also outlined.

8. Key questions and comments included:

    a. Participants inquired as to specific categories of emissions, including vinyl chloride polymer, artisanal gold mining, and waste incineration – and how those emissions were assessed. Participants also discussed how the reporting of point and non-point sources was essential, but often required increased outreach and education.

    b. The limitations of the use of customs data in tracking mercury-containing products were also discussed.

Catherine Galligan of the University of Massachusetts at Lowell (UMass), described the Sustainable Hospitals Program, which is working with partners in Ecuador and Mexico on a year-long project to engage healthcare stakeholders and train specialists and hospital staff in Latin America on mercury reduction. The Lowell Center for Sustainable Production, Dr. Margaret Quinn, Principal Investigator; is conducting a project to reduce mercury in two hospitals in Quito, Ecuador and two hospitals in Hermosillo, Mexico. Major goals of the project are to reduce the use of mercury-containing products, improve management of mercury-containing wastes, and to develop technical skills and organizational capacity so the work can be expanded and replicated in other hospitals.

The project was formally launched in the hospitals in Fall 2009 with a ceremony and presentations by hospital administrators, representatives of ministries of health and environment, university representatives, and our project team members. In this first year we have completed in each hospital: training on the hazards of mercury, a baseline assessment of policies and practices pertaining to mercury, and an inventory of mercury. An evaluation and pilot of alternative products is nearing completion. A workbook is being developed and

will be online in Spanish and English. Called *The ABCs of Mercury Reduction*, the workbook provides guidance on the process of reducing mercury (or other pollutants) and includes key resources for any hospital to undertake or expand a mercury reduction program. The draft workbook is not available http://www.sustainableproduction.org/MercuryProject.resources.php.

9. Key questions and comments included:

    a. Participants discussed how – in some instances – training exercises in hospitals require very basic outreach and education on the dangers associated with mercury and mercury-containing products. In addition to funding.

    b. Participants also discussed the potential for hospital inventories to be extrapolated to regional and national estimates, as well as ways to reach local, provincial, and national officials.

10. Clarice Sandoval of the Pan American Health Organization presented on behalf of the World Health Organization. Ms. Sandoval discussed progress in pilot projects in Nepal and Tanzania. **[Speakers are requested to submit a brief summary of their presentation after the completion of the meeting]**

11. Josh Karliner of Health Care Without Harm (HCWH) reported on the WHO-HCWH Global Initiative to Substitute Mercury-Based Medical devices with safer, affordable and accurate alternatives, which was initiated in July 2008. Overall, actions by hospitals, health care systems and governments around the world have put the Initiative on track or ahead of schedule to reach each of its Short-Term, 3-Year Objectives. Highlights include Argentina and the Philippines creating national policies to phase-out mercury-based medical devices. Four mega-cities—Buenos Aires, Mexico City, Delhi and Sao Paulo—having completed or in the process of phasing-out mercury medical devices in their health systems. And overall more than 5,000 developing country hospitals committed to mercury phase out. Momentum is growing and mercury-free health care is increasingly becoming the status quo in many countries. The Global Initiative is moving closer to a tipping point that will shift the dynamics of supply and demand in the global thermometer and blood pressure device markets away from mercury and toward the alternatives.

12. Key questions and comments included:

    a. Pharmaceutical uses of mercury and mercury preservatives used in vaccines were cited as an essential yet very challenging issue to be addressed. This topic was also cited as a good candidate to reach out to private sector parties.

    b. Other categories of mercury-containing products and equipment (e.g., thermometers in autoclaves), were proposed as additional areas of concern in health care facilities.

13. Matthias Kern of the Secretariat of the Basel Convention described the progress to date in efforts to identify gaps, raise awareness, exchange information, and develop environmentally sound waste management plans to safely manage mercury wastes in a regional pilot project in Latin America and the Caribbean (Argentina, Costa Rica, and Uruguay). The project will support the development of inventories, decision supportive tools, awareness raising material and national plans, and will build institutional capacity to manage mercury containing wastes on national level. It is planned to build a temporary storage facility in at least one country. Mr. Kern also indicated that the 5th draft of the Technical Guidelines for the Environmentally Sound Management of Wastes Consisting of, Containing or Contaminated with Mercury is available on the Basel Convention website since January 2010 for comments. The next steps in the further development of the technical guidelines will be discussed during the Basel Convention Open-Ended Working Group meeting in Geneva from 10-14 May 2010.

14. Key questions and comments included:

    a. Participants discussed the need to differentiate between storage for immediate necessity (e.g., interim) versus permanent storage solutions. There was also discussion of the need to define key terms, such as "mercury waste" in the storage and collection context; it was cited that waste management often entails techniques that follow collection and separation phases.

    b. Participants discussed that it is essential that the cost of mercury as a commodity is the primary driver of storage and waste management issues. It was also agreed that the cost of storage and waste management itself is generally overlooked in the valuation of mercury.

    c. Participants also discussed the sensitivity of developing nations to export bans that do not capture mercury-containing products because they are limited to bulk elemental mercury.

The Transition to Mercury Free Products and Emerging Product Areas

15. Dr. Desiree Narvaez of UNEP discussed the status of mercury-containing products and several categories of products that are poised for transition to mercury-free alternatives. She highlighted a UNEP commissioned Massachusetts Lowell Center study revealing that most of mercury containing products have available alternatives. Transition success (defined as more than 50% of governments indicating non-mercury substitutes are available, are commonly used, and with no negative consequences) were demonstrated in switches/relays, thermometers, sphygmomanometers, thermostats, batteries (other than button cells), and in HID auto discharge lamps. Some U.S. states and EU countries have mercury product legislations that facilitate the shift to non-mercury products. However, challenges remain in 3 product categories: button cell batteries, lamps of various types, and dental amalgam. Inter-related issues of production capacity, cost, and quality control would benefit from mercury product treaty coverage.

16. Key questions and comments included:

    a. Participants cited the quality control of mercury-free alternatives as essential.

    b. Participants restated the importance of better describing the costs of waste management could be a mechanism to demonstrating the benefits of mercury-free alternatives.

17. Dr. Gerald Sawula described the use of a screening level tool being developed to inventory mercury-containing products and other processes in Africa. **[Speakers are requested to submit a brief summary of their presentation after the completion of the meeting]**

18. Key questions and comments included:

    a. All participants agreed that the emerging category of cosmetics must be addressed.

    b. The feasibility and ongoing development of the screening tool used in Africa was discussed, as well as its applicability to other regions.

– Dental Amalgam

19. Dr. Peter Cooney of the World Dental Federation provided an overview of the use of dental amalgam in dental practice from global perspective. **[Speakers are requested to submit a brief summary of their presentation after the completion of the meeting]**

20. Key questions and comments included:

    a. Participants commended successes in the rates of voluntary implementation of dental amalgam separators in Canada, as well as guidance aimed to reduce the use of dental amalgam for children and mothers.

    b. Participants discussed the desire to reduce the use of dental amalgam as much as possible in the future, as well as the challenges of dealing with a traditionally accepted product and technique. It was suggested that a "middle of the road" approach could be an area of development with private sector entities.

    c. Participants also discussed the need to further discuss and – potentially – reconcile discrepancies in reference dose estimates.

21. Dr. Desiree Narvaez of UNEP reviewed environmental releases and global trade issues associated with dental amalgam. Dental amalgam is approximately 50% mercury. Globally it accounted for 250-300 tonnes of total mercury demand and was a significant source of mercury emissions in 2005. Pathways and end-uses (country, quantity) of dental mercury are very difficult to know more precisely due to tariff codes, reporting requirements, easy diversion to other uses (i.e., artisanal small scale gold mining), and because mercury is released in many ways. Various studies have confirmed that concentrations of mercury in fish increased in the presence of dental amalgam in the water and that two thirds of dental amalgam used is released to the environment. WHO Experts consultation on future dental restorative materials conducted last November 2009 in Geneva, co-sponsored by UNEP, was organized in response to global consensus to transition away from mercury over time through negotiation of a legally binding instrument. It served as a platform for sharing scientific information and country experience. The meeting recognized positive attitude to use of alternative restorative materials and the report will be available soon. Observations gained from the meeting include: Alternatives to amalgam are not available yet for use globally; potential alternatives include glass ionomers and composites; recognized differences in needs of developed and developing world; cost factors currently do not consider environmental burden; an overall near term ban on amalgam would be problematic for public health and the dental sector where in some cases amalgam is still the preferred choice. Possible priority actions include: (1) Promote preventative model and alternatives to amalgam: WHO is considering the development of global guidelines for filling material criteria and use; continued research and development for effective alternatives; entire dental sector (including educators) to play a role in promoting preventative model and alternatives; (2) Consider releases of mercury from the life cycle of dental amalgam: promote transparency and tracking of mercury trade which may be a reality under the mercury treaty; implement waste management measures; and (3) Increase awareness of the global mercury issue: raise awareness of dental professionals; and engage dental insurance industry. The dental community has an opportunity for recognized leadership and responsible stewardship. A proposed next step is for WHO, FDI and other dental sector partners to move towards a phase down approach in the global use of dental amalgam.

22. Linda Barr of EPA discussed federal waste management strategies for dental amalgam in the United States. Ms. Barr also described a voluntary dental amalgam collection and retirement program and teaching module under development. Ms. Barr reviewed the likely exposure pathways associated with dental amalgam that enters the waste water stream, including publicly owned treatment works, incineration of sludges, and sludges that are used in agricultural applications. She also discussed the existing Memorandum of Understanding between EPA, professional dentists, and water treatment associations advocating the voluntary use of best management strategies to handle dental amalgam. Ms. Barr also described the U.S. EPA and Marquette University School of Dentistry' jointly-developed environmentally responsible dentistry teaching module to educate dental students on proper amalgam waste management. The module aims to raise dental students' awareness of the dental amalgam waste issue and to provide the students with practical steps to reduce the release of amalgam waste to the environment. The module, titled *Dental Amalgam Recycling: Principles,*

Pathways, and Practices, highlights actions to properly manage amalgam waste: proper handling, separating, and recycling of dental amalgam waste, including the installation of amalgam separators. The module highlights ADA's best management practices for amalgam waste and encourage dental students to practice environmentally responsible dentistry.

23. Key questions and comments included:

    a. The teaching module and recent commitments by a private sector attendee were commended.

    b. It was noted that crematoria are a growing source of mercury emissions due to the rise in land burial costs.

    c. Participants discussed the possibility that lifecycle emissions might result in greater emissions totals for dental amalgam.

    d. Participants inquired about the technical specifications for the "gray bag" technology and agreed to follow up at a later point in time.

    e. It was noted that the occupational exposures of dentist and their staff, as well as and the cost of the consequences on their health have to be taken into account when phase out of the uses of mercury amalgam are considered. A better follow up of the exposure of workers that deal with mercury amalgam could provide better information on the possible health consequences for other professionals that handle and work with mercury amalgam.

– Fluorescent Lamps

24. Alicia Culver of the Green Purchasing Institute delivered a comprehensive analysis of the content issues and how the development of content standards can contribute to the reduction and elimination of the use of mercury-containing lamps, which can drive the market away from further manufacture of such lamps. **[Speakers are requested to submit a brief summary of their presentation after the completion of the meeting]**

25. Key questions and comments included:

    a. Participants asked about the current feasibility of LED lamps in non-industrial settings. It was acknowledged that brightness and "fading" remain concerns among consumers. Availability in the context of – in some cases – prohibitive costs was also mentioned.

    b. Participants noted that this product category had special weight due to its unique place in mercury and climate change issues. This demonstrated the challenge of advocating an energy-efficient technology manifested as advocating the placement of mercury in homes and other settings.

    c. An industry co-sponsored GEF project was cited. Participants discussed the possibility of drafting a letter on behalf of the Products Partnership to engage and support UNEP/DTIE/GEF efforts in the context of fluorescent lamps.

    d. Participants discussed scenarios where energy-efficient mercury-containing lamps are distributed in homes, schools, hospitals and other locations, which can increase the risk of direct exposure should lamps break in living, learning, recreational spaces where children and pregnant women may be directly exposed.

e. Particpants also discussed the difficulties associated with collection, transport, and disposal (short-term and final) of the containing mercury lamps; it was noted that, independent from the amount of mercury a particular lamp may contain, such products and potential releases represent an important and wide source of mercury to the environment.

Mercury-Containing Products Partnership Area
Meeting Report
Summary of Day Two
29 April 2010

The Transition to Mercury Free Products and Emerging Product Areas (cont'd)

1. The second day of the annual meeting of the Mercury-Containing Products Partnership Area, 29 April 2010, opened with the final discussion of emerging product sectors: button cell batteries.

2. Catherine Galligan of UMass shared an anecdote about a possible avenue to leverage the use of LED lamps due to their longevity and durability in the context of safety lighting in commercial and industrial facilities.

– Button Cell Batteries

3. Thomas Groeneveld of U.S. EPA presented on issues pertaining to button cell batteries, particularly mandatory and voluntary measures in the United States. In addition to overview of mercury consumption trends in button-cell batteries, Mr. Groeneveld provided a summary of national and global consumption trends, as well as considerations associated with mercury-free substitutes. He also cited existing and developing mandatory and voluntary measures to reduce or eliminate the manufacture and sale of mercury button-cell batteries in the United States.

4. Key questions and comments included:
    a. Participants discussed the benefits of contacting manufacturers and other sources of primary data to obtain better information on batteries. In addition, the Technical Guidelines were mentioned as a resource that covers batteries.

    b. Batteries were also noted as a good representative of the lifecycle approach given the focus on product manufacture and end-of-life management. Participants also noted the importance of working with local and provincial governments as they often administer collection programs. An example from Japan was cited where collection and recycling is a voluntary practice, but manufactures supply collection bins.

    c. Participants stated that – in many cases – most or all batteries were imported and control in the borders and customs is difficult due the lack of harmonized labeling.

    d. Novelty items that contain button cell batteries were cited as particularly challenging for tracking purposes and in the way that they can be targeted at children, are relatively inexpensive, and are typically disposed in household waste.

    e. Participants noted that in many instances the overall content in batteries has decreased significantly; in turn, emissions via incineration – aided by better technologies – have also decreased. However, participants agreed that batteries were still a major concern. In fact, beyond manufacture and waste management, issues of export (and the prevention of exports from developed to developing nations) were cited as critical.

Opportunities for Projects in Different Regions

5. Long Rithirak presented on the efforts to address mercury-containing products in Thailand. Based on a 2008 national inventory, a 2009-2011 National Action Plan. Mr. Rithirak described a local battery waste collection program, which provided incentives for voluntary collection in the capital (a major urban center). Identified

priorities included batteries, dental amalgam, fever thermometers, and artisanal mining. Other thermometers are of interest, but medical varieties are emphasized.

6. Key questions and comments included:
    a. Participants inquired whether it was possible to identify mercury-containing batteries during the course of collection and separation. Contributing to the challenge is the fact that all batteries are imported and it is difficult to differentiate content.

    b. Current pilot project efforts are limited to a single city.

    c. Participants inquired about the relative safety of the storage facility; the batteries are placed into metal containers and leakage is a concern. Impacts on the immediate indoor area where the batteries are contained are also a concern.

    d. Participants asked if officials had approached – in addition to original manufacturers – other countries and end-users who might be interested in accepting the spent batteries.

7. Dr. Gerald Sawula presented on the efforts to address mercury-containing products in Uganda. Priorities were identified as dental amalgam, electrical appliances, laboratory chemicals, batteries, and cosmetics (especially skin-lightening creams). Particular emphasis was placed on the preference for the creams in rural areas, where outreach and education is a great challenge. An even greater challenge is the absence of a centralized program to collect information and address mercury-containing products. While there are overarching environmental laws, none specifically address mercury. The lack of information to guide decision-making was also identified.

8. Key questions and comments included:
    a. The importance of having an assigned desk officer was identified – although the optimal scenario would be the capacity to hire a mercury-specific official.

    b. Participants reiterated the importance of hearing the needs of developing countries to create critical mass and momentum to create global commitments and consensus on how to address mercury issues.

    c. Data is not readily available on the amount of mercury consumed, imported, and exported due to the lack of a centralized mercury program; data can be very limited and fragmented. Participants suggested references in draft technical guidelines; guidance including, but not limited to mercury waste was cited as necessary (i.e., even basic outreach and education).

    d. A suggested starting point was the counting and tracking mercury products via inquiries with trade partners and other import/export data.

9. Dr. Lillian Corra presented the project under the SAICM QSP coordinated by the International Society of Doctors for the Environment (ISDE) in six countries of South America (Argentina, Bolivia, Chile, Paraguay, Peru and Uruguay). Dr. Corra emphasized that the project pointed to increased awareness on mercury effects on health, mercury containing products in the market, and the need to develop mercury strategies to collect and safely dispose mercury household containing products at the end of their cycle of life. The two-year project involved health and environment governmental partners working with non-governmental organizations, such as the Societies of Pediatrics. The project was a multi-sector and participative project open to all the stakeholders involved in the issue. The inventory, educational materials, conclusions, and recommendations are located a Web site created under the Basel Convention Regional Centre for South

America and available in Spanish for all the Latin American countries. (Dr. Corra demonstrated the Web site created by the project).

10. Key questions and comments included:
    a. The importance of labeling on specific products (e.g., mercury content) and notification on imported products. Another specific area of concern was waste management – particularly in technical assistance.

    b. Participants suggested that the tool was very helpful and could be enhanced by adding information on amounts of mercury (i.e., concentration) in various product sectors.

    c. The inclusion and commitments of the high-ranking officials in pediatric societies was cited as particularly promising.

11. Gustavo Solorzano Ochoa presented on the efforts to address mercury-containing products in Mexico. Again, the challenges of the lack of a centralized regulatory scheme for mercury were identified. Mr. Solorzano described a national mercury market study and products inventory. In addition, Mexico is pursuing the assessment of primary and secondary mercury supplies – an outgrowth of the U.S. and EU elemental mercury bans. Among challenges faced by many partner nations, the illegal markets and the cultural use of mercury were noted as prevalent in certain regions of Mexico. Emerging efforts to monitor fish tissue, sediments, and wet deposition also were mentioned.

12. Key questions and comments included:
    a. Participants discussed the need to promote coordination by nation and regionally so that efforts are not isolated and forgotten when project periods conclude. Mr. Solorzano mentioned that Mexico elaborated its mercury releases inventory using UNEP's Toolkit and wanted to share our experience with other countries in the region and learn from their experiences. In order to do so Mexico is hosting a regional workshop in Mexico City with the participation of Canada, Chile, Ecuador, Panama and the United States.

    b. Participants proposed the possibility of resin subsidies (and other products) to replace mercury-containing products. An alternative was suggested that organizations can also promote the environmentally safe alternatives.

    c. Participants suggested that it would be helpful in preparations for INC 1 for all governmental representation to coordinate as much as possible with various departments and ministries, which will be required to comprehensively address mercury issues. It was also mentioned that emphasis should be placed on emerging issues, such as products and exports.

    d. The utility of using Lumex testing was described, not only in production facilities, but also where interim storage of mercury is occurring.

Opportunities for Coordination with Other Partnerships on Cross-cutting Issues

13. Professor Masaru Tanaka and Takeshi Sekiya presented on the Mercury Waste Management Partnership Area. Mr. Sekiya highlighted the challenges and ideas shared by participants in the most recent meeting of the Waste Management Partnership in March 2010. He also highlighted the objectives, scope, and status of the BAT/BEP Guidance for reduction of mercury releases from waste management, as well as its relationship to the draft Basel Technical Guidelines on Environmentally Sound Management of Wastes Consisting of, Containing or Contaminated with mercury. Key principles cited waste management included collection, recycling (including a take-back system and incentives), establishing recovery facilities, and cost-sharing by

14. Professor Tanaka presented on successful efforts of the Waste Management Partnership, including how the BAT/BEP guidance could be used as a mechanism to not only promote good examples (i.e., guidance) but also provide technical assistance (i.e., technical guidelines). He also demonstrated successful risk management pilots for dry cell batteries and the co-benefits of controlling air pollutants. For batteries, he discussed how technical reporting and public outreach resulted in calls for better collection and management strategies, which led to the development of mercury-free alternatives; this case was cited as an example of coordination between the product manufactures and the waste management sector. For the co-benefits of air pollutant regulation, Professor Tanaka noted that retrofitting gas treatment technologies for dioxin and other pollutants also increased removal efficiency of mercury. He also provided a conceptual model of the products lifecycle, which he differentiated between the products and waste lifecycles. A key consideration was the amount of resources (e.g., energy, natural, economic) put into each lifecycle and the resulting waste by-products. He cited the comprehensive nature of the issues considered in this process: scientific, human health, environmental, economic, and social; each component played into a larger cost-benefit analysis. One potential outcome of this process could be reaching out to manufacturers to "design for the environment" to reduce both endpoints of the product and waste lifecycles.

15. Key questions and comments included:
    a. The idea of joint projects was seconded by the lead of the Products Partnership. It was suggested that this approach could serve to drive the implementation and finalization of the BAT/BEP Guidance and Basel Technical Guidelines.

    b. Participants discussed the differentiation between storage and waste management – and at what point (or what criteria determined) mercury transitions from "interim storage" to "long-term storage" to "waste management." Participants agreed that this could be a significant discussion during the upcoming INC1 meeting.

16. Michael Bender presented on Mercury Storage and Supply Partnership Area. Mr. Bender highlighted the core concept of the partnership – that controlling supply is more efficient than curtailing manufacture and managing wastes. He also spoke to the interim nature of the partnership and its reduction goals and opportunities (e.g., added mercury export restrictions, storage of chlor-alkali surpluses, and less primary mining). Mr. Bender also described ongoing and developing projects in the Storage and Supply Partnership, including a framework document intended for presentation at INC1. He identified next steps his goal to "sunset" this partnership if efforts deal with mercury storage and supply are successful.

17. Key questions and comments included:
    a. Participants discussed the challenges of establishing regional storage facilities, particularly due to differing regulations applicable the import and storage of waste. Efforts to raise awareness among regional governments are seen as a good start.

    b. The technical challenges surrounding stabilization were also described; in addition, it was emphasized the interim storage of products need to be addressed in some form among the Products, Waste Management, Storage and Supply Partnerships, as well as SBC.

Existing Reduction Goals and Merits of Developing Quantifiable Measures and Appropriate Monitoring Tools

18. Ned Brooks presented on the status of current Products Partnership goals and measures, and how they might be enhanced. He also described activities of the Quicksilver Caucus and the mercury issues and products advocated by various states within the United States; thermostats, fluorescent lighting, motor vehicle switches, and dental amalgam were cited as key areas of emphasis. He also described the information clearinghouse, the Interstate Mercury Clearinghouse (IMERC). Mr. Brooks also explored the status of current use and reduction goals for the Products Partnership and whether or not they were achievable on a global scale. Mr. Brooks suggested that the most recent date collected by IMERC showing a 46% reduction in mercury product sales between 2001-2007, suggests that the current goals are achievable with a "focused reduction" scenario. He proposed that additional goals be considered that would apply to mercury products outside of use reduction (e.g., number of inventories), as well as indicators beneath the more overarching goals or the possibility that product sectors and experts/practitioners could propose modifications or additional goals. Mr. Brooks also proposed that different kinds of measures could be considered, such as amounts of mercury retired and collected or amount of products "not purchased."

    a. It was proposed that the goals for dental amalgam could be modified, which could be informed by a survey of dental amalgam manufacturers and dental practitioners, as to the amounts of mercury actually being used in the global dental sector. This could serve as a baseline from which to operate.

    b. It was proposed that a global initiative, similar to health care, that would address dental amalgam.

    c. It was also discussed that the generation of numbers – especially on a regional basis – can be very challenging.

    d. A proposal was made that two statements pertaining to dental amalgam be considered by members of the Products Partnership:

        Recognizing the importance of preventing disease, that governments foster and ensure appropriate prevention of dental decay [and promotion of environmental health],

        Phase-down of amalgam use can occur where appropriate and where affordable alternative materials exist and where not, that acceptable mercury handling, management and pollution prevention practices be utilized.

        *Please note: Participants are continuing to discuss these statements and will report to the Products Partnership to update the status of conversations.

    e. Dr. Maria Doa proposed that the statement be recorded in the Meeting Report and circulated for comment to the Partnership. Further, she requested that, if interest remains, that the statements could continue to be developed and submitted for consideration by the Products Partnership.

    f. Dr. Maria Doa also proposed a follow-up teleconference to further develop this concept. Those who are interested should provide comment to Thomas Groeneveld at groeneveld.thomas@epa.gov.

    g. Dr. Desiree Narvaez proposed that the statements be submitted to the PAG in September. She also urged that “promotion of dental health” be considered in the statements pertaining to dental amalgam.

h. Dr. Maria Doa proposed that batteries and lighting be targeted for joint project development with the Waste Management Partnership. Mr. Bender urged that participants be mindful that the use of lamps will be expected to rise and that content standards were a key component to be considered by Partners.

i. Dr. Maria Doa also urged that the Products Partnership place increased emphasis on cosmetics and pharmaceuticals. Mr. Bender suggested that skin-lightening creams be addressed as a separate category; a similar suggestion was made for cultural/traditional uses. Mr. Solorzano mentioned that some cultural/traditional uses of mercury would be driven by the fluctuating cost of mercury.

j. Mr. Bender suggested that COMTRADE tracking of dental amalgam is frustrated by its current categorization (i.e., multiple versus uniform protocol).

k. Dr. Lillian Corra urged that Partnership concentrate on electrical and electronic equipment.

l. Catherine Galligan mentioned difficulties in tracking broken products in occupational settings due to blame and discipline issues that workers may face.

Goals for Products Partnership in the Context of Other Fora

19. Dr. Maria Doa of EPA led an open conversation of the goals of Products Partnership in other fora, including the INC and PAG processes.