

Enhancing Collaboration : Global Mercury Partnership areas on Chlor-alkali, Supply and Storage, Waste Management

A. Background:

At the UN Environment Global Mercury Partnership Advisory group (PAG) 7th meeting that took place in Jordan in March 2016, leads of the partnership areas on mercury reduction in chlor alkali, supply and storage as well as mercury waste management expressed openness and support to enhance collaboration in order to meet the Partnership goal and objectives.

Experts at the chlor alkali experts group that met in Vienna in June 2016 made recommendations in areas of chlor alkali conversion or decommissioning financing, information on regulatory frameworks, plans for managing mercury, capacity building and technology. The full meeting report is available at <http://web.unep.org/chemicalsandwaste/events/expert-group-meeting-elimination-use-mercury-chlor-alkali-chemical-processes-vienna-28-29> Participants expressed the need for information about options for interim storage, stabilization/solidification and final disposal of mercury from converted or closed chlor alkali facilities. This need could be addressed by the supply and storage and the waste management partnership areas that are making available best practices and technology options on stabilization and solidification. In addition, the World Chlorine Council has recently produced a compilation of stabilization and solidification technologies available at <http://www.worldchlorine.org/publications/unep-chlor-alkali-mercury-partnership/mercury-phase-progress-options/> A significant need by the chlor alkali sector is technical assistance for site remediation of contaminated sites which the mercury waste management partnership area may wish to address.

Mercury supply and storage experts also met in Madrid in October 2016 to exchange information on technologies for mercury storage, stabilization, solidification and disposal. Experts underscored the need for increased cooperation with other partnership areas in meeting a common goal. If feasible, the experts recommend to engage at country level projects and activities to better understand and hence address countries' gaps in trade data, weaknesses in regulatory systems, technical and financial needs. The full meeting report is available at <http://web.unep.org/chemicalsandwaste/global-mercury-partnership/mercury-supply-and-storage/meetings/events/supply-and-storage-experts>

The mercury waste management partnership area has taken the lead in informal discussions about mercury waste thresholds that could be a contribution to the INC process of the Minamata Convention. A training module on mercury waste management is also being developed. Information is being provided and both chlor alkali and supply and storage partnership areas are being engaged in the process.

B. Proposals by Partnership Areas

Each partnership area was requested to submit ideas on enhancing collaboration and synergies in order to meet the common Partnership goal and objectives. Please see Annex for submissions by partnership area.

1. Chlor alkali (CA)
2. Waste management
3. Supply and storage

C. Proposed Enhanced Areas of Collaboration

The table below consolidates ideas on collaboration among the 3 partnership areas:

Area of collaboration	Chlor alkali	Supply and Storage	Waste management
Information and knowledge sharing	Inventories of chlor alkali facilities (WCC and non-WCC members); regulatory frameworks ; trade flows of mercury from closed or converted CA plants; excess mercury that needs to be disposed	Trade flows from chlor alkali and other sectors (non-ferrous metals mining, natural gas) ; Options for interim storage, stabilization/solidification and final disposal	Progress on initiative about mercury waste threshold; options for stabilization/solidification and final disposal; good practices on waste management of mercury from CA plants depending on countries' specific needs and situation
Technological options	Best practice documents from WCC (mercury handling, decommissioning, storage and disposal)	Options for interim storage, stabilization/solidification and final disposal	Options for stabilization/solidification and final disposal; Options for remediation/decontamination. Effectiveness evaluation of the technological options (i.e., cost-effectiveness, long term stability, etc)
Regulatory measures/ Legislation	Assessment of relevant regulatory framework	Assessment of relevant regulatory framework	Assessment of relevant regulatory framework
Financing	Financing for conversion or closure of chlor alkali plants	Financing for stabilization/solidification, interim storage and disposal	Financing for stabilization/solidification , disposal, and remediation

Suggested joint action points:

1. Continue coordination among co-leads of the 3 partnership areas, establish working groups as necessary for areas of collaboration with membership coming from the 3 partnership areas.
2. Organize joint meetings/side events in the margins of the ICMGP 2017 or at Minamata COP1
3. Draft country level proposal and obtain funding (such as from the EU DG Development) to support a country level demonstration project involving the 3 partnership areas. For example, and in consideration of country priorities, the chlor alkali partnership would identify a non- WCC chlor alkali facility that needs technical and financial assistance. The supply and storage partnership could assess the supply, trade, legal/regulatory framework of the country involved. The waste partnership could then provide technical assistance on the stabilization/solidification and/or remediation of the contaminated site. Joint country level projects while addressing the needs of countries could demonstrate concrete synergies among the 3 partnership areas.

ANNEX

1. Synergy Opportunities: Chlor-alkali Partnership Area

Current Status

- We fully support the Secretariat's goals of greater and closer collaboration among several Partnership Areas, starting with Waste Management, Supply and Storage and Chlor Alkali.
- Since the inception of the year 2016 and in order to prepare the sector to the COP1, the Chlor Alkali Area refocused its work around the following tasks:
 1. Assess the amount of Mercury in use and identify the flow of Hg to and from those Hg-Chlor Alkali facilities in activity and those recently converted (both members and non-members of the World Chlorine Council);
 2. Identifying the preparedness for entry into force of industrial sectors or facilities on a country and regional basis (e.g. viability and availability of alternative technologies for the Chlor Alkali (CA) industry, financial resources needed);
 3. Identify availability of standards and legislative frameworks governing all steps related to Hg chlor alkali technologies, their replacement and disposal;
 4. From the above analysis, identifying those countries, industries and facilities that would need specific assistance to meet the expected requirements under the treaty;
 5. Disseminate examples of technologies and best practices;
 6. Developing a list of recommendations for technical assistance and resources to assist the subset identified above [to bring them up to speed] with convention goals.

Entry into Force Considerations

- Our efforts to increase collaboration and effectiveness of the overall Partnership mechanism should already consider the necessary changes that the Partnership Areas have to face after the entry into force of the Convention.
- The current structure of the Partnerships is voluntary and lacks a clear balance among regions.
- The continued role and benefits of the Partnership areas is contingent on how the Parties to decide on the need and set-up of a technical support to the Convention after entry into force. The key elements that would provide a suitable replacement for the partnership areas are:
 - Institutional Technical Support
 - Balanced representation (developed vs developing countries)

- A clear mandate by the Parties (more executing Parties' requests rather than being "proactive" as they are now).
- Failing these elements, the Partnership Areas may still be needed to ensure that there are forums for addressing sector-specific concerns.
- Alternatively, the Parties may want to consider new technical groups formed around with that technical aim to Parties, stemming on the existing Partnership Areas.

Specific Opportunities for Synergies

- Beside the independent activities that each Partnership will carry out in the next months, we suggest setting a limited set of common priorities among partners and coordinate on how to tackle them in a coordinated manner.
- The opinion of the C-A co-leaders is that there are common points are also shared by the Waste Management and Supply and Storage Partnership Areas. These include:
 - Flow of Hg for/from industrial activities (sources and users);
 - Availability and viability of technologies and financing for long term disposal of Hg (for both elemental mercury and mercury-contaminated wastes).
 - Standards and best practices in the collection, interim storage and long term disposal of Hg (for both elemental mercury and mercury-contaminated wastes).
- The coordination on how to tackle those common issues could be following some of the below:
 1. Set up specific working groups (ie, technology, best practices, financing, regulatory measures) on the identified cross-cutting elements, to set a plan of action for the coming months;
 2. Try to elaborate projects and try to influence bilateral donors (and GEF) on the necessity to urgently invest some funds to clear the above mentioned shortcomings from the respective areas; micro stabilization
 3. Consider the option to organize a joint Expert Group Meeting to cover the above issues, maybe in the margin of the ICMGP or at Minamata COP 1.
 4. Technical adviser to Minamata

These suggestions are solely the views expressed as Chlor Alkali Partnership Area leads, and do not necessarily reflect the position of their respective affiliation

2. Mercury Waste Management partnership area

Proposal	Project lead	comments
1. Gathering good practice (success stories) on decommissioning or converting of Chlor-Alkali processes	Chlor-Alkali	- As expressed in the CA partnership proposal, Waste Management area agrees that gathering information of good practices (success stories) on decommissioning or converting of CA processes would be useful. - Especially focusing on financial schemes, since fundraising is one of the biggest barriers for phasing-out mercury use in CA sector. - Also useful to consider applicability of good practices to existing CA plants, taking into account each countries' specific needs & conditions.
2. Updating mercury inventory of CA plants	Chlor-Alkali Supply & Trade	Waste Management area agrees that it is necessary to specify the remaining amount of mercury among existing CA plants¹.
3. Gathering information on available technologies on mercury stabilization/mercury waste treatment	Supply & Trade Waste Management	- List of available technologies on mercury stabilization is available on WCC website², we can still work on updating the list by gathering information from each area's partners. Other technologies (e.g. concrete solidification) could be added to the list. - Evaluating each technologies (cost effectiveness, long-term stability, etc.) - It might be useful to develop an informal expert group meeting to consider measures to treat mercury waste from CA process in an environmentally sound manner.

¹ 2010-2012 inventory is available on CA area website. It is estimated that 8,400 tons of mercury remained in 75~96 CA plants.

<http://web.unep.org/chemicalsandwaste/global-mercury-partnership/mercury-reduction-chlor-alkali-sector/reports-and-publications>

² <http://www.worldchlorine.org/publications/unep-chlor-alkali-mercury-partnership/mercury-phase-progress-options/>

3. Mercury Supply and Storage partnership area

We think that the key ideas raised during the meeting in Madrid are included in the paper; we also support in general the comments presented by our Chlor-alkali and Wastes management colleagues.

The entry into force of the Minamata Convention is very close; this is our reference and the framework that can ensure clear and transparent balance among regions.

We have quite limited time before the first COP and we feel the best we can do is to be very realistic and to proceed pragmatically.

One of the conclusions agreed during the meeting in Madrid was about the need to go to the country level to have better knowledge of their priorities and needs to try to help them to increase their capacities for the environmentally sound management of mercury, including the identification of gaps in trade/production data, weaknesses of the legal system affecting mercury management, technical and financial needs and funding options to help countries in the conversion of Chlor-alkali plants.

We have no information about the projects, in place or under preparation, financed within the Global Mercury Partnership or connected with the GMP. But....perhaps a project in which the three synergistic areas (Chlor-alkali, Supply/Storage and Waste Management) can work together and with a precise country to define priorities, to identify legal, technical and financial needs, to increase its capacities for ESM,.... could be a good example to actually show the value of these three GMP areas in practical terms.