Copper Industry “Business Venture” in Support of IMO MARPOL Annex V/IMSBC/MHB Compliance

Background:
Throughout the period from 2Q 2012 until today, the European Copper Institute (ECI) has coordinated a global project to support its members and business-venture partners in complying with the regulatory changes announced, in early 2012, to the International Maritime Organisation’s MARPOL Annex V. These impact the conditions under which discharges of solid bulk cargo residues can be made.

- Residues from solid bulk cargoes, classified as “Harmful to the Marine Environment” under the revised MARPOL Annex V guidance (adopted at 2012 IMO-MEPC 63 meeting1), can no longer be discharged at sea. The regulation applies to bulk materials such as metal concentrates, matte, scrap and slags.
- Considering the very short time between announcement and implementation, some interim measures have been in place between 1st Jan 2013 and 31st Dec 2014. During this period, self-classification has been accepted, and some relaxation in the discharge protocols has been possible under certain, well-defined criteria. The relevant IMO documents are available from the links on ECI’s website.

Specifically, ECI’s project was to determine how to appropriately classify copper concentrates and then to identify which of them required classification as HME.

Achievements:
As of the end of October 2014, ECI has achieved and delivered on the following:

- Prepared a work plan and secured approval from its industry advisory group
- With funding from the International Copper Association (ICA), conducted a research program aligned with regulatory needs and the approaches of other associations (e.g. Eurometaux, ICMM)
- Developed a classification tool and applied it to 119 individual concentrates
- Built a generic Excel model that allows individual companies to determine, in a quick and cost-effective way, the classification of their concentrates (based on a combination of elemental and mineral compositions). The model automatically prepares an IMO statement for the shipper
- Signed up >10 concentrate suppliers, who are not ICA members, to participate in and co-fund the activity2. The one time, tonnage based fee ranged from 5,000 to 20,000 €
- Supported Cochilco (official IMO observer) and ICMM in advocacy actions towards IMO
- Held regular webinars to keep industry up to date and agree follow-up activities.

Results:

- The model demonstrates that only 4, out of the 119 concentrates (3 - 4%), merit HME classification
- This contrasts with the early 2012 situation, whereby the IMO authorities assumed that all copper (metal) concentrates would merit HME classification. It also contrasts with the assumptions, of several industrial companies, that their concentrates would classify as HME
- Based on International Copper Study Group data, which reports an annual trade in concentrates of +/- 6 million tonnes copper contained, plus industry information on actual demurrage fees and cleaning costs, not being classified as HME has allowed the copper industry to avoid an extra cost burden of between $50 and $100 million per year (2.5 - 5 $/T of total concentrate)

1 IMO – MEPC : International Maritime Organisation Marine Environmental Protection Committee
2 This was not “profit generating” exercise. Under EU REACH, the authorities made it clear that data owners could not “profit” from whatever assets they may have. This spirit of fair cost sharing has been embedded in this activity from the beginning.
Current status of MARPOL Annex V:

At the IMO’s September 2014 meeting, the key recommendations made by the technical committees, for consideration and decision by the Marine Environmental Protection Committee (MEPC68) in May 2015, to facilitate the implementation of MARPOL Annex V are to:

• Clarify the legal link between MARPOL Annex V and the IMSBC code
• Give mandatory status to the HME criteria
• Develop guidance for the application of the Global Harmonized System to determine the HME classification of solid bulk cargoes
• Give mandatory status to the shipper’s declaration regarding HME classification (or not)
• Not proceed with the process of setting up HME and non-HME lists

Extension (Phase II) of business venture to IMSBC/MHB:

In 1Q 2013, the IMO approved revisions to the International Maritime Solid Bulk Cargoes schedules. These impose additional requirements on the reporting, by shippers, of physico-chemical hazards and the human health hazards for workers during the loading, shipping and unloading of Materials classified as Hazardous in Bulk (MHB). Such a classification will increase the required level of risk management measures to ensure maritime safety.

ECI, in co-operation with its MARPOL Annex V industry advisory group and ICMM, has been following carefully these developments. The scope and deliverables of ECI’s second phase of work for 2014 and 2015 are to:

• Follow the relevant IMSBC proposals and, through regular webinars, agree “copper” responses with the industry advisory group
• Provide leadership for the development of copper-specific technical responses and advocacy tools for use at IMO and national level
• With funding from the International Copper Association (ICA), conduct a research program that is aligned with the regulatory needs and the approaches of other associations (e.g. Eurometaux, ICMM)
• Input these in close co-operation with ICMM and those entities entitled to submit advocacy to IMO (e.g. Cochilco)
• Deliver a technical substantiation dossier (with test results, studies and assessments)

The costs for Phase II of the business venture will be shared between ICA/ECI members and non-members. ICA/ECI’s share is a prioritised line item in the 2014/2015 budgets (no additional fee required). Non-members are required to pay a fair contribution (see below) to participate in, and benefit from, this common approach.

The business venture approach provides the legal framework for companies to share confidential data with the ECI Secretariat. ECI will only show results/models using aggregate data – no individual data will be disclosed to other CCWG members.

Estimated budget for 2014 - 2015:

<table>
<thead>
<tr>
<th>Activity</th>
<th>€</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic testing to support physico-chemical and human hazard assessments</td>
<td>100,000</td>
</tr>
<tr>
<td>Third party consultancy support</td>
<td>25,000</td>
</tr>
<tr>
<td>Travel expenses for IMO advocacy meetings</td>
<td>15,000</td>
</tr>
<tr>
<td>ECI expert resources – 60 days (20 in 2014/40 in 2015)</td>
<td>50,000</td>
</tr>
<tr>
<td>Total</td>
<td>190,000</td>
</tr>
</tbody>
</table>
While this is a sizeable budget, it is to continue to secure regulatory compliance for a global market of +/- 6 million tonnes of concentrates (contained copper), approximately 90% of which undergo marine transportation.

It should also be recognised that the ICA’s annual investment in its health and environment program, of +/- > $5 M/year for the past ten years, has provided ICA/ECI with the expertise and scientific confidence to undertake this challenging project within the allowable time period. The fees payable by non-members include a contribution towards this past investment.

**Fees payable by non-members of ECI/ICA:**

Given the inter-linked nature of both phases, all business venture partners who signed up for Phase I have now been asked to sign up to Phase II (the fees for both phases are the same).

New partners will pay one single fee, covering both Phases I and II. This is based on the annual production, or shipments, (P) of copper concentrates by the non-member company. P is the average of actual global production, for 2013 and 2014, or global shipments for traders, in **metric tonnes of copper content**.

<table>
<thead>
<tr>
<th>P in tonne/yr copper content</th>
<th>Single fee in €</th>
</tr>
</thead>
<tbody>
<tr>
<td>$P \leq 25,000$</td>
<td>10,000</td>
</tr>
<tr>
<td>$25,000 &lt; P \leq 75,000$</td>
<td>20,000</td>
</tr>
<tr>
<td>$P &gt; 75,000$</td>
<td>40,000</td>
</tr>
</tbody>
</table>

**Administration and invitations to participate:**

Non members of ICA/ECI are required to enter into a simple legal agreement with ECI for the provision of these services. This agreement, see Annex 1, covers confidentiality aspects, plus the obligations of both parties.

Companies wishing to participate are invited to complete the agreement and forward to **john.schonenberger@copperalliance.eu**

Dr. Katrien Delbeke, Director Health, Environment & Sustainable Development Program

John Schonenberger, Chief Executive
Annex 1

Cooperation Agreement covering Phases I and II

Between the European Copper Institute (ECI) and [name of third party]

The Parties:

The European Copper Institute (ECI) a company incorporated in the UK, having its branch office at 168 Ave de Tervueren, 1150 Bruxelles, Belgium is managing a project for the specific purpose of assisting the copper industry in complying with revisions to the IMO’s MARPOL Annex V/IMSBC/MHB schedules for the shipment of bulk cargoes.

[Name of third party] (third party) a company registered under the laws of XXX with business address at YYY, agrees to participate in this project, recognising the principles, deliverables and fees contained within the Business Venture descriptions dated August 23rd 2012 for Phase I and November 1st 2014 for Phase II.

Obligations of ECI:

In the execution of this work, third party may provide Confidential Information on its products.

ECI will use the Confidential Information or any part of it solely for the purpose of compiling the deliverables noted in the Business Venture.

ECI will use its best endeavours to safeguard this information and shall not disclose it any party outside this agreement except in cases of:

1. Information which is generally available to the public before the start of this agreement;
2. Information in the public domain or which becomes generally available through standard public provisions for acquisition of the information;

Obligations of third party:

Provide to ECI, within the reasonable time schedules requested, the required technical assistance and data on its copper concentrates.

Confirm tonnage range (P) in metric tonnes (contained copper).

<table>
<thead>
<tr>
<th>P in tonne/yr copper content</th>
<th>Single fee in €</th>
<th>Company tonnage range (Insert X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P ≤ 25,000</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>25,000 &lt; P ≤ 75,000</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>P &gt; 75,000</td>
<td>40,000</td>
<td></td>
</tr>
</tbody>
</table>

Termination and Governance:

Either party can terminate this cooperation agreement, without prejudice and without a notice period, by giving written notice to the other.

In the event of termination, for whatever reason, the confidentiality clauses contained herein will remain valid for 10 years following the date of termination.

On behalf of the European Copper Institute:

John Schonenberger, Chief Executive

On behalf of third party:

Name and position

---

3 This document is not intended to be a watertight legal agreement. ECI, in cooperation with all business venture participants, will use its best endeavours to complete the venture’s deliverables within the time schedule noted.