

A step by step guide to inventories illustrated by the Republic of Moldova

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In September 2008 the inventory of PCBs in Moldova was launched under the Management and destruction of POPs stockpiles project, financed by the Global Environment Facility (GEF) through the World Bank.

Objectives of the inventory

The inventory aims at creating a database of electrical equipment in Moldova, which contain dielectric oils with PCB in concentrations higher than 50 parts per million (ppm) in a volume above 5 l. The objectives of the inventory are:

1. identification of the holders of electrical equipment with dielectric oil mainly in the electricity sector;
2. sampling and laboratory analysis of dielectric oil;
3. informing the holders of electrical equipment with dielectric oil about the impact of PCBs and the necessity of the inventory;
4. establishing a database containing information on PCB equipment.

A Steering Committee, which was established in November 2008, includes representatives of the Ministry of Economy, the Ministry of Environment, electricity enterprises and consumers.

Inventory of PCBs in the electricity companies

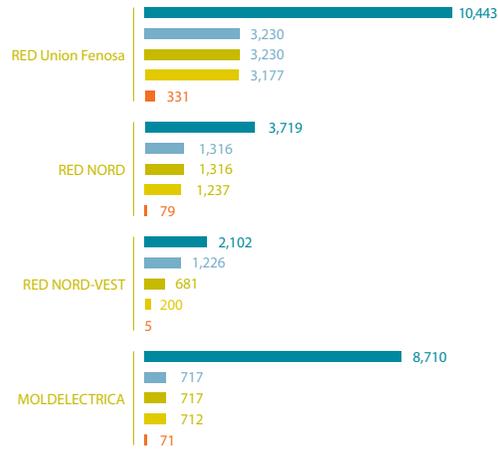
The inventory in the electricity sector covers four power production companies, one power transportation company and three power distribution companies.

By February 2009, inventory teams were created at each company, and were trained on the modality of sampling and supplied with the necessary equipment. A special inventory form containing information about the type of equipment, its owner, placement, etc., was completed for each sample.

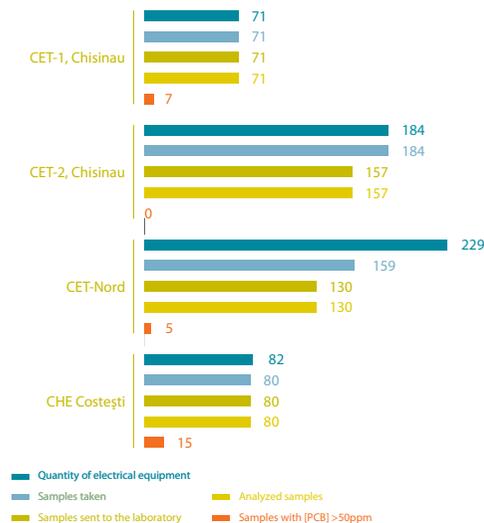
The samples are examined in two stages: At the first stage, all samples are screened with the help of the L2000DX Analyzer. To train personnel in the use of the L2000DX Analyzer and to ensure the quality of data, a training workshop took place with the participation of international experts. Three analytical centres were established at selected electricity companies. To quantify PCBs in positive samples, analysis by gas-chromatography was undertaken.

The inventory process is expected to be completed by the end of 2010. These activities were possible due to the financial support from the GEF, Canadian POPs Fund and the National Ecological Fund of Moldova. An amount of USD 550,000 were allocated for this process.

Inventory of PCBs - power distribution and transport sectors



Inventory of PCBs – power-generation sector



Inventory of PCBs in other sectors with electrical equipment

Food processing, construction, light industry, telecommunication enterprises, water supply and treatment companies and public institutions represent the second major group of holders of potentially PCB-contaminated electrical equipment. The risk of exposure in these companies could be much higher than in the electricity sector, as these entities do not have trained maintenance or repair staff.

To identify holders and carry out the inventory, three trained consultants were equipped with all necessary tools and automobiles and accompanied by the territorial energy inspector during site visits. Samples are taken by the person responsible for the equipment under the supervision of the consultant, who fills in the inventory form, takes pictures and registers the GPS data of the equipment. The selected samples are analyzed by the laboratory of the Hydrometeorological Centre.

Inventory results from holders outside the electricity sector

Zone	Samples	Examined samples	Analyzed samples	Samples with > 50 ppm
North	730	688	377	12
Centre	545	353	339	14
South	589	251	233	18
Total	1868	1292	949	44

Inspected equipment are then labeled with red labels for contaminated equipment and green for PCB free units.

Based on the results of the inventory a data base will be established on the placement of the equipment containing PCBs or contaminated with PCBs.

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The number of projects on PCBs currently being implemented through UNIDO in Armenia, China, Romania, Macedonia, Mongolia, Morocco, Philippines and Slovakia