



TACKLING TOXIC POLLUTANTS IN THE ENERGY SECTOR

What in the world are PCBs?

One of the core facets of UNIDO's persistent organic pollutants (POPs) programme is managing polychlorinated biphenyls (PCBs) with minimal impact on the environment. PCBs are industrial products or chemicals mainly used in the energy sector. They are widely deployed as dielectric and coolant fluids in electrical apparatus, carbonless copy paper and heat transfer fluids. Generally, PCBs are very stable, which explains their persistence in the environment.



Complying with the convention

UNIDO's PCB management and disposal projects aim to create fundamental capacities within industries, governments, institutions and PCB owners, in order to comply with the PCB-related obligations under the

Stockholm Convention on POPs. These projects enhance the critical regulatory and legislative framework and strengthen institutions at the national, regional and local level to manage equipment and waste that contain PCBs in an environmentally sound manner.

How to tackle toxic pollutants

Compliance with legislation is ensured by building capacities in local laboratories for PCB sampling and analysis, transfer of technology know-how for local PCB treatment and elimination and undertaking inspections at PCB-contaminated sites. Environmentally sound PCB management practices reduce PCB releases and risks to human health and the environment. Another major component of all UNIDO PCB projects is disseminating information and raising public awareness.

UNIDO's PCB projects include the elimination and disposal of PCBs. Many PCB projects have leveraged interests of the project recipient countries in non-combustion technology. In many cases, the non-combustion technologies available for PCB decontamination offer technical and financial advantages. One is on-site PCB decontamination (if all the processes are set up in a mobile unit), which solves many technical and procedural barriers for very large transformers that cannot be transported on the road to transformer maintenance facilities. The other is the regeneration of oil. Because workers would usually need to drain and dismantle these transformers, this helps to reduce the workers' risk of exposure to PCBs.





Project video 'UNIDO POPs Programme - 3 projects funded by GEF' at <https://youtu.be/ITPaS00i9Z8>

UNIDO has capitalized on lessons learned throughout the implementation phases and has been able to replicate and deploy the technology as best practice in other countries with different institutional settings and technical capacities. Financing from the Global Environment Facility (GEF) has played a catalytic role for the development and deployment of non-combustion technologies in project recipient countries. UNIDO has assisted 20 countries in PCB management, including highly successful technology transfers.

Destroying pollutants in the Philippines



In 2007, the government of the Philippines, with UNIDO, implemented a GEF-funded project that aims to establish a

non-combustion PCB destruction facility in Bataan Province. The project was commissioned to destroy 1,500 tons of PCB and PCB-containing equipment. Several treatment runs demonstrated that the facility could reduce PCB oils (< 10,000 mg/kg) to the Philippine acceptable level of <2.0 mg/kg.

Decontaminating pollutants in Macedonia

Since the installation of PCB decontamination treatment equipment in a company in the former Yugoslav Republic of Macedonia, 500 tons of PCB-containing transformers have been successfully treated.

In addition, the company responsible for the production and maintenance of electrical equipment now provides a PCB decontamination service. When regional PCB owners send transformers, not only does the company offer diagnosis and repair for common problems, but the company also identifies contaminated transformers, treats them, and returns them to the production process.

To see more, come and join us at
www.facebook.com/EnvironmentDepartmentUNIDO/



UNIDO's Online Presence

Website: <http://www.unido.org>

Youtube: <https://www.youtube.com/user/UNIDObeta>

Facebook: <https://www.facebook.com/UNIDO.HQ/>