



## Webinar “PCB – A Forgotten Legacy?” (3/3)

*8 November 2016, 13:00 (Geneva time, GMT +01:00)*

A series of webinars on Polychlorinated Biphenyls (PCB) by the PCB Elimination Network Advisory Committee members, the United Nations Environment Programme (UNEP) and the United Nations Institute for Training and Research (UNITAR).

Among others, participants from Venezuela, Iran, Egypt, China, Uruguay, France, Liberia and the United Kingdom joined the webinar.

### **Agenda:**

1. Opening of the webinar
2. Presentation by **Ms. Claudia Cabal**, representing holders of PCB within the Advisory Committee of the PEN

*Storage and Risks, Case study on Paraguay*

3. Presentation by **Ms. Anna Ortiz**, party-nominated member (Costa Rica), representing the Group of Group of Latin America and Caribbean Countries (GRULAC) within the Advisory Committee of the PEN

*An introduction into the PCB Management Guidance with an emphasis on sampling and testing*

4. Presentation by **Ms. Mihaela Paun**, party-nominated member (Romania) representing Central and Eastern Europe (CEE) within the Advisory Committee of the PEN

*PCB in Open Applications*

5. Opportunity to ask questions and share comments

6. Upcoming activities

7. Closure of the webinar

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## **1) Opening of the webinar**

Ms. Elsemieke de Boer, UNITAR, welcomed the participants and explained that this webinar is the third in a **series of webinars** with the theme “**PCB – A Forgotten Legacy?**”. She introduced the speakers and the agenda, and informed the participants that the notes and PowerPoint slides of the webinar series will be shared with the participants afterwards and soon published online.

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## **2) Presentation by Ms. Claudia Cabal, representing holders of PCB within the Advisory Committee of the PEN**

### ***Storage and Risks, Case study on Paraguay***

Ms. Claudia Cabal started her presentation by explaining that despite the large PCB inventories since the implementation of regulatory controls, releases of PCB to the environment through spills and fires continue to occur. Ms. Claudia Cabal explained that improper storage is extremely common. Disposal of PCB is therefore of high importance and storage should be evaluated. Some characteristics of improper storage are the following:

- Open area exposed to rainwater
- Outdated inventories
- Equipment not sampled
- Floor without barriers to percolation

Ms. Claudia Cabal elaborated on a case study in Paraguay. On 14 October 2015 a fire took place in a transformer storage located in a densely populated metropolitan area 11 km from the capital Asuncion. Ms. Claudia Cabal was part of the team of the UNEP mission that took place just after the accident from 9 to 22 November 2015. The mission evaluated the risks of the fire to the environment and human health.

After showing some photos of the site of the accident, Ms. Claudia Cabal moved on to recommendations for better storage in the short and medium term. Consequently, she mentioned that the following aspects should be taken into account for proper storage:

- A good database
- Sampling
- Creating different storage for hazardous storage
- Firebreaks

She added to this that firemen and doctors need necessary training.

Ms. Claudia Cabal concluded that it is relevant to understand that having environmental policies and pretty operational controls are not enough when we have improper storages. It is of high importance to establish proper storage.

**Questions:**

- Ms. Chen Yuan, a member of the PEN representing China, Asia and Pacific, asked for clarification about PowerPoint slide. 11. Ms. Claudia Cabal answered that the numbers refer to the units and that these are estimates as there is no database.
  
- Ms. Jacqueline Alvarez, Science and Risk unit leader from UNEP's Chemicals and Waste Branch, asked if there is a follow up to the mission that took place just after the accident. Ms. Claudia Cabal answered that the government is very much preoccupied and that there is an urgent need for a follow up.
  
- Ms. Jitka Strakova, Coordinator of the Secretariat of Dioxin, PCBs and Waste WG of the IPEN asked if the transformers were transported somewhere else after the fire, or if they are still on the site. Ms. Claudia Cabal answered that they are now properly stored.
  
- Ms. Manal Farag, Focal Point in Egypt, asked what the main releases of PCB in the environment are. Ms. Claudia Cabal answered that it is oil containing PCB. She further explained that the firefighters used water during the fire and did not make use of appropriate equipment. In general there is a lot of rain in Paraguay which results in dioxins and furans releases into ground water.
  
- Ms. Sanaz Jafarzadeh, a member of the PEN representing Iran, Asia and Pacific, asked Ms. Claudia Cabal about the ventilation systems in storage places. Ms. Claudia Cabal answered that natural ventilation is mostly preferred in storage places.

**3) Presentation by Ms. Anna Ortiz, party-nominated member (Costa Rica), representing the Group of Group of Latin America and Caribbean Countries (GRULAC) within the Advisory Committee of the PEN**

***An introduction into the PCB Management Guidance with an emphasis on sampling and testing***

Ms. Anna Ortiz started her presentation by emphasising the fact that cross contamination has often led to larger inventories and is therefore an important aspect to take into account for proper equipment management. The disposal cost and the health and environmental impact are other factors of importance for proper equipment management.

She continued explaining that the most important aspect of an inventory has two parts: 1) an initial inventory, which addresses in and out of use equipment and 2) collecting information in the maintenance process.

For measurement, the following should be taken into account: type of equipment, serial number, KvA, manufacturing year, weight, method of analysis, date of analysis, PCB content. According to Ms. Anna Ortiz, especially knowledge of the serial number is very important. The KvA refers to the estimate weight of the oil. She added that in order to define equipment as valid, it should be sealed.

There are different procedures for taking samples: Chlor-N-Oil and L2000DX. Gas Mass Chromatography is used to see exactly how much PCB you have.

Sometimes results are false because it has been contaminated with other liquids (this is an issue especially in tropical countries) or because during regular maintenance process there may have been the use of solvents that contained chlorine. The Chlor-N-Oil and L2000DX determine chlorine content not specifically PCB content.

After the Gas Mass Chromatography is decided what needs to be done with the transformer.

It is important to label the equipment, isolate it from PCB free equipment, use a drip tray or absorbent material below equipment and ensure an isolated maintenance process. Attention should be paid to corrosion.

Finally, Ms. Anna Ortiz referred to the complete PCB Management Guidance document on the UNEP and BRS website:

[http://www.unep.org/chemicalsandwaste/Portals/9/images/PCB%20Management%20Guidance\\_Final.pdf](http://www.unep.org/chemicalsandwaste/Portals/9/images/PCB%20Management%20Guidance_Final.pdf)

## Questions:

- Ms. Jacqueline Alvarez asked if Ms. Anna Ortiz could provide a concrete example of poor maintenance. Ms. Anna Ortiz referred to false results during a project in Costa Rica due to problems with the solvent. Consequently it was asked what elements can alter the results. Ms. Anna Ortiz explained that it is important to assess if it is the original PCB oil or if cross contamination has taken place. Knowing this fact can help in making high cost decisions.
  - Ms. Jacqueline Alvarez asked if Ms. Anna Ortiz could provide a cost indication of mismanagement. Ms. Anna Ortiz explained that is largely depends and that there are no specific figures. She continued that the amount of PCB to be eliminated has often increased because of cross contamination. Therefore many companies take cross contamination out. Ms. Jacqueline Alvarez stressed that maintenance and cross contamination remind us of theme of the webinar, PCB a Forgotten Legacy. The size and importance of the problem should not be underestimated.
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## **4) Presentation by Ms. Mihaela Paun, party-nominated member (Romania) representing Central and Eastern Europe (CEE) within the Advisory Committee of the PEN**

### *PCB in Open Applications*

Ms. Mihaela Paun explained that PCB in Open Applications are mentioned in the following part of the Stockholm Convention. According to Annex A, Part II (f) of the Convention:

“Parties shall endeavour to identify other articles containing more than 0.005 per cent polychlorinated biphenyls (e.g. cable-sheaths, cured caulk and painted objects) and manage them in a manner protective human health and the environment (according with paragraph 1 of Article 6)”.

It is estimated that approximately 21% of produced PCB were used in open applications. However, it is estimated that 50% of the emissions come from Open Applications

PCB were widely used to act as: flame retardants, plasticizers, coolants and lubricants, impregnating agents and coats.

PCB in Open Applications can cause direct exposure to humans.

Some of the risks of PCB in Open Applications are the following:

- In fire: formation of dibenzo-p-dioxins and dibenzofurans
- Leaking, flaking, deterioration
- Inexpert removal and inappropriate disposal

Examples Open Applications containing PCB are: caulks, oils and grease, cables and cable sheaths, paints and plaster, adhesives, anti-corrosion coatings, surface coatings such as floors. PCB applications were often installed together with Asbestos materials.

Ms. Mihaela Paun continued introducing the PCB Elimination Network (PEN). The PEN is a global multi-stakeholder network that promotes and encourages the environmentally sound management (ESM) of Polychlorinated Biphenyls (PCB) with a view to attaining the 2025 and 2028 goals of the Stockholm Convention.

- There are currently still some vacancies within the Advisory Committee of the PEN, such as the WEOG representatives.
- PEN membership is open to governments, intergovernmental organizations, donors, PCB holders, non-governmental organizations, and industry, experts/academia and business sectors. The PEN currently counts 439 members.
- To apply for PEN membership, please send an e-mail to: [science.chemicals@unep.org](mailto:science.chemicals@unep.org)

Switzerland has created an inventory on PCB in Open Applications. This can serve as a good example for other countries.

### **Questions:**

Ms. Manal Farag, Focal Point in Egypt, asked if the goals of phasing out the use of PCB (2025) and ensuring Environmentally Sound Management (2028) of the Stockholm Convention are also the goals for PCB in Open Applications. Ms. Mihaela Paun answered that the deadlines are for PCB in closed applications but that there is also reference to PCBs in Open Applications.

Ms. Sanaz Jazarfاده asked how we can identify PCB in Open Applications. Ms. Mihaela Paun answered that we are still in the early stages of this. There are only a few countries we can create such an inventory. She mentioned that Switzerland has provided some approaches and that UNEP is working on establishing a more comprehensive framework. Ms. Jacqueline Alvarez added to this that there is no standardized method for PCB in Open Applications. UNEP is working on providing easy tools for Open Applications inventories and methods.

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## **5) Upcoming activities**

- Second round of webinars before COP8
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- Awareness raising materials, PCB – A Forgotten Legacy?
- **Eight Conference of the Parties (COP)** to the Stockholm Convention, COP 8, April – May 2017

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## 6) Closure of the webinar

Ms. Elsemieke de Boer thanked everyone for their participation. She announced that a second round of webinars will be organized in the months before COP8 and that new awareness raising awareness materials with the theme PCB a Forgotten Legacy are being developed.

For more information about the webinars, please contact Ms. Jacqueline Alvarez, [Jacqueline.ALVAREZ@unep.org](mailto:Jacqueline.ALVAREZ@unep.org) or Ms. Elsemieke de Boer, [Elsemieke.DEBOER@unitar.org](mailto:Elsemieke.DEBOER@unitar.org).