

PCB ANALYSIS

Meeting legal environmental requirements

WHAT?

PCB analysis detects the presence of polychlorinated biphenyls (PCB) in transformer oil samples. These toxic organic pollutants were used extensively in transformers for decades because of their ideal properties for use in transformers.



WHY?

The use of PCBs has been restricted for many years and banned for use in new transformers. Nevertheless, large numbers of PCB-contaminated transformers are still in service.

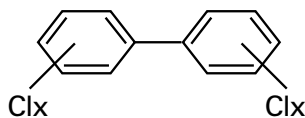
It is legally compulsory for industries and power plants to have the environmental and human risk determined by an accredited laboratory whenever a transformer is scrapped, maintained, displaced, sold or when an oil change takes place.

HOW?

We use gas chromatography equipped with an electron capture detector (GC-ECD) to quantify the concentration of PCB in transformer oil.

We employ several analytical test methods:

- > IEC 61619
- > DIN 51527
- > OVAM AAC3/All



There are 109 PCB congeners that differ by the number and position of the chlorine atom on the 2 phenyl rings.



Analytical chemists follow specific hands-on training on PCB analysis organized by Laborelec.

ANALYSIS	METHOD	REQUIRED OIL VOLUME
PCB (**)	DIN 51527	50 ml
PCB (**)	IEC 61619	50 ml
PCB (**)	OVAM AAC3/All	50 ml
PCB (other matrices: sludge, waste, water, ...)	Laborelec method	



*(**): Analyses performed under ISO 17025 accreditation—Measurement uncertainties available on demand*