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To: Rodges Ankrah, UNEP Global Mercury Chlor-Alkali Partnership Lead  
From: Michael Bender, Director  
Date: 13 January 2016  
Re: Comments on the UNEP Chlor-Alkali Partnership Business Plan

With mercury quantities tightening and prices rising, the potential for theft, illegal trade, and smuggling of excess mercury from closing or converting mercury cells in the chlor-alkali industry sector could increase as well. As discussed below, industry has an important responsibility to prevent this from occurring and we recommend that the revised business plan address this important issue.

A case in point is the now defunct German company, DELA GmbH, which was found in 2014 to have illegally exported<sup>1</sup> up to 1,000 tons of metallic mercury, wrongly declared as mercury waste, with an estimated value of 40 million USD. Most of the metallic mercury received was from the chlorine-alkali industry around the world, with DELA's fee for treatment and final disposal<sup>2</sup> reportedly set at €2 150/tonne. Yet very little of the mercury shipped to Germany was ever converted to cinnabar.

Instead, the illegal mercury was mostly sent to transit countries: Switzerland and, in smaller amounts, Greece and the Netherlands. From there, at least some of this illicit mercury eventually made its way on to world markets, including to Singapore, where a DELA company representative is currently trying to sell some of the illegal mercury (see attached).

DELA was reportedly able to get around the regulations to not deliver stabilized mercury for storage and disposal because no mechanism was required to track the mercury to its intended end destination. In Germany, it appears that the stabilized form of mercury is neither classified as hazardous waste or waste. In this case, the company's tracking responsibility ended with the receipt of the metallic mercury.<sup>3</sup>

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<sup>1</sup> Regulation (EC) No 1102/2008 of the European Parliament and of the Council on the banning of exports of metallic mercury and certain mercury compounds and mixtures and the safe storage of metallic mercury. Available from: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008R1102>

<sup>2</sup> DELA's technology was described at a UNEP workshop in Latin America in 2011, see: <http://www.unep.org/chemicalsandwaste/Portals/9/Mercury/Documents/supplystorage/DELA%20Stabilisation%20Technology%20for%20Metallic%20Mercury%20-%20Workshop%20May%202012.PDF>

<sup>3</sup> Soesilo, D., Illegal Mercury Trade, A Case Study, Waste Crimes – Waste Risks, Gaps in Meeting the Global Waste Challenge, UNEP, see page 33. <http://www.unep.org/delc/Portals/119/publications/rra-wastecrime.pdf>

To address this and perhaps other loopholes, industry has an important role to play to ensure that excess mercury is managed in accordance with both the spirit and intent of their government regulations as well as the Minamata Convention. This could include taking the following steps:

- monitoring and ensuring physical security of the mercury stocks;
- permanent surveillance, electronic controls, four/six/eight eye principle when moving mercury containers;
- obligatory chemical identity check when passing mercury or mercury waste from one company to another;
- public registers;
- record keeping and reporting; and
- frequent external evaluation of mercury stocks and movements.

To further support this effort, we recommend that the chlor alkali partnership develop a “best practices” manual, with a checklist of the applicable items listed above, to ensure that excess mercury is managed properly and in accordance with government regulations. This could include monitoring the management of hazardous waste from “cradle to the grave” by using documentation such as a hazardous waste manifest to track environmentally sound transportation, management and disposal.<sup>4</sup> It could also involve securing written documentation ensuring due diligence has been performed regarding the legitimacy of the final disposal method and receipt of written certification from the end disposal site operator that the mercury was managed in accordance with the regulations and in an environmentally sound manner.

Information collection and recording keeping would also contribute toward fulfilling requirements of the Minamata Convention. Under Article 5.5(c), governments with mercury cell chlor-alkali plants have an obligation to report to the Secretariat every three years on the estimated amount of mercury used at these facilities.

Thank you for the opportunity to provide input.

cc Partners of the Chlor-Alkali Partnership

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<sup>4</sup> For example, the U.S. Resource Conservation and Recovery Act (RCRA) requires that all hazardous waste shipped off-site be tracked from "cradle-to-grave" using a manifest that provides information about the generator of the waste, the facility that will receive the waste, a description and quantity of the waste (including the number and type of containers), and how the waste will be routed to the receiving facility. Because hazardous waste is also regulated by the U.S. Department of Transportation (DOT) under its hazardous materials laws, the manifest was developed to meet both U.S. Environmental Protection Agency's (EPA's) requirements for a manifest, and DOT's requirements for "shipping papers." For more information, see: <http://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act>