

Law No. 14.250 on the disposal of materials, fluids and electrical equipment contaminated with polychlorinated biphenyls (PCBs)

Region: Brazil

INTENDED AUDIENCE

This Regulatory Alert is intended for IAEG members in Brazil who handle materials, fluids or electrical equipment contaminated with polychlorinated biphenyls (PCBs), including their waste.

EXECUTIVE SUMMARY

PCBs are a group of man-made compounds that are widely used in numerous applications, including:

- » electrical insulating fluids in transformers and capacitors;
- » hydraulic fluids;
- » heat transfer fluids;
- » lubricating fluids;
- » adhesives;
- » oil-based paints; and
- » plastics.

These substances have shown to cause adverse effects on human health (e.g. cancer, reproductive harm and immune system suppression) and the environment. Consequently, PCBs are listed and thus regulated under the Stockholm Convention as Persistent Organic Pollutants (POPs).

The Stockholm Convention was effectuated in Brazil through Decree No. 5.472 on 20 June 2005, which committed them to eliminate PCBs in the Brazilian territory by 2028. However, the fulfillment of the obligations under the Convention and Decree posed several challenges; certain equipment and materials were found to be contaminated with PCBs. For example, many transformers are contaminated with PCBs from improper maintenance. Therefore, the proper storage and disposal of such equipment are imperative.

On 25 November 2021, Brazil published Law No. 14.250, which enforces the controlled disposal of PCBs and their waste, and the decontamination and disposal of transformers, capacitors and other electrical equipment contaminated with PCBs. This Law aims to complement the provisions provided by the Stockholm Convention.

BACKGROUND ON REGULATION

Background:

PCBs are mainly regulated in Brazil through Decree No. 5.472, which implements the Stockholm Convention on POPs.* This group of substances is listed in Annexes A and C of the Convention, which obliges Brazil to:

- » **eliminate** the production and use of PCBs (Annex A); and
- » **reduce** the unintentional release of PCBs (Annex C).

Specific measures are outlined in Part II (Annex A) and Part V (Annex C) under the Stockholm Convention (see 'Regulatory Obligations' section).

In order to ensure compliance with the obligations under the Convention, Brazil supplemented Decree No. 5.472 with Law No. 14.250, which further regulates equipment contaminated by PCBs.

Definitions:

- » **PCBs:** aromatic compounds formed in such a way that the hydrogen atoms of the biphenyl molecule (two benzene rings joined by a carbon-carbon single bond) can be replaced by up to ten chlorine atoms;
- » **Holder:** a legal entity that uses or has under their custody electrical equipment or materials (e.g. transformers, capacitors and absorbent material) contaminated by PCBs;
- » **Environmentally adequate final destination:** disposal of PCBs and their waste through decontamination processes that are licensed by the competent environmental body (Ministry of Environment);
- » **Decontamination:** treatments that guarantee a PCB content lower than the permitted levels (see 'Applicability' section); and
- » **Sealed electrical equipment:** electrical equipment that do not have devices to allow insulating oil contained in them to be drained, replaced by another type of oil or compensation of the oil level.

** Please refer to the Stockholm Convention 2019 Amendment Regulatory Alert for further information.*

APPLICABILITY

Law No. 14.250 applies to any holder of equipment or materials (including their waste) contaminated by PCBs with the following PCB content:

- » equal to or greater than **0.005% by weight**;
- » equal to or greater than **50 mg/kg**; or
- » greater than **100 µg of total PCBs per dm² of surface** for impermeable materials.

Companies that carry out auctions of electric equipment that are contaminated with PCBs are also subject to certain obligations under this Law (see 'Regulatory Obligations' section).

RELEVANT DATES

- » Published (Decree No. 5.472): 20 June 2005
- » In force (Decree No. 5.472): 20 June 2005
- » Published (Law No. 14.250): 25 November 2021
- » In force (Law No. 14.250): 25 November 2021
- » **Deadline for submission of PCBs inventory:** 25 November 2024
- » **Deadline for elimination of PCBs:** 2028

REGULATORY OBLIGATIONS

Holders of electrical equipment or materials (contaminated by PCBs) have certain obligations under Law No. 14.250, which include:

- » providing an inventory of PCBs to the competent environmental agency (Ministry of Environment) **by 25 November 2024** with all materials, oils and electrical equipment (contaminated with PCBs) in operation and stored, including any waste, with its PCB content;

- » submitting the PCBs inventory to the competent environmental agency every two years;
- » registering in the Federal Technical Register of Potentially Polluting Activities or Environmental Resources Users;
- » processing environmentally adequate final destination of equipment or materials (contaminated by PCBs) within **three years after their decontamination and by 2028**;
- » circulating equipment or materials (contaminated by PCBs) only if for preparing an inventory, storage in other units of the same holder and its contractors, or final disposal;
- » selling transformers and capacitors (contaminated by PCBs) only if they have a report which proves the insulating oil contained in the equipment has a PCB content lower than the permitted levels (see 'Applicability' section);
- » regenerating the dielectric properties of insulating oils following decontamination by companies licensed by the competent environmental agency.

In addition to the aforementioned obligations, companies that carry out auctions of electric equipment contaminated with PCBs must keep invoices for any purchases or sales of the equipment.

RISKS TO AEROSPACE AND DEFENSE

Penalties for non-compliance for this Law include fines and/or imprisonment (determined in accordance with Law No. 9.605 of 12 February 1998). Companies in Brazil should determine if they have equipment that could potentially contain PCBs. They should then determine if the regulated threshold quantities are exceeded. If companies still have very old equipment that is being used at their facilities, the potential exists for PCBs to be contained within the fluid of the equipment. Therefore, it is important to conduct sampling and analysis as necessary or use product knowledge to prepare an accurate inventory.

USEFUL LINKS

[Law No. 14.250 of 21 November 2021](#)

[Decree No. 5.472 of 20 June 2005 \(Brazil's enactment of the Stockholm Convention on Persistent Organic Pollutants\)](#)

[Alert 15 - Stockholm Convention 2019 Amendment](#)

[Law No. 9.605 of 12 February 1998 \(criminal and administrative sanctions resulting from conduct and activities that are harmful to the environment, and other provisions\)](#)

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