



## Assisting Utility Customers with Voluntary Phase-Down Efforts

An important element of a successful nationwide PCB reduction effort is to assist users of PCB-containing equipment in voluntarily removing such equipment from

service. To this end, USWAG is committed to working with its individual utility members in promoting strategies to work with their respective industrial and commercial customers (e.g., “primary metered customers”), who are often owners and operators of PCB-containing equipment. The utilities can provide technical assistance regarding the appropriate methods for voluntarily removing PCBs from service.

## Promoting Phase-Down Awareness

USWAG will continue to work with its members to encourage them to communicate the information outlined above to appropriate company personnel so that these objectives are understood and supported at all relevant levels of the company.

## Cooperating with Other Industry Groups

USWAG will work with other industry groups that use PCB-containing equipment and encourage these entities to embrace these phase-down efforts, as well.



# PROMOTING THE VOLUNTARY PHASE-DOWN OF PCB-CONTAINING EQUIPMENT



of utilities across the country in identifying and retiring PCB-containing oil-filled equipment from service *prior* to the end of the equipment’s useful life. These efforts reflect the utility industry’s ongoing commitment to invest substantial resources in *voluntary* measures to help EPA with its Strategic Plan goals of achieving the early retirement from service of large capacitors and transformers containing PCBs.

The results of these voluntary efforts have been significant. Inventories of utility sector PCB-containing equipment are diminishing at an accelerating rate. Many companies, for example, have voluntarily removed certain categories of *all* known PCB ( $\geq 500$  ppm) equipment from their systems far ahead of the equipment’s normal retirement age. In addition, many USWAG member companies have implemented procedures to ensure that most equipment containing PCBs in concentrations  $\geq 50$  ppm (e.g., PCB-contaminated equipment) removed from the field is either disposed of and not returned to service or retrofilled with non-PCB mineral oil before being returned to service.

These commitments and achievements are significant because they help demonstrate that the United States is fulfilling the goals set out in the Stockholm Convention on Persistent Organic Pollutants (the “Stockholm Convention”). The goals require participating nations — including the United States — to “make determined efforts” to identify and remove PCB equipment ( $> 500$  ppm PCBs) from use by 2025, and to “endeavor to” identify and remove PCB-contaminated equipment ( $> 50$  but  $< 500$  ppm PCBs) from use by 2025. To ensure that the United States stays on track for meeting these goals, this document underscores USWAG’s continued commitment to promoting with its members and other users of PCB-containing equipment the early retirement of such equipment, consistent with the requirement for utilities to provide power throughout the country in a reliable and cost-effective manner.

## Background of USWAG’s Commitment to the PCB Phase-Down Effort

As an organization whose members comprise an important class of entities subject to EPA’s federal PCB regulations, the Utility Solid Waste Activities Group (“USWAG”) has worked closely with EPA for over 25 years to help ensure the development of an environmentally protective and cost-effective PCB regulatory program. As part of these efforts, USWAG has worked with its members and various EPA Regions in promoting the determined and continuing efforts

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USWAG was formed in 1978 and is an association primarily dedicated to assisting members in the management of wastes and the beneficial use of materials associated with the generation, transmission, and sale of electricity and natural gas. USWAG is comprised of approximately 80 individual utilities, energy companies, and energy trade associations. Together, USWAG members represent more than 85% of the total electric generating capacity of the U.S., and service more than 95% of the nation’s consumers of electricity and over 93% of the nation’s consumers of natural gas.

If you have questions regarding USWAG’s commitment to the voluntary phase-down of PCB-containing equipment, please contact:

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## Utilities Take Different Approaches

It is important to appreciate that, while PCB phase-down efforts have been widespread throughout the utility industry, the nature and scope of a voluntary PCB phase-down program necessarily differs from company to company. There is not a “one size fits all” approach when it comes to removing otherwise valuable and operating PCB-containing equipment from service. This is due to a number of factors, including the significant physical and operational differences in individual electric and gas utility generation, transmission and distribution systems where the types, configurations, and functions of PCB-containing equipment varies widely among companies and service territories. The sheer number and size of differing utility transmission and distribution systems —

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some of which encompass literally thousands of square miles containing thousands of individual pieces of equipment — also plays an important role in a company’s ability to remove PCB-containing equipment from service. A utility’s financial condition also influences the nature, scope, and pace of any voluntary PCB reduction effort. A utility must also consider public utility commission (“PUC”) scrutiny of voluntary expenditures and reliability of service in evaluating company-specific rate bases.

Further, for many companies that already have removed from service readily identifiable high-concentration PCB equipment (*i.e.*, the “low-hanging fruit”), the per-unit cost of identifying and removing the remaining unknown PCB-containing equipment increases sharply, as do the physical and practical impediments to actually retiring the equipment (*e.g.*, scheduling service interruptions with residential and commercial customers).

Despite differences in the various approaches to individual company PCB phase-down efforts, real progress is being



made. USWAG remains committed to promoting these efforts throughout the utility industry and with other users of PCB-containing equipment. USWAG believes that it is important for EPA to work with the regulated community in developing a practical plan to achieve the goals set out in the Stockholm Convention. This will enable the United States to establish a model for other participating countries and, importantly, will help ensure that all participating countries are working from the same “game plan” in their respective efforts to meet the Convention’s goals.

## Promoting the Retirement of Equipment Identified During Servicing/Repair as Containing $\geq 50$ ppm PCBs

Many utility companies across the country have procedures in place to ensure that most equipment containing PCBs

in concentrations  $>50$  ppm identified after removal from the field is either disposed of and not returned to service or retrofilled before being returned to service. This practice helps ensure the accelerated retirement from service of a large class of potentially PCB-containing equipment (*e.g.*, distribution pole-top and padmount transformers) that could otherwise lawfully be placed back into service. USWAG will continue to actively promote these systematic practices of voluntarily identifying and retiring PCB-containing equipment from service. To the extent necessary, USWAG will work with members in identifying efficient and practical means for implementing the above procedures.

## Developing and Sharing Information to Assist In Identifying PCB-Containing Equipment

An important factor in enabling users of PCB-containing equipment to engage in accelerated PCB phase-down programs is developing the means for identifying the locations of such equipment. This task requires determining what particular pieces of equipment — out of the millions currently in service — contain regulated levels of PCBs (*i.e.*,  $>50$  ppm). In some cases, readily identifiable equipment, such as Large PCB Capacitors in substations and PCB Transformers previously registered with EPA, has already been removed from service.



Thus, the real challenge facing users of PCB-containing equipment is developing the means for accurately identifying

the potential locations of the remaining equipment still in service. This challenge cannot be understated. There are literally millions of pieces of oil-filled electrical equipment in service along hundreds of thousands of miles of transmission and distribution networks where there is no certain way — absent confirmatory testing or physical inspection of each piece of equipment — to ensure that all of the remaining PCB-containing equipment is identified. Aside from the practical obstacles, undertaking such a testing program could damage or compromise the integrity of cover gaskets and/or other equipment components and increase the risk of outages. Compounding this challenge is the fact that the surviving PCB-containing equipment comprises an extremely low percentage of the total amount of electrical equipment currently in service. And, as noted above, the per-unit cost of identifying and removing this equipment increases dramatically as such equipment continually becomes a smaller portion of the total universe of active electrical equipment.

To assist entities in identifying existing PCB-containing equipment still in service, USWAG is committed to working with its members in sharing information regarding the potential locations of this equipment. This goal can be achieved in various ways, such as conducting workshops to share and discuss information concerning sources of PCBs, or methods of identifying equipment likely to be PCB-contaminated. In addition to sharing this information with its members and other users of PCB-containing equipment in the United States, USWAG will coordinate with EPA and the U.S. Department of State in sharing the information with signatories to the Stockholm Convention to assist other countries in meeting their goals with respect to PCB reductions.

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