



North American Commission for Environmental Cooperation CEC-Americas Workshop to Reduce Mercury Use in Products

*Hyatt Regency Merida
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February 21st to 23rd, 2006

Meeting Summary

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Welcome and Opening Remarks

Ernesto Navarro Reynoso Director General de Gestión Integral de Materiales y Actividades Riesgosas, SEMARNAT, and Mexico's representative for the Working Group on the Sound Management of Chemicals (SMOC) of the Commission for Environmental Cooperation (CEC), opened the meeting and welcomed the participants. Introductory remarks were provided by Sr. Marco Pinzón from the regional office of UNEP, Denise Wright, US EPA, Chair of the CEC's Mercury Task Force and Luke Trip, Program Manager for the Sound Management of Chemicals from the CEC.

Session 1: Mercury Partnerships

Overview of UNEP Mercury Program and Global Partnership for Mercury Reduction in Products - *Juan Caicedo, UNEP*

Mr. Caicedo, of the United Nations Environment Program in Geneva is responsible for the UNEP Mercury Program as well as other work on lead and cadmium. Mr. Caicedo gave an overview of the development of the UNEP Mercury Program. In February of 2005, UNEP chemicals, through the Mercury Program, invited countries to provide information about their mercury related programs and to identify priority areas for future mercury actions. The following websites contain more information: www.chem.unep.ch/mercury/, [www.chem.unep.ch/Pb and Cd/](http://www.chem.unep.ch/Pb_and_Cd/). Please see attached presentation "Caicedo.ppt".

Global Mercury Partnerships - *Denise Wright, US EPA*

Ms. Wright outlined the US commitments to the Global Mercury Partnerships and discussed current partnership activities and initiatives, including chlor-alkali manufacturing (contact Angela Bandemehr at bandemehr.angela@epa.gov), artisanal and small scale gold mining (Marianne Bailey at bailey.marianne@epa.gov), coal fired power (Carl Mazza at mazza.carl@epa.gov) and mercury containing products (Denise Wright at wright.denise@epa.gov).

The US is also discussing the development of mercury release inventories in China and India and supports ongoing activities of the UNEP Mercury Program. The EPA contact for mercury release inventories is Ellie McCann at mccann.ellie@epa.gov. Please see presentation attached "Wright1.ppt".

Overview of CEC and North American Regional Action Plan on Mercury - *Luke Trip, CEC*

Mr. Trip outlined the current programs under the Commission for Environmental Cooperation (CEC) focusing on the Sound Management of Chemicals Program (SMOC). The North American Regional Action Plan (NARAP) on Mercury is a trilateral initiative addressing the reduction of mercury use and emissions throughout North America. This NARAP contains 85 individual action items in 6 sections. Product related recommendations include actions on:

- Life cycle management practices and substitution options for mercury
- Automotive vehicle and equipment manufacturing sector
- Mercury cell chlor-alkali sector
- Dry cell battery manufacturing sector
- Electrical switches and relays sector

- Lamp manufacturing sector
- Health and dental care sectors
- Cultural and artisanal uses

The action plan is available electronically at

http://www.cec.org/programs_projects/pollutants_health/project/index.cfm?projectID=25&varlan=english

Please see presentation “Trip1.ppt”.

Question: In reference to the NARAP on PCB’s, a US state representative asked how the CEC approached the remediation of PCB contaminated soils.

Response: Soils are referenced in the plan, and national programs of the three countries are responsible for clean up of contaminated soils in their respective countries.

Comment: It was suggested that the CEC consider a trilateral approach to PCB soil remediation.

Question: An ENGO representative asked for more information on the trinational blood biomonitoring project. Response: This study is developing data on persistent organic pollutants and some metals from first birth mothers in Canada, USA and Mexico, More information can be found at <http://www.cec.org/trio/stories/index.cfm?ed=16&ID=181&varlan=english>.

Session 2: Identifying the Problem

Domestic & International Sources of Mercury Used in Products & Processes - *Luke Trip, CEC*

Mr. Trip gave an overview of the domestic and international sources of mercury used in products. Currently, the largest mercury mine in the world is thought to be in China, rather than in Spain. Byproduct mercury results from mining of other metals including silver and gold, potentially during the production of bauxite, and is thought to be extracted from some gas streams during the production of natural gas. Mercury is recycled from spent mercury- containing products and from the mercury- cell chlor-alkali process.

There may also be recovered historical mercury from reprocessing facilities near old silver and gold mine sites. This mercury may have originated from mines in Spain and Peru, and other mines operating between 1500 and 1850. It was brought to North, Central and South America and used for silver and gold mining by the amalgamation process. The current form of this mercury is unknown and is thought to be incorporated into soils and sediments, either in elemental form or as inorganic mercury compounds. There is considerable difficulty in accounting for both the import and export of this “recovered” mercury. There are also industrial sources of mercury, the largest being from the mercury- cell chlor-alkali sector and stockpiles of mercury, as mercury was formerly retained as a strategic metal. Please see presentation attached “Trip2.ppt”.

Identifying Mercury Products & How Products Contribute to Releases - *Ned Brooks, Minnesota Pollution Control*

Mr. Brooks presented information on specific products containing elemental mercury as well as mercury in compounds. He noted that mercury in consumer products may be mixed with other wastes and incinerated, mostly without mercury controls in many countries. Releases to water usually result from domestic sewage and industrial sources, surface run off and landfill leaching.

Releases to land result from waste disposal, spills, and ash and sewage sludge disposal. Please see presentation attached “Brooks1.ppt”.

Human Exposure from Mercury in Cosmetics and Other Products – *Michael Bender, Mercury Policy Project*

Mercury in skin lightening products poses a risk to human health and can be found in some specialized soaps and creams globally. These products may be manufactured in Dubai, Thailand, Taiwan, and Mexico and may be exported to Indonesia and South Africa. The environmental community recommends required reporting for manufacture and trade in mercury soaps/cosmetics, education of health care professionals and populations as risk, issuance of a worldwide bulletin on mercury in these products and an end to the manufacture of these products. They encourage a global study on alternatives to Thimerosal in vaccines and recommend discouraging dental amalgam use in women of child bearing age, infants and children.

There are reported ritualistic uses of elemental mercury, including drinking, sprinkling and burning of mercury in homes in Caribbean and Latin American countries. An EPA report suggests that these uses pose a significant risk of exposure to users, since indoor mercury vapours permeate entire residences. <http://www.epa.gov/superfund/action/community/mercury.pdf>

For information see www.mercurypolicy.org. Mr. Bender noted a report on the State of the World by Worldwatch that contains a section on mercury. This report is translated into Spanish and can be found at www.worldwatch.org. Please see attached presentation “Bender.ppt”.

Mercury Export/Import: Reports, Data Issues, Customs Reporting Protocols & Discussion

Mercury Import/Export Data Issues - *Tim Whitehouse, CEC*

Three reports have been produced by the CEC that relate to import /export issues mentioning mercury:

- 2005 Report: *Crossing the Border: Opportunities to Improve the Tracking of Transboundary Hazardous Waste Shipments in North America.*
http://www.cec.org/files/pdf/LAWPOLICY/Crossing-the-Border_en.pdf
- 2003 Report: *Mechanisms for Tracking Mercury Imports and Exports for Use and Disposal in Canada, Mexico and the United States*
http://www.cec.org/pubs_docs/documents/index.cfm?varlan=english&ID=1289
- Taking Stock On-line www.cec.org/takingstock with Pollutant Release and Transfer Registry (PRTR) information from the Canadian National Pollutant Release Inventory (NPRI), American Toxics Release Inventory (TRI), and the Mexican Registry of Emissions and Transfer of Contaminants (RETC).

Please see the attached presentation “Whitehouse.ppt”.

Mercury Global Market Study and Trade Issues - *Tim Lehman, US EPA*

Sources of mercury in the US include mercury from recycling, waste recovery, and sales from closed chlor-alkali facilities. The US has federal and state stockpiles of mercury.

The US contributes 255 metric tons to global supplies through secondary sources. Global stocks are thought to be 22,000 metric tons from chlor alkali and 4,582 from US government stockpiles,

which are being stored. The trends for supply and demand suggest that in the coming years there will be an excess of mercury stockpiles. It is unclear whether the mercury exported from the US is consumed in receiving countries or re-exported to third parties, or stored for future sale. The US has also imported mercury from other countries.

The first step in a comprehensive plan for any country is to understand which sectors and products consume mercury and from where the supply originates. Trade statistics can reveal some flows of mercury, but may not accurately describe the fate of mercury usage and whether some imported mercury is later re-exported. Please see attached presentation “Lehman1.ppt”.

Question: A US state representative asked how the countries can effectively track small quantities of mercury, for example quantities under their current release reporting limit of 10 lbs.

Response: It was noted that there is a long term effort to move to computerization for the three NAFTA countries but the information will only be as good as what is collected on the paper and will be limited by domestic tariff and waste codes. Mr. Bender noted a recent effort by ENGOs to promote tracking of mercury trade at the global level at the meeting of the UNEP Governing Council in Nairobi.

Someone asked about the REACH program (Registration, Evaluation and Authorization of Chemicals) which is a European initiative to not only inventory chemicals under the Pollutant Release and Transfer Registries (PRTR) but also to provide toxicity and quantity information in a more regulated manner. The REACH program proposes to impose greater responsibility on industry to manage the risks from a large suite of chemicals and to provide safety information on the substances.

Session 3: Current North American Programs and Efforts

U.S. Mercury Reduction Programs - *Denise Wright, US EPA*

The US EPA has implemented regulations that ban mercury in paint, ban mercury in batteries except button cell batteries, and control hazardous waste collection, storage and disposal. The US has reduced its mercury use significantly since 1980 due to national and regional partnership programs, state mercury laws and regulations, technological advances, and voluntary reductions by industry to reduce mercury consumption.

The US EPA will focus further mercury use reduction efforts in the field of mercury switches, relays and measuring devices. There will also be work on reduction of mercury in schools, promotion of the purchase of non-mercury and non-toxic products through the Green Suppliers Network and Suppliers Partnership for the Environment www.greensuppliers.gov, and the use of tools and resources such as the Environmentally Preferable Purchasing Database at <http://yosemite1.epa.gov/oppt/eppstand2.nsf>, and the Electronic Product Environmental Assessment Tool at www.epeat.net.

The EPA is working to promote industry partnerships to reduce use as well as raise awareness of mercury in products. See EPA’s mercury website at www.epa.gov/mercury. There is ongoing work with North American and international groups. Please see attached presentation “Wright2.ppt”.

State Mercury Reductions in the USA - *Maria Peeler, Washington Department of Ecology*

The primary motivation for mercury reductions at the State level are human health concerns, specifically regarding fish consumption. The economic costs associated with methyl mercury induced toxicity, in terms of lost productivity, is estimated to be \$8.7 billion US dollars annually. Some states coordinate their product initiatives through the Interstate Mercury Education and Reduction Clearinghouse (IMERC), which is developed, used and supported by a number of US state governments. The State Health Facts website can be found at www.statehealthfacts.kff.org. The Environmental Council of the States (ECOS) is the national non-profit, non-partisan association of state and territorial environmental agency leaders. The purpose of ECOS is to improve the capability of state environmental agencies and their leaders to protect and improve human health and the environment of the United States of America. The Quicksilver Caucus under ECOS is the organization responsible for mercury management.

Individual state actions to reduce mercury use include work in the dental sectors such as the installation of amalgam separators, hospital mercury reductions, a ban of mercury in auto switches, and the removal of mercury from schools. Various states also work on promoting labeling of mercury on fluorescent lamps, requiring notification of Hg in products, and banning novelty items containing Hg. Several states are tracking mercury releases from industry and in different environmental conditions. The states are learning to increase data collection and analysis and use information from human monitoring from the Center for Disease Control. Please see presentation “Peeler1.ppt” and <http://www.ecy.wa.gov/mercury/>, <http://www.doh.wa.gov/ehp/mercury/>.

Mercury Management in Canada - *Grace Howland, Environment Canada*

Ms. Howland outlined mercury management practices in Canada and noted that Canada is a net receiver of atmospheric mercury. The Canadian Environmental Protection Act houses regulations for mercury emissions from mercury cell chlor-alkali plants; transboundary movements of hazardous wastes; environmental emergencies planning requirements and National Pollutant Release Inventory reporting criteria. Other acts in Canada that regulate aspects of mercury include the Fisheries Act and the Transportation of Dangerous Goods Act.

Mercury “Canada Wide Standards” have been developed by the Canadian Council of Ministers of the Environment. These standards are implemented at the individual federal, provincial and territorial jurisdictional levels. For mercury, there are standards in place for base metal smelters, incinerators, mercury containing lamps and dental amalgam waste and are approved in principle for coal fired power plants. Canada also participates in North American, regional and global mercury initiatives such as the CEC’s North American Regional Action Plan (NARAP) on Mercury, the Great Lakes Binational Toxics Strategy, the UNECE LRTAP Heavy Metals protocol and the UNEP global mercury programme. Please see presentation attached “Howland.ppt” and www.eg.gc.ca/mercury.

Question: An ENGO inquired as to the impact of the Restriction of Hazardous Substances (RoHS) Directive of the European Union on industry.

Response: The RoHS Directive restricts the use of lead, mercury, cadmium, hexavalent chromium, PBB and PDBE in electrical and electronic equipment. In order to comply with the EU’s RoHS legislation, all of these substances must either be removed or reduced to permitted concentrations, in any products containing electrical or electronic components that will be sold within the European Union. The categories of products come from the Waste Electrical and Electronics Equipment (WEEE) directive, the companion directive to RoHS. More information can be found at: <http://www.rohsdirective.com/>.

Mexican Mercury Reduction Programs - *Alfonso Flores, SEMARNAT*

Sr. Flores outlined the ongoing actions in Mexico regarding mercury in products, most of which are based on the actions that are listed under the North American Regional Action Plan (NARAP) on Mercury. Regulatory frameworks have been developed in Mexico in order to comply with the actions in the NARAP.

Mexico has recently authorized companies to recycle mercury waste such as mercury lamps. There is the AMEXPILAS-SEMARNAT agreement which is the basis for promoting the comprehensive and sound management of batteries. There was a previous pilot project to recover mercury waste in dental amalgams (2000-2001) which may be expanded upon. Please see attached presentation "Flores.ppt".

Question: An industry representative asked what is done with the activated carbon filters used to recover the mercury during the recycling of mercury from fluorescent lamps in Mexico.

Response: The activated carbon is brought to a disposal site since there is no incentive for recycling of mercury from the carbon filters at this time.

Question: The representative from Chile asked how Mexico deals with sites contaminated with heavy metals. Chile is developing a report to look at responsibility issues.

Response: In Mexico, beginning in 2004 with the implementation of the General Waste Law regarding contaminated sites, it is the company that is responsible for remediation of the land or they will pay for the remediation to be undertaken by a third party. A primary legal framework is first required, and a standard needs to be developed to ensure the remediation meets certain criteria. A national program is needed for remediation.

Comment: Maria Peeler noted that the Washington State Department of Ecology recently passed a law that requires all industries in a certain industrial area to pay a "tax" that will be applied to contaminated sites related to their own industry.

Question: The representative from Peru asked what other methods are used to promote reduction of use of mercury in artisanal mining in other countries, and what the successes of these alternatives are.

Response: Several attendees noted that miners are reluctant to use chemical technologies. UNIDO has applied the use of inexpensive glass retorts. Juan Caicedo mentioned pilot projects in Suriname and the proceedings of the regional mercury awareness raising workshops that cover this topic. A recommendation of the workshop was to ensure that mining facilities keep funds aside to remediate the mine upon closure. In the case where the mining company goes bankrupt, the country may be required to pay for remediation. Further information on the UNIDO mercury project can be found at http://www.unites.uqam.ca/gmf/intranet/gmp/index_gmp.htm.

Assessing & Reducing Mercury Use in Health Care Facilities

US Hospitals for a Healthy Environment Program - *Maria Peeler, Washington Department of Ecology*

An extensive list of mercury in clinical devices and other products in facilities can be found at www.h2e-online.org/. The Hospitals for a Healthy Environment (H2E) model promotes replacement of products with mercury-free alternatives and proper disposal of mercury containing products. The H2E website lists a mercury-free purchasing policy as well as a sample list of

alternatives. The website lists an assessment worksheet for developing an inventory of products to be tagged for replacement.

H2E provides a 10 step guide for fluorescent lamp recycling, as well as a “Health Care Without Harm” guide for recycling batteries. H2E has developed a program based on marketing, education and creating capacity within hospitals. Please see attached presentation “Peeler2.ppt”.

Washington State Department of Ecology Hospital Project – *Maria Peeler, Washington Department of Ecology*

Washington State negotiated a memorandum of understanding with approximately 100 medical facilities. The Washington State Department of Ecology Hospital Project, through H2E, produced a guide on best management practices in hospitals, with a breakdown of specific departments in the hospitals. The project includes workshops, hospital technical assistance visits, sponsoring of a medical industries network and development of a website. Please see: http://www.ecy.wa.gov/mercury/hospitals/hospital_mou.html.

Participants of this meeting were provided with the “Best Management Practices” guide on compact disk for their referral and use. Currently no Spanish translation exists. Please see attached presentation “Peeler3.ppt”.

Mercury Reduction Activities in Health Care Facilities - *Robert Krauel, Environment Canada*

This work concentrates in the Ontario Region of Canada and is based on the US/Canada Great Lakes Binational Toxics Strategy. Initially a survey of sources of mercury and categorization of these sources was undertaken (1995) to inform the development of a pilot project. A partnership was formed between a number of hospitals, the federal and provincial governments and one ENGO, Pollution Probe. It was noted that early on in the project, Canada did not have a retort facility, and wastes were collected and exported to the US. A cost analysis of alternatives to mercury containing products proved that alternatives were more cost effective. Hospitals also saved money by better management of wastes.

In 1996 the program was expanded into other hospitals. The Ontario Hospitals Association became involved, developed a Green Health Care Guide, provided annual awards and held exhibits. A centralized repository of information has been developed, as well as development of a communications network for the hospitals. Please see attached presentation “Krauel1.ppt”. The online environmental information web site can be found at www.c2p2online.com. The Binational Toxics Strategy website can be found at www.epa.gov/region5/air/mercury/binational.html.

International Healthcare Projects

Strategies to Address Mercury in Healthcare, *Josh Karliner, Health Care Without Harm*

Health Care Without Harm is a compilation of 443 organizations in 52 countries. The Spanish language website is www.saludsindanio.org, the English site is at www.noharm.org. The Health Care Without Harm project on Mercury Free Health Care works to phase out mercury from the health care sector globally, to replace products with cost effective alternatives, and to contribute to the broader elimination of mercury.

Health Care Without Harm is working to promote mercury reductions in the Southern Hemisphere. There is a lack of funds to implement the same programs that have been implemented in the US. The strategy being developed is based on demonstration of mercury free medicine in seven countries: Argentina, the Philippines, Vietnam, India, Senegal, Lebanon and Latvia. In Latin America, it is proposed that medical communities are not aware of the full scope of the problem although awareness is growing. A pilot project from Buenos Aires is being transferred to other hospitals in the region. There is also a project in Argentina to replace mercury containing thermometers in a children's hospital.

Four mercury conferences are being held on eliminating mercury in the health care sector. The initial conference was held in the Philippines and resulted in the development of a cost effective mercury spill kit that can be used by any nurse in the hospital, among other things. The next conference will be held in Buenos Aires on August 3-4, 2006. Please see attached presentation "Karlner.ppt".

Mercury Reductions in the Dental Sector - *Philip Watson, Faculty of Dentistry, University of Toronto*

The Royal College of Dental Surgeons of Ontario, Canada developed a study to obtain scientific data on the quantity of mercury discharged from dental offices that enters the waste water stream. The study considered 200 restorations removed and the waste water collected. Results indicated that a simple chair side trap removed only 32% of the solid waste; the pump solids separator removed 9%, while 59% of the solids went into the waste water.

With the use of an ISO 11140 certified high efficiency dental amalgam separator, waste water concentrations of 31.15 mg mercury/L, with the separator, were reduced to 0.18 mg mercury/L. Another study in the US indicated that a high efficiency dental amalgam separator can remove up to 98% of mercury amalgam particles. It has been estimated approximately 2,700 Kg of mercury were recovered from almost 5000 Kg of amalgams removed. For more information on the publications regarding the above information, please see the attached presentation "Watson1.ppt".

Question: The representative from Honduras asked how countries can join Health Care Without Harm and where one can acquire the kit to clean up mercury.

Response: To work with Health Care Without Harm it is important to contact the partners in your country. The upcoming conference in Buenos Aires will help develop new materials in Spanish, including the kit for cleaning up spills. The website is not yet in Spanish, but the information will be translated.

Question: A representative from the Mexican National Program on Oral Health of the Health Secretary asked if Health Care Without Harm works with dentists and how can elemental mercury be disposed of.

Response: Work is just beginning in Europe, where dentists are participating in conferences. It was recommended that mercury containing wastes be kept in a container with a lid and the products be submerged in water. Free elemental mercury needs to be kept at low temperatures in a sealed container.

Question: The representative from the Mexican National Program on Oral Health of the Health Secretary asked how to obtain a best practices management guide.

Response: Environment Canada has a guide that is available, and it was recommended to contact Robert Krauel at Environment Canada. It was noted that Mexico is developing a norm for amalgam wastes and could add best practices to this norm.

Question: A representative from Mexico asked about the role of the government to promote the infrastructure for recycling devices with mercury.

Response: Canada responded that the government worked to expand regulations for collection of hazardous waste to include products containing mercury. Meetings were held with waste carriers, and one carrier realized this was a business opportunity regarding development of a retort facility.

Question: A participant asked if European countries are exporting stored mercury containing products.

Response: There are stories of donations of the mercury containing products to other countries, such as the donation of mercury thermometers to countries that do not have thermometers. Health Care Without Harm is trying to promote transfer of products without mercury. Work to develop methods for long term storage of the mercury is ongoing.

Other Participating Country Mercury Reduction Programs

Overview of Mercury Management in Honduras - Alex Edgardo Padilla Padilla

There are approximately twenty seven legal instruments directly or indirectly related to the regulation of solid and hazardous waste management in Honduras. A national policy for comprehensive management does not exist. There is a prevalence of General Laws and Regulations with deficiencies and technical gaps for the solid and hazardous waste sector as there are limited specific regulations and a lack of national standards management.

Mercury sources include mining, the cement industry, thermal plants (energy production), health facilities, medicinal products to clean wounds and kill fungi, and medical waste incinerators and burners (which are not widely used). There is only one private controlled landfill site operating in Honduras and no companies to treat hazardous waste. Some hospitals have incinerators. There are few properly operated sanitary landfills in the country and the majority are open air waste dumps, where waste is burned. There are no official statistics on the amount of solid waste generated in the country. There is limited knowledge regarding environmental hazards and health risks from these wastes. Often, common domestic waste is mixed with hazardous waste. *Web page:* www.cescco.gob.hn. Please see attached presentation "Padilla.ppt".

Use of Mercury in Nicaragua – Lesbia Aguilar Gonzalez

Nicaragua does not currently have an inventory of equipment, industrial products, laboratories, dental clinics, hospitals, research centers, universities or other areas where mercury is present. Work is being carried out with the small mining industry and a diagnostic study was carried out in 2000 with the Nicaragua-Finland Environmental Program. In 2004 a diagnostic study of the small mining economic activity was carried out as well as an analysis of pollution caused by seven cooperatives.

From a pesticide inventory carried out in 1994-1995, organo-mercury fungicide waste was found in the form of methyl ethyl mercury acetate commercially known as PANOGEN M-20 in warehouses in Chinandega.

Miners have been trained but have not been able to manage mercury related issues due to the lack of economic resources. Hospital wastes are not controlled and they are deposited in municipal

dumps. The plastic recycling industry manufactures plastic straws, bags and shovels, potentially using mercury based paints to give the corresponding color. An inventory of 5 hospitals in Managua revealed that they use around 5000 batteries annually, which are disposed in regular dumps. The country's challenge is to make an accurate review of the amount of batteries that are imported annually. Please see attached presentation "Gonzales.ppt".

Argentina - Carlos Martinez

The Ministry of the Environment and Sustainable Development is responsible for the management of all wastes. No batteries or lamps are being manufactured in Argentina. There are regulations to limit the import of batteries. There is a ban of mercury in pesticides. Hazardous waste incinerators have limits on the amount of mercury they can release. There is only one plant that is regulated to receive mercury containing wastes. Wastes generated in the home are dumped in landfill or an open air dump. Argentina is working towards development of a mercury plan. Please see attached presentation "Martinez.ppt".

Trinidad and Tobago – Cheryl Ramsuberik Ramsubeik

In Trinidad and Tobago there are no inventories on mercury-containing products. Data collection is proving difficult. They are working towards a hazardous waste inventory. Mercury reduction programs exist for fluorescent lamps and for paint. Mercury is not thought to be used on their large industrial facility, although more recent data is needed. Mercury levels in wastewater from the petroleum industry were found to be very low, but effects of even this low level of mercury in the water are unknown. There are landfill sites with exposure to individuals gathering recyclable materials.

Trinidad and Tobago will develop a national inventory to inform policies on mercury reductions. A hospital program is needed. An update on the hazardous waste inventory and computerization of the inventory is needed. Occupational health and safety legislation was recently passed for the handling of hazardous wastes. The Ministries of Health, Labor and the Environment will work together to develop outreach and communications. There are no current mercury reduction programs in the dental sector.

Panama – Ileana Taylor

In Panama, the major electricity producers have been collecting all mercury containing lamps since 1996, but there is no recycling. There is no inventory of mercury-containing products. Laws for incineration of hospital wastes are being developed. Panama is working to formulate policies for disposal of wastes including hazardous wastes, and promoting clean air practices in hospitals to replace products containing hazardous substances. There is a need to strengthen analytical capacity and to make a national plan for just this topic. There is a need to make an inventory of mercury containing products. Pesticides with mercury are banned. The dental sector needs to be informed of risks. Communication between the Ministries of Health and Environment need to be strengthened for coordination of implementation.

Question: The countries were asked if they had found any available alternatives for products in the health care sector in their countries.

Responses: Panama noted they have an aggressive plan for clean air programs in hospitals and this has a financial component. They have given hospitals the option of having independence on how to handle their money for mercury reduction while actions in the public sector are slower.

Nicaragua noted there is no financing to look for alternatives in the health care sector. The Ministry of the Environment is making an inventory of products, whereas previous work has focused on POPs and other chemicals due to a legacy of import of toxic pesticides from other countries.

The situation in Honduras is that hospitals need to solicit bids to purchase equipment and consequently the Government usually approves purchase of the least expensive products. Substitution of mercury products will depend upon education of the public and development of a cost benefit comparison for replacement.

Perú - Milagros del Pilar Verástegui Salazar

In Peru, CONAM is the national environmental authority. In 2002, more than 25 institutions from the public and private sector, guilds, academic, and NGOs worked as a Technical Group to undertake the development of a list of chemical substances, as laid out by a CONAM Presidential Resolution. In 2005, this list was expanded to consider the transport of hazardous materials. In 2006, CONAM is considering development of proposed Dangerous Residues Regulations, as well as a National Strategy for the management of chemical substances, including mercury. A sub committee in the framework of the Technical Group will collect information about mercury and develop a proposal for an inventory. Currently there is no specific plan for the management of mercury in Peru. There is one mercury monitoring project underway at two locations in Peru and there exists legislation for regulating artisanal miners. Peru is developing the two first phases of its registration of emission and transfer of contaminants RECT. Peru recently updated the profile of chemical substances with emphasis on the framework for implementation of the Stockholm Convention.

Jamaica – Mitko Voutchkov

Jamaica is working to improve local analytical capability for mercury in environmental (soil) and fish samples to develop a map of mercury distribution in Jamaica and look at background levels. There was a pilot study of mercury in fish from the market, in collaboration with the medical community. There are currently no mercury related actions in the dental sector in Jamaica. The national university in Jamaica has initiated the development of an inventory for import of hazardous wastes. The bauxite industry in Jamaica does implement mercury scrubbing from its stacks and produces approximately .5 metric ton for sale annually.

Guyana – Khalid Alladin

In Guyana the main economic activities are agriculture, mining, bauxite and gold production. One priority is to reduce mercury emissions from the mining sector. Studies have been undertaken to understand the extent of the problem. Processing of gold is a sizable industry in Guyana, and the mercury recovered is done on a small scale in residential areas. Current measures include legislation to control mercury use in the mining sector, training for miners and public education. Guyana is looking at recovery of gold using cyanide leaching as an alternative method.

There are no programs on mercury in products and the use of mercury in manufacturing is not currently a problem as the country does not produce products containing mercury. Guyana does import mercury containing products including hospital equipment and electrical appliances. There are no programs in the dental sector. Guyana is hoping to work with the Pan American Health Organization to develop a mercury strategy that addresses mercury in products, rather than just issues related to mining. Challenges include a lack of infrastructure, limited capacity to analyze, limited funding and limited disposal facilities. The hospitals in Guyana all have incinerators. Most hazardous wastes end up in dump sites that are not properly managed. There is a lack of public

awareness. Communication between the Ministries that deal with health, environment, agriculture and mining need to be fortified to best address mercury issues.

Guatemala - Ruth Eglantina Portillo Jiménez

It was noted that in Guatemala, large scale mining companies use cyanide in their processes whereas small scale artisanal mining uses mercury with no controls. There is no manufacturing of mercury containing products in Guatemala. The tax collection agency list imports of products but there is no inventory per se. There are no laws for hazardous waste management but there are regulations in the hospital sector. There are no specific management plans for mercury. Mercury containing products end up in an open air dump with no controls. Universities use mercury in research laboratories with controlled management. Financing is needed for development of an inventory for products and for hazardous waste, as well as the development of a management plan for storage and disposal of mercury wastes. Recent tests of municipal water reveal high mercury levels. There will be the development of a new agency within the government to address these issues.

Chile - Lilian Veas

In Chile, an Advisory Committee composed of public services is developing a plan to address chemicals, and this plan will consider mercury. There is no specific plan that addresses only mercury. Chile has formulated and approved regulations for hazardous waste management including regulations for incineration through the Ministry of Health. The main use of mercury in Chile is associated with mining. The Ministry of Mining is holding workshops for sustainable mining. In Chile, the main challenges include finishing a national policy for chemicals, undertaking an inventory of mercury containing products, and increasing capacity in laboratories. Currently, hazardous wastes are exported from the country, but Chile is looking to develop a landfill site.

Costa Rica – María Guzmán

Costa Rica does not currently have an inventory of sources, nor an action plan for management of chemicals. There is limited capacity for waste management and no landfills for hazardous wastes. Costa Rica has created a Coordination Committee for chemical waste management with inclusion of NGOs, public and private sector. Costa Rica has a registry of cosmetics and medication but this is not explicit about which products contain mercury. There is a norm for mercury in water and drinking water. The Ministry of Social Security promotes the policy to substitute non-mercury alternative products. Costa Rica does have some resources to phase out products this year. There are concerns about disposal of the collected products once the program is complete. In Costa Rica there are two companies that produce fluorescent lighting, and the companies do collect and treat the lamps to recover the mercury.

Ecuador – Paulina Villamar

The legal framework to consider mercury includes the Ministry of Energy and Mines, the Ministry of Health, and the Ministry of the Environment. Regulations exist on the allowable levels of mercury in several environmental compartments. The Ministry of Mining concentrates on the use of mercury in artisanal mining. The Ministry of Health has programs to eliminate toxic substances in the environment. There is some information regarding the quantity of imported batteries to Ecuador. Research has resulted in the development of a management program. Small scale mining is a significant activity mostly located in the south of the country and produces incredible pollution. Thirty percent of the population is involved in mining. Currently there are no ongoing efforts towards mercury in products or in the hospital sector. Specific hazardous wastes in hospitals are managed. Please see attached presentation “Villamar.ppt”.

Brazil - Silvia Regina Alvarez Guedes

The Ministry of the Environment of Brazil is working with the Amazon Basin Conservation Initiative (ABCI). This regional cooperative initiative is looking at pollution in the Amazon jungle, specifically related to mining. This treaty requires the participation of all of the countries involved in the project to identify the contribution of each country to pollution levels. The treaty will work to apply new technologies to help address pollution problems in the basin.

Brazil will need to develop an inventory and action plan for products containing mercury. A work group has been formed, and the group of six countries will consider the replacement and disposal of all mercury containing products. Brazil is currently looking for information on technological improvements that are available and how to disseminate this information to artisanal miners in the country.

Comment: Brazil was referred to the work being done by UNIDO on the artisanal gold mining initiative, http://www.unites.uqam.ca/gmf/intranet/gmp/index_gmp.htm.

Industry Mercury Reduction Programs & Discussion

Mercury Reductions in the Electrical product Industry - Mark Kohorst, NEMA

Mr. Kohorst presented the following information from the National Electrical Manufacturers Association (NEMA). Industry consumption of mercury has fallen from 2000 metric tons in 1980 to 200 metric tons in 2001. Battery manufacturers are the largest contributors to the decreases as they currently only produce button cell batteries containing mercury. Using this meeting as the forum, NEMA is announcing to commit to removing all mercury in button cell batteries by 2011. It is noted that Energizer has a mercury-free button cell battery on the market in Europe, but there are still performance issues.

The EPA Energy Star Program supports using compact florescent bulbs to decrease the amount of pollution caused by the extra energy needed to power incandescent bulbs. Please see www.lamprecycle.org and www.almr.org for information on US and State lamp recycling. NEMA has formed the Thermostat Recycling Corporation for recycling of mercury thermostats in the US. The cooperation has collected 421,000 thermostats and 3816 lbs of mercury. Please see attached presentation "Kohorst.ppt".

Question: An ENGO representative asked if stacked button cell batteries will also become mercury free.

Response: All batteries to be manufactured in the US will be mercury free after 2011.

Question: A representative from Mexico asked if the cost of recycling is included in the price of lamps.

Response: As the recycling industry is separate from the manufacturing industry for fluorescent bulbs, the cost is not incorporated into the price of the lamp because the manufactures do not pay for recycling. The industries that use the products pay for recycling.

Question: A representative from the US asked if NEMA was interested in a program of extended product stewardship for all manufactured products, and how best to help industry realize the importance to the world market of minimizing the amount of hazardous wastes in all products.

Response: Industry is promoting nation wide recycling. Manufacturers do know they can make a profit and are working towards develop these technologies.

Comment: An ENGO representative noted that recycling of lamps is most effective when there is corresponding legislation. In States with strict laws, large distributors of lamps are now delivering new lamps and recycling the old ones, and the cost is built into the price of the product. Recyclers then come to the distributor to collect the lamps.

Mercury Recycling Project - *Alejandro Merin, Química Wimer*

Sr. Merin stressed the impact of the lack of regulations or laws in Mexico mandating hazardous waste generators (in this case: fluorescent lamps, button batteries, manometers, thermometers, etc.) to dispose of mercury containing products in an environmentally sound manner. It was noted that extraction and retorting of mercury from product sources can be less costly than primary mining. The cost of buying machines to retort the Hg is prohibitive and obtaining recycling authorization is complicated.

A proposal is needed to identify a recycling project that is environmentally sustainable, more economic than existing methods and identifies interested collection companies and industries, as well as corporate buildings, hospitals, condominiums, etc. who are willing to participate, and the project must have the support of environmental and ecology authorities. Please see attached presentation “Merin.doc”.

Session 4: Addressing the Problem; Inventories, Databases and Waste Management

Developing Mercury Product/Use Inventories - *Ned Brooks, Minnesota Pollution Control*

A mercury inventory is helpful to list products and quantify if possible, the amount of mercury stored in products in a country. In order to start preparing an inventory it is important to look at previous work that has been done in the same area. In countries with bans it is important to look at obsolete stocks of such products as fungicides, paints, etc. UNEP has developed a toolkit to estimate the amount of mercury in products and emissions due to these sources. These estimates will allow further work to be done in the area and may elicit a response from industry. For more information on the toolkit please see: <http://www.chem.unep.ch/mercury/Toolkit/default.htm>. Please see attached presentation “Brooks2.ppt”.

Developing Mercury Product/Use Inventories - *Linda Barr, US EPA*

In 1998, US EPA’s Office of Solid Waste (OSW) conducted a Mercury Pollution Prevention Initiative between federal and state agencies and three Indiana steel mills. The results indicated that 3700 pounds of mercury were collected. This led to the creation of the National Partnership for Environmental Priorities (NPEP) Mercury Challenge. Please see: <http://www.epa.gov/epaoswer/hazwaste/minimize/mercchall.htm>.

Bowling Green State University (BGSU) has developed small industrial and municipal collection programs for mercury-containing materials, which are shipped to mercury recyclers. BGSU serves eight states, and since its January 1998 inception, has collected over 12,000 pounds of mercury. The

EPA will expand the BGSU model nationwide in 2006. Please see attached presentation "Barr1.ppt".

Mercury Reduction Resources & Initiatives - Terri Goldberg, NEWMOA

The Interstate Mercury Education & Reduction Clearinghouse (IMERC) provides ongoing technical and programmatic assistance to the States that have enacted mercury reduction legislation. It is a single point of contact for industry and the public for information on mercury-added products and member States' mercury education and reduction programs. The States pay dues to belong to the organization and there is supplemental funding. Most of the programs are mandatory, not voluntary.

The Mercury-added Products Database contains data submitted by manufacturers to comply with State reporting requirements on mercury content of products. It is a single clearinghouse for submitting, reviewing, and managing forms and is available in an online searchable database. The data can be used as a basis for the development of statutes and regulation for mercury-added products to target products for labeling, collection/recycling, and phase-out, for consumer education and for understanding trends. There is some limitation to the data as there may not yet be full compliance with reporting for all manufacturers of products. Please see the attached presentation "Goldberg.ppt".

More information on State requirements, labeling of products, product bans and phase out can be found at: www.newmoa.org/prevention/mercury/imerc/cfm.

Access to the Mercury Added Products Database can be found through:

<http://www.newmoa.org/prevention/mercury/imerc/notification/>.

Summaries of State Mercury Reduction Legislation can be found at:

<http://www.newmoa.org/prevention/mercury/modelleg.cfm>.

Information on Mercury Reduction Projects Database can be found at:

<http://www.newmoa.org/prevention/mercury/programs/>.

Question: A representative from Mexico asked how to estimate total mercury from button cell batteries that are not labeled.

Response: It was noted that toys imported from Asia containing button cell batteries that are made to last only a very short period of time may not contain mercury. It was also noted that although button cell batteries are not labeled, the packaging should be labeled. Guidance on cleaning up small mercury spills can be found at: <http://www.newmoa.org/prevention/mercury/spills/>.

Mercury-Containing Products and Alternatives Database - Tim Lehman, US EPA

The US EPA is developing a pilot for a national database on mercury-containing products and alternatives. This database pilot provides details on auto switches, measurement instruments and button cell batteries. The database is a MS Windows-based application that is easily installed to desktop computer. It includes data on manufacturers (including contacts), use description, quantity of mercury, and costs from secondary sources (IMERC, industry associations, market studies, etc.). The EPA will add other product areas and improve quality of existing data, with the intent of making it available on the US EPA mercury website. Please see attached presentation "Lehman2.ppt".

Question: The representative from Guyana inquired as to what economic instruments have been employed to encourage reductions in products industries.

Response: It was noted that at the federal level no programs have been employed. A state participant noted that State programs have used grants to give incentives for replacement with mercury free products, but these projects are new and no results are in regarding efficacy.

Question: An ENGO representative asked if North America has the capacity to track the migration of mercury containing products to areas outside of the North American countries.

Response: A US State representative noted there is already evidence that mercury containing products banned in some US States are being sold to neighboring States that do not have the same restrictions. She suggested that there needs to be an international instrument for tracking these products globally. Another participant suggested that these mercury containing products need a global labeling system.

Strategies to Reduce the Release of Mercury from Products - Ned Brooks, Minn. Pollution Control

Mercury waste management objectives or considerations for developing countries may include preventing environmental releases of mercury at end of a product's useful life; removal from use of mercury items that pose risk of spill or exposure; and handling of recovered mercury. Options may include a focus of resources on reducing current uses/exposures and diverting wastes to engineered landfills but avoid burning and keep mercury out of metal scrap.

Mr. Brooks encouraged establishment of mercury recycling infrastructures such as mercury collection for wastes in defined categories that contain high concentrations of mercury, or that are most likely to pose a risk and that are produced in large quantities. He listed the main methods for treatment of mercury (wastes or surplus commodity) to be amalgamation (combine with other metals); stabilization (chemical fixation); and encapsulation (wrap in inert solid). Please see attached presentation "Brooks3.ppt".

Mercury treatment technologies: <http://www.epa.gov/epaoswer/hazwaste/mercury/index.htm>.

Mercury Storage: www.mercuryeis.com.

Policy: <http://www.newmoa.org/Newmoa/htdocs/prevention/mercury/breakingcycle/toc.cfm>.

Landfill management in developing countries: <http://publications.worldbank.org/e-commerce/>.

Mercury Product Collection, Storage, Recycling & Disposal - Linda Barr, US EPA

Ms Barr highlighted the following US programs to collect mercury containing wastes:

- **Schools Chemical Cleanout Campaign**, www.epa.gov/sc3 providing on-site technical assistance and school audits, teacher and administrator education and awareness-building, and funding for hazardous chemical disposal;
- **US EPA Environmentally Responsible Dentistry Program** a federal voluntary program to recycle and safely manage dental amalgams in the US; and
- **US Postal Service** is designing packaging to allow safe shipping of intact fluorescent bulbs as alternative to bulb crushing prior to shipment for recycling.

Please see attached presentation "Barr2.ppt".

Pollution Probe's Mercury Program - *Krista Friesen, Pollution Probe*

In 1996, five Toronto-based hospitals signed the Ontario Mercury Elimination and Reduction (MERC) Health Care Memorandum of Understanding (MOU) with Environment Canada, Ontario Ministry of the Environment, Health Care Environment Network (HCEN) and Pollution Probe. The MOU encouraged information sharing and promoted the elimination and reduction of mercury-containing products in the health care sector.

In November 1996, Pollution Probe released "Mercury in the Health Care Sector: The Cost of Alternative Products". In May 1997, Pollution Probe hosted a two-day conference "Mercury Elimination and Reduction Symposium: Toward National Partnerships". In 2000, Pollution Probe piloted the "Switch Out" program with 11 automobile recyclers in Ontario. The project has been expanded countrywide.

In June 2003, Pollution Probe produced "Mercury in the Environment: A Primer". The primer provides an overview of the presence and effects of mercury in the environment and the impacts on human health. It identifies where mercury is being used and released, and it describes what governments, businesses and individuals are doing and can do to eliminate the use of mercury and prevent its release to the environment. Pollution Probe publications and further information are available at: www.pollutionprobe.org/Publications/Mercury.htm. Please see attached presentation "Friesen.ppt".

Community Actions to Reduce Mercury – *Robert Krauel, Environment Canada*

EcoSuperior (non-profit community group) – Thunder Bay, Canada

EcoSuperior operates the following mercury related programs:

- fluorescent light recycling program for large businesses and homeowners;
- thermostat recycling program targeting local heating contractors;
- a program to collect button cell batteries with major retailers;
- thermometer take-back program; and
- household hazardous waste collections held in North Shore Lake Superior towns.

Essex-Windsor Take Back

The Detroit River Canadian Cleanup Collaborative involved over 600 residents of Windsor and surrounding areas, and over 90 kg of mercury were collected at participating Household Hazardous Waste Depots. There is the possibility to extend this project to other municipalities.

Mercury Clean Sweep - Schools

This program is ongoing during 2006. Its goal is to safely remove stores of elemental mercury as well as equipment and products containing mercury from classrooms and science labs.

Mercury Removal from Appliances

The Association of Municipal Recycling Coordinators (AMRC) Survey and Report for Environment Canada was completed in March 2000. The final cost for removal of these switches was between \$1.00 and \$2.00 Canadian dollars per switch. A manual and video have been provided to instruct on how to remove the switches from appliances.

Municipal Actions Guide

The ***Municipal Actions to Reduce Mercury Guide*** which can be found on the Environment Canada website (March 2005) was created to provide guidance on how to develop a Municipal Mercury Elimination Policy and Plan and strengthen commitments to reduce mercury releases. Please see attached presentation “Krauel2.ppt”.

Comment: It was noted that there are a larger number of older cars on the roads in tropical countries that may contain mercury switches than in the US. Currently, when old autos are crushed and melted, the emissions are the 4th largest source of mercury emissions in the US. The cost benefit analysis for removal of the switches shows that it is much less expensive to remove mercury auto switches up front-before scrapping an melting the steel from cars. A participant suggested that the US supply information packages on the US auto switch removal programs to Latin American countries for switch out programs in the small community garages.

Comment: A participant noted that there are some concerns about bulb crushing machines or barrels with active carbon filters and their efficacy for capturing mercury vapor and the risk of exposure to the workers from these machines. Some experts indicated that these units may not be as effective as originally thought.

MERCURY PROGRAMS; COUNTRY NEEDS & NEXT STEPS

Session 5: Assessing the Problem in the Americas

Questionnaire Results on Country Needs & Priorities - Luke Trip, CEC

Please see the summary of the country needs and priorities presentation attached “Trip3.ppt”.

Question: A participant asked where mercury can be found in clothing and shoes.

Response: It was noted that there were running shoes with flashing lights in them that originally were controlled by a mercury switch. This is no longer the case in North America but may be the case in other countries. It is unknown how mercury is used in clothing.

Discussion Groups on Country Needs & Priorities for Reducing Mercury Use & Releases

The group split into two groups to discuss the following points:

Did your perception of your national needs change as a consequence of this meeting?

The general response was that the perception of national needs did not change but there is now a better understanding of product issues.

Can you identify 1 or 2 priorities for your government related to mercury products?

Main priorities as listed by the breakout groups included:

- Inventory of mercury-containing products taking risk into consideration when setting priorities;
- National and regional coordination regarding waste management;
- Information on mercury alternatives;
- Managing mercury in context of other initiatives;
- Increased mercury awareness raising and outreach;
- Development of an environmental plan; and

- Building of capacity through training.

Knowing financial resources are critical, what other kind of support do you need to address priorities?

The breakout groups listed the following needs:

- Technical assistance – training of human resources;
- Capacity building of all stakeholders;
- Improved information exchange between government ministries;
- Technical – analytical and laboratory capacity; and
- Promotion of mercury outreach and communication.

Given existing conditions, what are the next steps for you to address identified priorities?

The breakout groups listed the following potential next steps:

- Build synergies with existing organizations, such as PAHO and the Amazon Basin Organization;
- Strengthen national and regional coordination with ministries and other stakeholders;
- Further clarify priorities;
- Increase regional motivation regarding waste management;
- Hold a forum to elaborate on priorities; and
- Development of an email exchange system between the countries for exchange of information.

Comments:

It was suggested that the Caribbean Community (CARICOM) Health Institute could work collaboratively with other institutions such as the CEC.

It was suggested that the CEC, UNEP or UNEP ROLAC develop a list-serve of people at this meeting and other interested individuals to circulate information and exchange information on risk assessments, etc. to countries that do not yet have the infrastructure to develop their own.

Session 6: Moving Forward to Reduce Mercury Use and Releases

International Funding Mechanisms & Resources - Luke Trip on behalf of Ellen Tynan, World Bank

In order to access funding, governments or group of governments need to submit proposals to the World Bank (WB). It is important to note that the WB's goals are to reduce poverty and increase growth with a tangible impact on the quality of life and these goals should be incorporated into proposals.

The World Bank and International Finance Corporation (IFC) have investments in several related sectors, including energy, mining, agriculture and health. Projects include:

- Pollution Prevention Handbook providing recommendations on Chlor-alkali Plants
- Coal-fired plants with no general requirements at this time – still not standard practice in developed countries
- Health Care - working to encourage reduction of mercury-containing equipment in client countries

- Bank-supported Mercury Pollution Clean-up Projects that are posing immediate threats to public health & security of water systems
 - Baku, Azerbaijan
 - Nura River, Kazakhstan
 - China (1 or more projects)

Upcoming chemicals issues for the WB include endocrine disruptors, metals, and consumer society driving the waste issue such as recycling of electronics.

Comment: There is an ongoing Global Environment Facility (GEF) project to eliminate dioxins under the Stockholm Convention, but since mercury is not under Stockholm, it was suggested that mercury work can qualify for funding under the category of international waters as the mercury affects the fish and fish consumption in these waters.

International Funding Sources & Resources - *Juan F. Caicedo (UNEP Chemicals) and Marco A. Pinzon (UNEP ROLAC)*

Mr. Pinzon updated the group on the current mechanisms for mercury related work, listed the UN Specialized agencies that work on mercury related issues, and listed technical assistance sources.

Financial Assistance sources can be found:

- Nationally – financing and co-financing/ in-kind resources
- Regionally – regional development banks/ regional agreements
- Globally - Bilateral donors, Global Environment Facility (GEF), International Waters OP-10 (Contaminants), Intergovernmental organizations (UN, World Bank), Basel Convention, Technical cooperation trust fund, Strategic Approach to International Chemicals Management (SAICM)

Mr. Caicedo noted that the UNEP Mercury Program facilitates national action through mobilization of technical and financial resources. Technical help includes the toolkit for quantification emissions of mercury – soon to be launched. There are two categories related to products in this tool kit. The guide document of the tool kit contains an excel spreadsheet where upon entering of data, air emissions will be calculated.

Financial resources include funding for pilot partnerships (up to \$50,000 USD) and setting out a possible mechanism for mercury-related activities (similar to the “POPs club”). These “clubs” are setting out qualifications for funding.

Mr. Caicedo outlined SAICM (non-legally binding document) and noted that the Dubai Declaration was recently approved. SAICM includes an overarching policy strategy of relevance to mercury under other chemicals of global concern and establishment of a Quick Start Program. For the Quick Start Program, an Executive Committee will develop terms of reference and an operational guide in May of 2006. The guide will contain eligibility rules and allocation limits of \$50,000 - \$250,000 from a total of \$9 million USD. Funds will be managed by UNEP Chemicals. More information can be found at www.chem.unep.ch/saicm/. The guidance document will be posted on the website.

Some general activities and infrastructures being funded under other chemicals-related initiatives may assist on mercury including:

- Stockholm Convention National Implementation Plans (NIPs)
- Pollutant release and transfer registers (PRTRs)

- Cleaner production centers
- Basel Convention Regional Centers

Currently technical and financial resources to help countries deal with mercury are limited. It is recommended to utilize relationships towards areas where funds are available to deal with/ join similar problems. There is a growing interest in the donor and policy community and interest will increase with further political attention. To engage in the political debate and develop proposals for funding and assistance, countries should first get general exposure and risk information. Please see attached presentation "Pinzon.ppt".

Question: An industry representative asked if there were funds available for associations or for private companies that are developing technologies for recycling.

Response: The financial support is usually applicable to governments, but the funds are open to national priorities. The guidance document will be published in May 2006. It would be best to verify the internet site for the final published document. As a matter of precedence, it was noted that the private sector has worked previously through the Montreal protocol with financing of technologies so that minimum standards could be met.

Question: The representative from Peru asked about the mechanism for submittal of project proposals for the funds for development of a mercury inventory.

Response: It was suggested that Countries elaborate the project to include more than just inventory development. Again the criteria for eligibility are not fully developed. There are other funds available through UNEP for development of inventories and training countries on how to use the toolkit.

Closing Remarks

Sr. Flores thanked the participants, UNEP, UNEP ROLAC, the US and the CEC for their efforts. He stressed the importance of developing partnerships for projects through UNEP, updating inventories to identify priorities, and taking advantage of experience gained through the CEC. He encouraged the participating countries to assess their priorities and reminded them that efforts are being made to assist developing countries at the global level.

Sr. Caicedo thanked the participants and the organizers of the meeting and noted that UNEP will continue to focus its efforts on metals including mercury, lead and cadmium. Associations will continue their course and partnerships will develop to facilitate the path forward for countries in need.

Ms. Wright thanked the participants, UNEP, UNEP ROLAC and the CEC and encouraged countries to move forward based on lessons learned at this meeting and formation of regional partnerships to identify country needs and next steps for reducing mercury use.

Mr. Trip thanked the US, Canada, and Mexico, UNEP, UNEP ROLAC and all of the participants and speakers for their efforts. He stressed the importance of educating those who can support this type of work; that this is a priority, and plans will be needed to move forward.

Mr. Trip closed the meeting.