

Honduras

Not Usain Bolt but a start on PCB inventories anyway

Location of the sites tested in Honduras



The first national inventory of PCBs in Honduras was carried out under the Stockholm Convention enabling activities by the Ministry of Natural Resources and Environment (SERNA), through the Center for the Study and Control of Pollutants (CESCCO) in cooperation with the National Electricity Company (ENEE), the Secretary of Health and the Fire Department.

A team of national consultants from these organizations took care of consolidating the information generated in the preliminary inventory, identifying and selecting sites to be visited, training inter-institutional staff, implementing the PCB inventory questionnaires of the United Nations Environment Programme (UNEP) and performing sampling for analysis of PCBs with the rapid semiquantitative CLOR - N - OIL 50[®] method. The consultants were also responsible for codifying, tabulating, reviewing, analyzing, interpreting and summarizing all the information generated in the inventory.

In summary, the National Inventory of PCBs covered 119 sites located in 13 of the 18 departments of the country including the public (60%) and private (40%) sectors. The national electricity sub-sector accounted for the major number of sites visited (47%). A total of 1,459 questionnaires were used to identify the equipment that were in use or that were phased out. The power and distribution transformers represented 93.8% of the equipment tested.

The estimated mass of all tested devices was 7,621,177 kg and the estimated volume of oil was 2,352,661 kg. The estimated total mass of devices contaminated with PCBs reached 196,196 kg, equivalent to 2.6% of the total mass of devices and the total volume of contaminated oil amounted to 61,074 kg, corresponding to 2.6% of the total volume of oil. Among the 418 electrical devices in use and phased out that were tested using the rapid semi-quantitative colorimetric test CLOR - N - OIL 50[®], 63 (15%) were found to be positive (> 50 ppm).

The national electrical public and private sub-sector is one of the main users and owners of equipment and waste that may contain PCBs. Electric equipment with PCBs are scattered in 23 (19%) of the 119 sites visited, of which 16 (70%) are facilities of ENEE, six (26%) of private companies and one (4%) of a public hospital. Of the 63 electrical equipments 78% (49) are public, with the ENEE the owner of the largest number with 46 electrical equipments and the teaching Hospital in Tegucigalpa with three electrical equipments, respectively. Of the rest, 22% (14) belong to different private companies. From these electrical equipment, 87% (55) are distribution transformers and 11% (7) power transformers. Only 29% (18) are in condition to be used and about 13% (8) showed dielectric oil leaks to the environment nearby. The highest percentage of equipment with PCBs is out of service. However, some medium and high capacity power transformers are in good condition. None of the sites visited has action plans for handling solid and liquid wastes containing PCBs.

In conclusion, the results obtained from the National Inventory of PCBs are preliminary and offer an overview of the status of these compounds in the country. A more detailed analysis of industrial owners of equipment that are contaminated with PCBs is required to expand the size of the sample to complete the electricity sector and to identify other applications or uses of PCBs in the country. It is necessary to create a national registration of users and owners of electrical equipment contaminated or potentially contaminated with PCBs. These initiatives could be promoted through joint venture strategies with stakeholders, mainly ENEE as the largest holder of such equipment.

This article was prepared under the POPs NIP project in Honduras. For more information, please contact the Centro de Estudios y Control de Contaminantes (CESCCO), the Stockholm Convention National Focal Point, at cescco.serna@gmail.com.