

Invisible News

ISSUE 10

Brought to you by the Basel, Rotterdam and Stockholm Conventions at the 2025 BRS COPs

28 April – 9 May, 2025

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Bathroom

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Environment

PCBs

Polychlorinated Biphenyls (PCBs) Still Around?

PCBs and their global, toxic legacy

How are toxic chemicals that have been banned for decades still affecting your health? Even though some chemicals are no longer produced, that does not mean they are not around today. In fact, they are in your food, in the air, and even in your own body.

Take Polychlorinated Biphenyl (PCB) for example. This chemical was used in closed applications (such as electrical transformers) and open applications (such as paint) for years. They were once considered a marvel in the manufacturing industry until it became clear what a significant risk they pose.

PCBs are among the original twelve persistent organic pollutants listed under the Stockholm Convention. They are toxic, persistent, and bioaccumulative, with well-documented impacts on human health and the environment. Due to these risks, these synthetic human-made chemicals were banned from production and commerce in 2004.

If PCBs have not been in production for years, then how are they still affecting you? The answer is in PCBs ability to persist in the environment for long periods of time and travel over great distances via air, water, and even migratory species. Essentially, PCBs are allowed nowhere but can be found everywhere. In fact, everyone in the world is likely to have PCB quantities in their body, and it is having an impact.

So, how does this invisible substance make itself visible? Well, PCBs leave a big mark on the environment and on human health. They can accumulate in fatty tissues and bio-magnify higher up in the food chain, where they can be harmful to top predators such as tuna, seals, polar bears and humans. They can affect your hormone system, reproductive system, and immune system. They also can increase your risk of cancer.

Making the Invisible, Visible

For more information, visit the [Stockholm Convention](https://www.stc.se/) website.



Global Elimination Program on PCB (GEP-PCB)

The Challenge – Eliminating legacy PCBs across Energy and Industrial Sectors

In December 2024, the Global Environment Facility (GEF) Council approved a groundbreaking Global Elimination Programme for PCB (GEP-PCB). To date, PCBs still remain in use and stored awaiting for safe disposal in many countries, posing a significant threat to both environmental and human health. A vast majority of these PCBs are used as insulating fluids in transmission and distribution (T&D) transformers including other equipment across energy and industrial sectors around the world.

The GEP-PCB aims to address multiple challenges to eliminate PCBs while promoting energy transition and addressing environmental and social risks through a coalition of diverse partnerships. The main objective of the proposed Global Program is to scale up PCB elimination in select countries across key regions through a phased approach by leveraging energy sector operations. The program takes an innovative approach by integrating PCB elimination with ongoing energy sector modernization projects. It also establishes an integrated Standardized Template Approach (STA) in tackling complex energy and environmental sectoral issues while establishing a framework for meeting the Stockholm Convention's 2025 and 2028 PCB elimination goals.

The Global Elimination Programme for PCB (GEP-PCB) was set up through the submission of a Program Framework Document (PFD) to the GEF. Under Phase 1 of the GEP-PCB initiative, US\$43.80 million in GEF grants has been secured with US\$163 million in co-financing to develop child projects in six participating countries. These six child projects led by various GEF Agencies include: Nigeria and Madagascar (World Bank), Cameroon and Gabon (UNEP), Uganda (AfDB), and Eswatini (UNDP). Collectively, the six child projects aim to dispose approximately 8000 tons of PCBs under Phase 1 by scaling up the elimination of PCB-containing equipment in these countries through the STA.



PCBs found in buildings and construction?

PCBs were widely used as additives in construction materials to improve flexibility, adhesion, and resistance (open applications). However, PCBs are one of the persistent organic pollutants (POPs), and their early identification in building materials is crucial to prevent exposure and potential harm to health and the environment.

While laboratory analysis is required for confirmation, certain warning signs can indicate the possible presence of materials containing PCBs, especially in buildings constructed or renovated between approximately 1950 and 1980. These materials can be found in applications such as:

- Sealants around windows, doors, and expansion joints.
- Thermo-acoustic window insulation from that period.
- Anti-corrosion and wear-resistant paints on walls, floors, equipment, or metal structures.
- Adhesives for floors and other construction elements.
- Fluorescent lamp ballasts and small capacitors manufactured before 1985.
- Oil heating equipment.
- Cables and cable coatings, particularly in medium and high voltage lines.

Ignoring the potential problem of PCBs and other POPs can lead to much higher costs in the future for both public health and environmental management. It is essential to identify if these contaminants are present in buildings, particularly those built or renovated during the period of extensive PCB use, and provide guidance to owners on how to reduce exposure risks.

What can you do?

- Mainstreaming and awareness raising among local authorities, municipalities, builders, and owners regarding PCBs.
- Promoting visual inspection by training technical personnel to identify potentially contaminated materials in buildings and during renovations or demolitions.
- Establishing and enforce regulatory frameworks for construction and demolition waste to ensure safe management and disposal of suspected or confirmed PCB-containing materials.
- Promote cooperation and leveraging the knowledge from countries that have made progress in this area. The Stockholm Convention offers a good framework for action and technical guidance
- Read the next Invisible News sheets to educate yourself about the hazards;
- Visit the websites listed to find out more;
- Discuss with your children, relatives, neighbors.