

# Inception Workshop

## For

# Mercury Storage and Disposal Project in the Caribbean:

# Jamaica, Suriname and Trinidad and Tobago



12<sup>TH</sup> TO 13<sup>TH</sup> AUGUST 2015

THE TRINIDAD HILTON AND CONFERENCE CENTRE, PORT-OF-SPAIN, TRINIDAD AND TOBAGO.

## BACKGROUND

The Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region (BCRC-Caribbean) in collaboration with the Chemicals Branch of the United Nations Environment Programme's Division of Technology, Industry and Economics (UNEP/DTIE) have received funding from the Norway Official Development Assistance (ODA) for the project "Mercury Storage and Disposal Project in the Caribbean: Jamaica, Trinidad and Tobago and Suriname". The project seeks to identify environmentally sound storage and disposal solutions for mercury, as recognized by the international community as a priority. Mercury supply is exceeding demand in many parts of the world as a result of the movement towards use of mercury free alternatives. This surplus must be managed and stored properly, thereby preventing its re-entry into the global market.

This project is a follow-up to the 2009 Norway funded project "Reducing Mercury Supply and Investigating Safe Long Term Storage Solutions", also known as "UNEP Mercury Storage Project". The project serves as a catalyst in the action towards ratification of the Minamata Convention and it is part of the continuing work to provide technical assistance to countries in search for environmentally sound storage and disposal for mercury, identified as a priority of governments. The project builds on GC 25/5 III decision that requested "UNEP Executive Director working through the Global Mercury Partnership and concurrently with the work of the Intergovernmental Negotiating Committee to develop a legally binding instrument on mercury, to continue and enhance as part of international action on mercury the existing work, including enhancing capacity for mercury storage".

The Mercury Storage and Disposal Project in the Caribbean seeks to implement within the framework of the Global Mercury Partnership, a series of activities designed to enhance capacities and promote the environmentally sound storage and disposal of surplus mercury in three selected countries (Jamaica, Suriname and Trinidad and Tobago) in the Caribbean. The objectives of the project include:

- to establish of an effective decision-making processes at a national level;
- to gain an understanding of mercury waste streams for national inventories;
- to review the regulatory framework and management options relevant for the environmentally sound management of mercury;
- to enhance countries' understanding of the mercury waste and commodity issues as these relate to surplus mercury at country level;
- to assist government to understand the key elements of a framework enabling the environmentally sound management of mercury waste, including through the development of national storage and waste management action plans;
- to support the three countries efforts towards the accession, ratification and early implementation of the Minamata Convention on Mercury; and
- to create awareness on the hazards and risks posed by mercury and mercury waste.

To initiate the project, the BCRC-Caribbean and UNEP/DTIE hosted a two day inception workshop attended by representatives of the relevant government agencies of the three countries, the CARICOM Secretariat, the BCRC-Caribbean and UNEP Chemicals Branch as well as an international consultant (Annex I). The workshop created the platform to allocate roles and responsibilities and established a detailed timeline for the implementation of the various project activities. Each country selected a representative for the overall coordination of the project and mechanisms of communication were put into place. The meeting also served as an opportunity for UNEP Chemicals Branch to present and explain the toolkit for the identification and quantification of mercury releases. The workshop was held at the Flamingo conference room, Trinidad Hilton and Conference Centre, Port-of-Spain, Trinidad and Tobago from 12<sup>th</sup> to 13<sup>th</sup> August 2015.

## **WORKSHOP PROCEEDINGS**

The inception workshop consisted of technical presentations over the two day period. The presentations were made by UNEP's Chemicals Branch representative, Dr. Desiree Montecillo Narvaez, an external consultant, Mr. Steven Hoffman as well as representatives from each of the invited countries. The presentations gave an overview of the of the Mercury Partnership and Convention, the project mandate, background, objectives and expected outputs as well as a detailed explanation on the use of the "Sourcebook on Mercury Waste Storage and Disposal" (referred to as the Source Book) which is to be used for informational purposes for the project implementation.

All presentations done at the workshop were given to participants and the final agenda for the workshop is contained in Annex II.

## **DAY 1 PROCEEDINGS**

### **Opening Session**

The participants were welcomed to the workshop by Dr. Ahmad Khan, Director of the BCRC-Caribbean. This was followed by an audio safety briefing explaining the evacuation procedure for the Hilton Hotel and Conference Centre. Dr. Khan (BCRC-Caribbean) then explained the importance of the workshop and spoke briefly on the mercury storage and disposal initiative under the Chemicals branch of UNEP. Dr. Narvaez (UNEP Chemicals) briefly discussed the context of the project, the Source Book and the use of the UNEP mercury waste inventory toolkit intended to aid countries in conducting their mercury inventories. She explained that a demonstration of the toolkit would be conducted over the next two days. Dr. Yarde (CARICOM Secretariat) then addressed the participants on the recent reduction in the rate of the ratification for multilateral agreements (MEAs) amongst the Caribbean countries. She explained that this should not be seen as the loss of interest from the CARICOM countries but that

countries are putting more focus on implementation on a national level before ratification is considered. The participants then introduced themselves.

## **Presentations**

### **Presentation 1: Overview of the Mercury Process - Context of the Project, Global Mercury Partnership, Minamata Convention (status of ratification) - Dr. Narvaez (UNEP Chemicals)**

The presentation began with an overview of the Global Mercury Partnership discussing its mandate, objectives and major partnership areas. The relationship between the Global Mercury Partnership and the Minamata Convention was explained making reference to Article 14 of the Convention. Dr. Narvaez (UNEP Chemicals) stated that Article 14 of the Minamata Convention mentioned partnership as an important means to deliver the capacity building, technical assistance and technology transfer needed by Parties to implement the new Convention, and the Global Mercury Partnership from the basis for the introduction of the Convention's text. The types of mercury inventories were mentioned as well as the tools available for the execution of these inventories. Dr. Narvaez (UNEP Chemicals) also discussed some of the latest developments within the Minamata Convention and the mechanisms needed for ratification and implementation of the Convention. The methods by which support can be provided to Governments in the implementation of the Minamata Convention were also shared. Activities such as artisanal small scale gold-mining (ASGM) and coal combustion were highlighted together with relevant projects implemented in some countries to deal with mercury waste.

#### **Questions and Comments**

- There were no questions and comments

### **Presentation 2: Mercury Projects and Initiatives in Jamaica, Suriname and Trinidad and Tobago**

#### **Jamaica - Ms. Lewis and Ms. Marston (National Environment and Planning Agency, Jamaica)**

Jamaica's presentation comprised of their proposed roadmap for mercury, and the past and current projects related to mercury reduction. The roadmap assessed the national situation for managing mercury in terms of legislative, political and institutional capacities. The country's proposed steps for implementing the Convention was also discussed.

#### **Questions and comments**

- There were no questions and comments.

#### **Suriname - Mr. John Courtar (Labour Inspectorate, Suriname)**

Suriname's presentation gave an overview of the mercury inventories conducted in country within the mining and ASGM industries, as these sectors were identified as the major generators of mercury waste. Dr. Courtar then discussed challenges faced by the Government for managing mercury waste, highlighting the lack of communication with the ASGM industries as well as the regulatory measures currently in place for dealing with mercury wastes in Suriname. Dr. Courtar (Suriname) recommended

the need for proper legislation to monitor and control hazardous waste in Suriname, plans for the identification and design of a storage facility, and he discussed achieving the status of “Green Gold” due to the environmentally sound management of mercury in the near future.

### **Questions and Comments**

- There were no questions and comments

### **Trinidad and Tobago – Ms. Tricia Beejai (Environmental Management Authority (EMA), Trinidad and Tobago)**

Trinidad and Tobago’s presentation gave an overview of the mercury projects and initiatives both past and present, as well as current activities related to mercury pollution reduction in Trinidad and Tobago. The presentation started with an overview on a national hazardous waste inventory, highlighting electrical maintenance (changing of fluorescent bulbs) as the largest generator of mercury waste in the country. Ms. Beejai (Trinidad and Tobago) discussed regulatory control measures for mercury, mercury disposal and the presence of mercury in the aquatic environment within Trinidad and Tobago. Trinidad and Tobago’s status with respect to the implementation of the Minamata Convention was also mentioned.

### **Questions and comments**

- Ms. Elias-Samlalsingh (Atlantic, Trinidad) inquired about initiatives to enforce legislations and regulations by participating countries as it pertained to mercury and mercury waste in the country. She agreed that workshops such as this one are great, but there need to be support from law enforcement in order to ensure that their benefits can be maximised.
- Ms. Elias-Samlalsingh (Atlantic, Trinidad) asked about the date of enactment for the country’s draft Waste Management Rules. She expressed her concern that some companies may not be as environmentally conscious as Atlantic to ensure that the CEC requirements are fulfilled in the management of their waste. In response Ms. Beejai (EMA, Trinidad) explained that when CECs are issued to the applicant, the EMA assigns compliance officers to monitor the conditions written in the CEC application. She assured the participants that the drafts Waste Management Rules are currently being revised but there is no scheduled date for its enactment.
- Mr. Hoffman (Consultant) emphasised the need for a document of due diligence by manufacturers to whom mercury waste is returned. He indicated that the document should contain information such as the company’s name, a description of the intended process for waste treatment or disposal and how the company intends to follow compliance rules. He stated that countries which are signatories to the Basel Convention are also required to provide further information on the export document such as storage, handling and labelling of the waste. He stated that the auditing of the export documents would be left to the discretion of Governments as they may see fit. Mr. Hoffman (Consultant) also shared some of his past experience as a former Federal Enforcement Officer at the United States Environmental Protection Agency (EPA). He stated that due to the large quantity of stocks received daily,

monitoring was conducted randomly. However, within the Caribbean, these numbers would be significantly less and as such monitoring could be performed more periodically.

- Mr. Hoffman (Consultant) highlighted the importance of insurance companies within the management framework of waste including mercury. He stated that insurance companies have a major influence on the regulations for waste management which, may or may not align with the stipulations of the country. He encouraged Governments to have discussions with large scale insurance companies to determine the type of activities they may be conducting locally.

### **Presentation 3: Project Mandate, Background, Objectives, Activities and Expected Output - Dr. Narvaez (UNEP Chemicals)**

The presentation started with an overview of the minimum and maximum expected global quantities of excess mercury by 2050. An overview of the project background for the Latin American and Caribbean (LAC) region and its mandates were then presented, inclusive of the assessment of excess mercury supply in LAC and options analysis for the safe and long term storage of excess mercury within the region. Lessons learnt as well as recommendations from previous projects on mercury storage and disposal in Uruguay, Argentina, Panama and Mexico were discussed. The objectives, institutional arrangements, activities and expected outputs for the mercury storage and disposal project for the Caribbean region were stated.

#### **Questions and Comments**

- Dr. Courtar (Suriname) inquired on the justification for Mexico's participation as part of countries chosen for this project. Dr. Narvaez (UNEP Chemicals) clarified that Mexico was classified under the grouping of Latin America and the Caribbean and added that the assessment was for the entire region including the Caribbean.
- Dr. Courtar (Suriname) then asked about the type of containers used in Argentina for mercury storage. Dr. Narvaez (UNEP Chemicals) responded that a fixed container, not a mobile one was used.

### **Presentation 4: Overview of the Practical Sourcebook on Mercury Waste, Storage and Disposal – Mr. Stephen Hoffman (Consultant)**

This presentation gave an overview of the practical sourcebook on 'Mercury Waste Storage and Disposal'. An explanation was given on the origin of the sourcebook, its purpose and format. A summary of each chapter of the sourcebook was specified which included the following:

- Chapter 1 – types and sources of mercury wastes;
- Chapter 2 – environmentally sound management of mercury wastes;
- Chapter 3 – Storage of mercury wastes;
- Chapter 4 – recovery operations for mercury wastes;
- Chapter 5 – disposal operations for mercury wastes;
- Chapter 6 – export of mercury wastes; and
- Chapter 7 – management of sites contaminated with mercury wastes.

### Questions and comments

- Mrs. Elias-Samlalsingh (Atlantic, Trinidad) sought advice on measures to be implemented and actual examples of actions taken by countries for uncontrolled landfills. Mr. Hoffman (Consultant) responded that there is a categorical ban on a whole range of mercury-bearing end of life products which are prohibited from entering landfills in the EU. In the United States however, household waste and household hazard waste such as turpentine for paint stripping and batteries can be disposed as regular household waste as they are not deemed hazardous. He stated that this has created issues in landfills with respect to leachate but the issue has been dealt with through the implementation of the municipal landfill regulations which mandated double liners and the collection of leachate in order to protect groundwater. Mr. Hoffman (Consultant) explained that the leachate is liquid hazardous waste and it is very expensive to treat. He advised that the cheapest method is the implementation of take-back systems to separate wastes before it reaches the landfill.
- Dr. Yarde (CARICOM Secretariat) suggested that one method to prevent at least certain types of wastes from reaching the landfills is to provide a refundable deposit or surcharge on the waste. Dr. Yarde (CARICOM Secretariat) shared the example of Barbados in which a similar principle was used for plastic bottles and was proven to be very successful. Mr. Hoffman (Consultant) stated that this is also done in the United States with respect to car batteries and it has been very successful, eliminating the improper disposal of batteries. He added that there is a price which will result in the change of practice in a country, and this price is dependent on national and cultural issues and may vary from one country to another, stating that the examination of the social and cultural decision making is almost more important than the environmental aspect.
- Dr. Courtar (Suriname) sought advice on the position of Suriname's government with respect to closed mercury contaminated facilities by private sector. Mr. Hoffman (Consultant) stated that the Government would be liable and advised that in such corporate relationships, Suriname should set requirements on private companies to clean up the facility to a point upon which they would be able to transfer ownership and liability of the facility to the Government. He strongly urged the Government of Suriname to do this before ownership of the facility is claimed, as under environmental law, environmental liability will automatically be transferred to the new owner. The Government should therefore have assurances that prior contamination before ownership (surface or sub-surface) will be retained by the previous owner. He then gave an example illustrating that in the United States, the seller is required to do due diligence due to the innocent land owner's clause (see USEPA CERCLA statute) before a transfer of property ownership. He stated that to be an innocent landowner, the seller of an industrial activity has to conduct a Phase 1 or Phase 2 environmental audits affirming no long-term environmental liabilities. Any subsequent environmental damage will relieve the current landowner of any liability and concluded by saying that the absence of such a system can result in trouble in the future.
- Dr. Courtar (Suriname) sought clarification on the level of cleanliness the previous owner is required to adhere to before ownership is transferred, that is, whether it would be based on the requirements of the Basel Convention or the EPA. Mr. Hoffman (Consultant) responded that

each national and international convention have their own standards with varying degrees of strictness. He stated that emphasis should therefore be placed on how the company intends to enforce the laws set on whichever standard are adopted. He added that companies have legal rights, and their obedience to particular standards will be based on legal and not necessarily voluntary guidance. Dr. Courtar (Suriname) stated that international companies can therefore enforce corporate social responsibility without it being legally binding. Mr. Hoffman (Consultant) disagreed, adding that only legally binding standards can be enforced by national governments and non-legal commitments based on corporate responsibility standards are voluntary choices.

- Mr. Hoffman (Consultant) mentioned that the Sourcebook should be used purely for informational purposes and should not be taken as a formal guidance document.

#### **Presentation 5: A Suggested Framework for Decision Making for the Safe Management of Redundant Mercury - Dr. Narvaez (UNEP Chemicals)**

Dr. Narvaez (UNEP Chemicals) began with a clarification of the definition of excess mercury. The presentation entailed an overview of the comprehensive strategy for the environmentally sound storage of disposal of mercury wastes and outlined the suggested framework for managing mercury wastes. This included conducting a mercury inventory, assessing management options for storage and disposal and enabling activities for implementation. A sample outline of a work plan was then illustrated.

#### **Questions and comments**

- There were no questions and comments

#### **Presentation 6: Specific Sources of Mercury Wastes – Mr. Stephen Hoffman (Consultant)**

This presentation discussed the specific sources of mercury and mercury wastes. Artisanal gold-mining and bauxite refining were identified as significant sources of mercury waste in the Caribbean region. Examples and references were given on ASGM, bauxite refining, mercury waste management in health care facilities and the management of mercury from fluorescent lights. Emphasis was placed on the United Nations Development Programme (UNDP)-World Health Organisation (WHO) guidance on the clean-up, storage and transport of mercury wastes from health care facilities and the WHO safe management of waste from health care.

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