TOXIC SUBSTANCES SECTION — POLYCHLORINATED BIPHENYLS (PCBs) REGULATION

Activity

Section 6(e) of the Toxic Substances Control Act (TSCA) (Pub. L. 94-469) requires:

(a) by January 1, 1978 the prohibition of the manufacture, processing, or distribution in commerce or use of PCBs except in a totally enclosed manner,

(b) by January 1, 1979 the prohibition of the manufacture of any PCBs, and

(c) by July 1, 1979 the prohibition of the processing or distribution in commerce of PCBs.

The Administrator may grant exemptions to these prohibitions under special conditions. In addition to the prohibitions, Section 6(e) also requires regulations to:

(a) prescribe methods for the disposal of PCBs, and

(b) require PCBs to be marked with clear and adequate warnings and instructions with respect to their processing, distribution in commerce, use, or disposal or with respect to any combination of such activities.

The regulations on marking and disposal are required by TSCA to be in effect by July 1, 1977. In order to meet this schedule, the Environmental Protection Agency established a Work Group composed of representatives of the key offices within EPA and representatives from other Federal agencies that would have a strong interest in the regulation. These primary agencies include the Department of Defense, Department of Transportation, General Services Administration, Federal Energy Administration and the Tennessee Valley Authority.

Background

PCBs are chlorinated aromatic organic compounds which were first manufactured in 1931. The chemical properties that make PCBs useful materials are their excellent thermal stability, their strong resistance to both acidic and basic hydrolysis, and their general inertness including resistance to oxidation. Unfortunately the stability and non-degradability characteristics that make PCBs useful materials also make them highly persistent in the environment. During the late 1960's chemical

analyses showed that PCBs were widely distributed throughout the ecosystem and there was concern that PCBs were a serious environmental contaminant. This concern about PCBs was justified by additional information which demonstrated their chronic toxicity, their pervasiveness and persistence in the environment, and their tendency to accumulate in food chains.

In January 1972, the sole U.S. producer of the chemical restricted the sale of PCBs to only manufacturers of electrical capacitors and transformers. That producer will terminate all manufacture of the chemical in October 1977. EPA has released a series of policy statements, guidelines, and public information documents on PCBs over the past several years.

Information Needs

The work group would appreciate receiving comments on the following matters:

(1) What chemical compounds should be regulated? The Work Group is considering the basic definition of a PCB chemical to be any chemical which is an isomer or a blend of isomers composed of the biphenyl molecule which has been chlorinated to varying degrees. This basic chemical definition would be incorporated into the regulation in such a way that any material with 500 parts per million or more of the chemical would have to be disposed of and marked in a manner provided by these regulations. This would include chemicals that end up with PCBs as an unavoidable byproduct of their manufacture if the PCBs reach 500 parts per million or more. The Work Group needs additional information on the specific chemicals that may become affected by the regulation. Municipal sewage sludge could also be covered by this regulation if it contained 500 parts per million PCBs. More information on PCB levels in municipal sewage sludges would assist the Work Group in better assessing the scope and impact of the regulation.

(2) What types of articles, equipment, and materials should be covered by the disposal regulations? The Work Group is considering direct controls on electrical PCB articles such as transformers, large high voltage (2000 volts A.C. and greater) and low voltage (less than 2000 volts A.C.) capacitors which contain three pounds or more of PCBs, small capacitors which contain less than three pounds of PCBs, and fluorescent light ballasts. Less direct controls would be placed on equipment containing PCB articles, i.e., microwave ovens, air conditioners, television sets. Direct controls would be placed on containers holding liquid PCBs and materials resulting from spills.

(3) What type of ultimate disposal should be required for PCBs? The Work Group is considering requiring high temperature incineration for as many types of PCB mixture, articles, and materials as possible. This would restrict chemical waste landfills to the disposal of drained transformers and containers.

(4) How long will it take for the construction of adequate incineration capacity on a widely distributed basis throughout the U.S., and what provisions should be made for an interim period when adequate capacity does not exist? The Work Group is considering allowing the use of chemical waste landfills for PCB articles for a two year period to provide a disposal alternative. No liquids, except those in capacitors, would be placed in chemical waste landfills. The Work Group is also considering criteria for storage areas. These areas would serve at least a two-fold function. One would be a equalization function to smooth out the movement of PCBs to disposal and the other would be an alternative of possibly several years duration while adequate disposal facilities were being constructed.

(5) Does a procedure exist to adequately decontaminate a transformer sufficiently so that it can be scrapped and the metal recycled without creating an environmental contamination problem? The Work Group is considering establishing an approval process for the Administrator to approve decontamination procedures when their safety and effectiveness has been demonstrated.

(6) When should PCB mixtures, materials, articles and equipment be marked with warnings and disposal instructions? The Work Group is considering a six month implementation period for marking all newly manufactured items, new and existing PCB containers, manufacturers inventory, storage areas, and items being directed to disposal. A nine month implementation period for marking is being considered for transportation vehicles carrying certain minimum quantities of PCBs and PCB articles and also for large low voltage and high intensity discharge capacitors whenever they are serviced. A twelve month implementation period for marking is being considered for transformers and large high voltage capacitors.

(7) Should small businesses be allowed to dispose of their small capacitors in a minimal way such as in municipal solid waste or should they be obligated to use incineration or chemical waste landfills? The Work Group is currently considering allowing only private households to dispose of small capacitors in municipal solid waste. EPA estimates that more

than 870,000,000 small capacitors are currently in service and an unknown number are either owned or serviced by small businesses. Private residential units account for 55,000,000 capacitors, most of which are in fluoresent light ballasts.

If you wish to send comments, please send them to: The Environmental Protection Agency, Office of Toxic Substances (WH-557), 401 M Street, SW, Washington, DC 20460, Attention: Mrs. Vickie Briggs (068004B).

Timetable

April 1, 1977	-	Proposed Regulation on Disposal and Marking published in the Federal Register
May 2, 1977	-	Informal Public Hearing on Disposal and Marking Regulation
July 1, 1977	-	Final Regulation on Disposal and Marking signed by the Administrator
July 1, 1977	-	Proposed Regulation on Manufacturing Bans published in the Federal Register
October, 1977	-	Final Regulation on Manufacturing Bans signed by the Administrator