

2024

PCB Webinar Series

Webinar #3

PCB Legislation and Company Policies

Webinar Report

18 December 2024



unitar

United Nations
Institute for Training and Research

Introduction

Polychlorinated Biphenyls (PCB) are a class of synthetic chlorinated organic chemicals that represent a risk as they are toxic to wildlife and humans, persistent, and can bioaccumulate and travel long distances in the environment. Furthermore, they are classified as carcinogens, and they can suppress the immune system, which can increase the risk of developing a wide variety of diseases. There is scientific evidence that humans are exposed to PCB through ingestion of animal fats, inhalation, and absorption through the skin. Workers in the electrical sector can be particularly exposed to PCB as these chemicals may be present in older electrical equipment such as transformers, capacitors and fluorescent lighting ballasts.

The PCB have been listed under the **Stockholm Convention** as Persistent Organic Pollutants (POPs). Parties that ratified the Stockholm Convention aim to eliminate the use of PCB by 2025 and to provide their environmentally sound waste management by 2028.

Noting that the environmentally sound management of PCB requires enormous efforts and specific technical knowledge from different stakeholders -from national governments, companies, and international and civil society organisations, among other sectors-UNITAR developed the **2024-2025 PCB Webinar Series** to raise awareness and enhance global and national capacities.

This Webinar #3, "PCB Legislation and Company Policies" aims to introduce critical aspects of the PCB regulatory framework, as well as national experiences. It will also include practical considerations that companies could integrate within their environmental policies. This event also served to collect views and questions from participants to advance in the definition of topics for the following webinars of the series.

Agenda

2:00 - 2:05 PM	Introduction	Sofia Schlezak, (UNITAR, PCB Projects Coordinator)
2:05 - 2:25 PM	Implementing the Stockholm Convention provisions to meet the 2025 and 2028 targets on PCB elimination	Agustin Harte (BRS Secretariat)
2:25 - 2:45 PM	National legislation experience	Carolina Banaru (Ministry of Environment, Republic of Moldova)
2:45 – 3:00 PM	Open questions from the public	All
3:00 – 3:20 PM	How to integrate PCB management in your company	Mario Mendoza (UNITAR, PCB Sr Expert)
3.20 - 3.40 PM	Company's experience	Teysa Cornejo Yumpe (Luz del Sur S.A.A, Peru)
3.40 - 3.55 PM	Open questions from the public	All
3:55 – 4:00 PM	Closing remarks	All

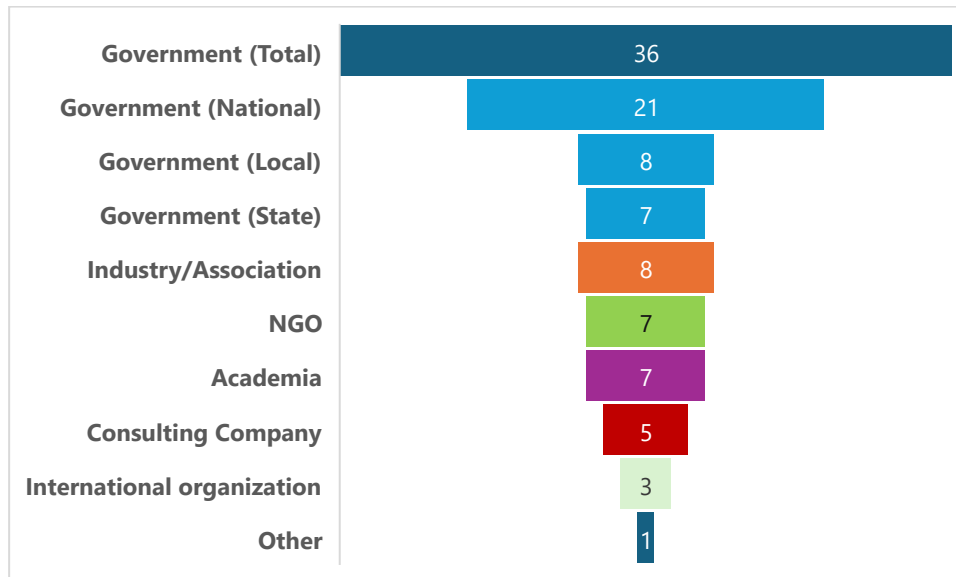
Resources

The resources for this webinar (flyer, presentations, satisfaction Survey, recording) are available in the [Shared Folder](#) and in the [PCB e-Learning Platform](#)

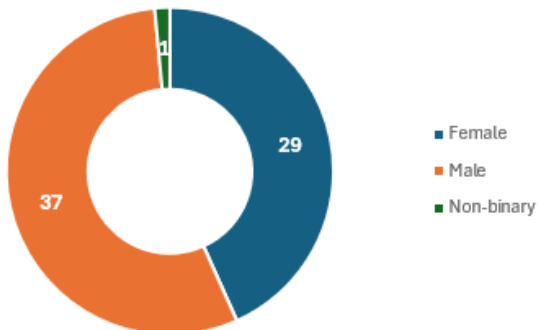
Attendance breakdown and representation

Total attendance: 67 participants¹

SECTORS



GENDER DISTRIBUTION



COUNTRIES REPRESENTATION

Country	#	Country	#	Country	#
Costa Rica	8	Switzerland	2	Jamaica	1
Poland	6	Venezuela	2	Liberia	1
Argentina	3	Belgium	1	Mali	1
Dominican Republic	3	Benin	1	Morocco	1
Mexico	3	Botswana	1	Myanmar	1
Antigua and Barbuda	2	Cameroon	1	Nigeria	1
Colombia	2	Canada	1	Philippines	1
Honduras	2	Chile	1	Russia	1
Hungary	2	Croatia	1	Saudi Arabia	1
Italy	2	Egypt	1	Senegal	1
Madagascar	2	Ethiopia	1	Tunisia	1
Peru	2	Germany	1	United States	1
Sweden	2	Indonesia	1	Yemen	1

¹ The total number of participants was 81, with a maximum concurrent attendance of 67 participants.

Questions received and answered

DISCLAIMER: PCB experts suggest the following answers based on their academic training and professional experiences. Please refer to official materials for legal provisions related to the Stockholm and Basel conventions.

Q: Can we get the presentations after the webinar? A: Yes, all these materials are available online in our platform: UNITAR PCB learning platform/Webinar series/ 2024-2025 PCB Webinar Series — Webinar #3: <https://pcb.unitar.org/webinar-series/webinar-3/>

Q: Could the speakers address legislation specifically related to PCB-contaminated soils? What are the key regulatory requirements in this area? What are the best practices for companies, such as energy companies, that are responsible for soil contamination? A:

Best practices for companies to avoid soil contamination: Follow best practices and legal requirements for storage. These should include, for example, i) Setting up restricted areas for only few trained people to access these area, ii) Ensuring oil-proof floor because to prevent any oil leaks touching the soil; iii) Having a secondary containment and gutters to hold the contaminated oil; iv) Proper ventilation; v) Regular inspections to check labels conditions, drums sealing, and transformers conditions; vi) Specific kits for contingencies such as spills and leaks of oil, including fire extinguishers; vii) Proper working area to ensure enough space for loading and unloading operations as well as enough aisle for space for each transformer.

The regulation framework must determine the maximum limit allowed for soil use. Usually, industrial areas have the highest threshold, although we can restrict where they can be used with human presence (offices or workshops) or just for industrial activities without human presence (warehouses).

Q: How can we evaluate the effectiveness of the PCB management measures implemented? A: Within the Convention, there are a number of measures. Article 3 establishes that each party must prohibit the production and use of PCBs and other POPs listed in Annex A, and must not allow the import or export of these chemicals unless it is for environmentally sound management or disposal. To evaluate the effectiveness of this measure, the key is to monitor whether the prohibition on production, use, and trade is being enforced. This includes ensuring that no illegal production or use of PCBs is occurring and that imports or exports are only taking place for the purposes of environmentally sound management or disposal.

PCBs, like other toxic chemicals such as dioxins and furans, can also be produced unintentionally, particularly during uncontrolled combustion and high-heat industrial processes. Article 5 requires each party to reduce, minimize, and ultimately eliminate unintentional releases of PCBs. The effectiveness of this provision can be evaluated by looking at whether countries have developed and are implementing action plans, known as National Implementation Plans (NIPs), to reduce unintentional releases. This can be assessed by reviewing the specific measures taken in these plans, such as exhaust and release control measures, and the extent to which they are reducing emissions.

The Convention also encourages the use of Best Available Techniques (BAT) and Best Environmental Practices (BEP) to address unintentional PCB production. To evaluate how well these techniques are being implemented, it is important to assess whether countries are applying the recommended measures, such as substituting materials or improving industrial processes that may produce PCBs. Guidance has been developed by an expert body to help countries apply BAT and BEP effectively,

and evaluating the uptake of this guidance is crucial to understanding whether these measures are having the intended impact.

Q: Key points to consider in the regulatory text for PCB management? A: When preparing national regulations for PCB management, key considerations should include defining PCB-related terms, setting maximum concentration levels, and outlining the obligations of stakeholders, such as equipment manufacturers, maintenance companies, and waste management entities. Regulations should cover the labelling, maintenance, and safe transportation of PCB-containing equipment, as well as the proper methods for their elimination, such as destruction or incineration. It is important to prohibit the voluntary dissolution of PCBs and implement stringent risk control and safety measures, including a contingency plan for emergencies. Additionally, the trade of PCBs—encompassing export, import, and transfer—must be carefully regulated to comply with international standards like the Stockholm Convention. These provisions will ensure the safe handling, disposal, and reduction of PCB contamination while protecting public health and the environment.

The regulation framework must consider the importance of promoting and facilitating PCB elimination using the best technology and practices according to national reality and protecting human health and the environment by ensuring effectiveness.

Q: If there is this need to strengthen the efforts to get to new legislation for those countries that do not have legislation in place, what would be your suggestion considering these coming deadlines?

A: First, parties are urged to have their national legislation in place to implement the convention. Experts insist, even if it's late, to work on the legislation because it creates obligations for every entity, industry or partner, which is a very essential first step.

The legislation doesn't have to be specific on PCB, and might address other chemicals as well. This way, any provision or legislation or regulation addressing POPs in general will be not only useful for PCB, but for managing other chemicals listed under the convention, such as PFAS, PFOS, PFOA, HXS, the recently been listed UV328, and many other chemicals that are not listed, such as plastic additives, but could be listed in the future. Another example is to consider PCB waste as part of the general Hazardous Waste legal framework, falling into the national legislation or local legislation on Hazardous Waste.

Moreover, once legislation is in place, efforts should focus on enforcement, which can include both incentives for compliance and penalties for non-compliance. With the 2025 deadline approaching, it is recommended that countries which have not yet identified and addressed PCBs within their borders develop a strategy. This can be achieved through either regulations or policies, with policies offering more flexibility and a quicker development process. However, effective implementation and enforcement will require appropriate instruments and frameworks. For developing countries, projects have also proven to be valuable tools in advancing towards regulatory targets.

In summary, a coordinated approach involving policies, regulations, and projects is crucial to achieving the targets. Additionally, while national legislation is important, local regulations at the provincial, state, or municipal level may be necessary to effectively control PCB content in equipment and other local sources. Local authorities can play a significant role in quickly implementing and enforcing regulations, ensuring that PCB-related issues are addressed within their specific jurisdictions.

Q: How far a policy and regulatory regime can support identification and sorting & collection scheme of the small devices containing PCB eg. condensers and capacitors, labelling?

A: Technically, the identification of PCBs in capacitors or other small devices is widely known; therefore, national policy and regulation should consider aspects that motivate compliance with the standard. The search for sources of financing should not cease to be a good complement to regulation.

Q: Where could specific international regulations on chemical decontamination of PCB be found (, specifically regarding standards for declassifying chemically treated transformers as hazardous waste)?

A: Please refer to the Webinar #2 materials available here: <https://pcb.unitar.org/webinar-series/webinar-2/>.

Other questions

Q: What is the rationale behind the introduction of a policy prohibiting the use of PCB equipment by environmental ministries? **A:** Environmental authorities usually have the role as "Focal Points" or "competent authorities" for the implementation of multilateral environmental agreements, including the Stockholm Convention. As such, they are responsible of overseeing the implementation and compliance of the conventions' provisions. The introduction of a policy prohibiting the use of PCB is in line with the Convention mandate, to stop the production, trade and use of this chemical which has been identified as a toxic and persistence substance (persistent organic pollutant). The main objective is to eliminate the emissions and releases to the environment to protect nature and human health.

Q: How to coordinate activities within the different ministry and relevant authorities and other arrangements at the national level? **A:** Some countries prefer creating or expanding working groups and hold several meetings to elaborate the National Implementation Plans. This is common practice and recommended by many international organizations as engagement across sectors is highly relevant for chemicals and waste management frameworks. These meetings are not only important to move towards the endorsement of certain documents, but to ensure the same level of understanding about national processes.

Q: How can countries ensure successful interactions between the government and the companies to fulfil the national/local regulation? **A:** One important aspect is clear communication, for example, informing companies about the government's and project's support to help them with regulatory aspects. Having frequent meetings with explanations to make them understand the rules and the reason behind the legislation ("we have to have a sound management of POPs because these are dangerous chemicals and we have to manage them").

Q: What has been the participation and level of responsibility of private companies, specifically those involved in the manufacture of PCBs, in the processes of identification, management and elimination of these compounds? **A:** Regarding companies, public or private, that possess equipment contaminated with PCBs, it is their responsibility to ensure the minimization of the impact on the environment and health and to comply with current national regulations, which, in line with the Stockholm Convention, must establish the decommissioning of contaminated equipment until it is treated and decontaminated, and the environmentally friendly destruction of the PCB content and

contaminated waste. This may include the treatment and recycling of metal parts and dielectric oils. Equipment that has been decontaminated could be put back into operation without problem, if this were the desired option.

Q: To destroy PCB, which is better? thermal or non-thermal method? A: For more information on elimination technologies, please visit: https://pcb.unitar.org/wp-content/uploads/2024/10/webinar_24_1_report_v2.pdf

Q: How can companies and the government incorporate the provisions to protect workers who are dealing with maintenance but also sampling testing and all of that? A: The Stockholm Convention and associated regulations already give us some guidelines to be able to protect the workers from the exposure to PCB by direct contact or by inhalation of the vapors. The most important thing is to isolate the worker from the possibility of having contact with the PCB and this implies the use of Personal Protective Equipment (PPE) protectors that are prepared for chemical elements and in this way have the protection of the worker that on the one hand. On the other hand, the work procedures are very important and have to be adequate for work with PCB in such a way that the isolation and protection of the workers is also achieved.

Q: What do some companies do after dechlorination when there are stocks with concentrations lower than 50 ppm? What happens with that oil? A: For the specific case of Luz del Sur, most of the time they achieved free PCBs, but the oil was not reused because the dielectrical properties could not be ensured.

Next steps

Please email us and let us know your preferred topic for our Webinars in 2025!

Comments? Questions?

cwm@unitar.org