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R.A. Stoho/N.N. Brandstetter

COMMENTS RELATED TO MARKING AND DISPOSAL OF PCBs

Ref: EPA Notice of Public Meeting; Solicitation of Comments, Dated January 12, 1977

By: N. Ray Clark
On Behalf of: PCB Ad Hoc Committee of
Electronic Industries Association

1. Definition: Although the proposed definition undoubtedly includes all the materials Congress intended to cover in section 6(e) of the TSCA, it appears that it is so broad that it includes materials for which there is no history or indication of environmental damage. We suggest that materials which consist of, or contain, chlorinated biphenyls with other non-chlorine functional groups attached be exempted from the definition, as is done in the Michigan Regulations. Such materials would of course still be subject to other provisions of the TSCA, if applicable.

2. We suggest that the percentage of PCB defined as a PCB mixture be changed from 0.05% to 0.1%. The change would be inconsequential in terms of environmental impact, but could be important economically; for example, scrapings from inside sewer pipes have been found to contain about 1000 ppm of aggregate PCB.

3. We suggest that dirt be deleted as an item of PCB mixtures. There are no doubt hundreds, and probably thousands of locations throughout the country, both small and of substantial size, which have dirt containing more than 0.1 (or 0.05) percent PCB. Examples are sites of small spills which may have occurred as long ago as 1930, as well as dumps and landfills of all types where PCBs or equipment containing PCBs have been discarded over the years. Any regulations which attempt to cover past disposal of PCBs are likely to be unenforceable.
In order to resolve an apparent overlap and ambiguity, we suggest that the identification "large power factor capacitors" be changed to "large high voltage power factor capacitors (2400 volts AC and higher)" in order to distinguish the (high voltage) types usually used by utilities from the large lower voltage (e.g. 480V AC) types commonly used in industrial plants and commercial buildings. The procedures for, and indeed the feasibility of, marking and control of disposition, will undoubtedly be different for the two types. Correspondingly, we suggest that "large industrial and appliance capacitors (greater than 1 kg PCB liquids)" be changed to "large low voltage (below 2400 volts AC) industrial capacitors (greater than 1 1/3 kg PCB liquids)"; also that the PCB content specified for "small industrial and appliance capacitors" be changed from (less than 1 kg PCB liquids) to

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(less than 1 1/3 kg PCB liquids). This will provide a logical break point in terms of location and functional application, as well as in the practicality of labeling and disposal regulations.
We suggest that, for the very practical reasons outlined in my remarks at the December 20, 1976 meeting, "small industrial and appliance capacitors" and "fluorescent light ballasts" be exempted from mandatory labeling and disposal requirements, and be made subject to guidelines as provided in the proposed revision of ANSI Publication C-107.1 (1974). I will quote from my December 20 remarks:

> "A major consideration which applies only to capacitors known as the "small industrial" type must be taken into account in formulating realistic labeling and disposal rules which apply to this product. These capacitors are seldom if ever used as separate and identifiable pieces of equipment; they are components, which are almost invariably used as part of an assembly with other components to make a discrete item of equipment. For example, small capacitors, each of which contains typically about 1 1/4 ounces of PCB, are used in high power factor fluorescent lamp ballasts, which control voltage and current to the lamps. Such high efficiency ballasts are used almost exclusively in commercial and industrial installations, and also to a lesser extent, in homes. The capacitor is sealed in the ballast, which in turn is an integral part of the fixture in which the lamps are mounted. For another example, capacitors which typically contain from a few ounces up to two or three pounds of PCBs are assembled as integral parts of room air conditioners. The common and important factor is that these capacitors are small, they contain little PCB, and they are not normally visible in the product of which they are a part. It is thus apparent that there is little practicality or benefit in labeling such capacitors. This matter is taken into account in the proposed revision of ANSI Publication C-107.1 (1974). A copy of this proposed revision is attached for convenient reference.
> "The State of Michigan, through its Department of Natural Resources, has established rules concerning polychlorinated biphenyls. A copy of these rules is attached for convenient reference. These rules were established after careful study and consideration by a panel which included governmental, environmental and industrial representatives. We believe these rules are realistic, are reasonable, and provide optimum protection for the environment. We strongly urge EPA to take advantage of the care and

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effort already expended in the State of Michigan, and establish regulations which are consistent with the Michigan Rules.
"One important provision of the Michigan Rules is an exemption for small capacitors from the mandatory marking and disposal requirements, and making them subject to voluntary guidelines. Such guidelines are already available in the proposed revision of ANSI Publication C-107.1 (1974) referred to previously."

4. No comments as to proposed categories.

5. We consider that the marking of trucks and of railroad cars used for shipments of less than truckload or less than carload quantities of PCB-containing items is impractical because of multiple pickups and dropoffs, and would serve no useful purpose. The marking of the container or containers in which the "major transport" of PCB-containing items is packaged appears to be a logical means of identification. We believe it is entirely impractical and economically unjustifiable to require marking of large power factor capacitors which are already in use, whether of the high voltage utility type, or the low voltage industrial type. Some 8 million of the former, and an additional 20 million of the latter, are in use in an enormous multitude of locations throughout the country. Most of these capacitors made since 1972 were marked in accordance with the ANSI Guidelines at the time of manufacture. We suggest that those which are identifiable by the user as containing PCB, whether by label or otherwise, should be covered by marking and disposal regulations effective upon removal from service.
We suggest that "large power factor capacitors", "hi-intensity arc light capacitors", and "large industrial and appliance capacitors" be deleted from the requirement for marking when they are serviced; these capacitors are either operable, in which case no attention is required, or inoperable, in which case they are not serviced or repaired, but removed and scrapped.

6. So far as we are aware, incineration of metal-cased items such as capacitors and transformers containing PCBs has not been demonstrated as feasible, although we understand one or more promising trials have been made with small capacitors. We urge that regulations not require the incineration of such items unless or until both technical and economic feasibility has been demonstrated, in facilities which are "in being" at locations which make transportation feasible. We strongly urge that removal of PCB liquid not be mandated for capacitors prior to landfill disposal. Only 20 to 30% of the PCB liquid can be drained; the remainder is trapped in the windings and will not drain out. Also, the economics of attempting to drain very small quantities, and the hazard of mishandling

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and spillage, in our judgement render this procedure not feasible. This matter was carefully considered by the ANSI Panel, and a similar judgement was reached.

7. We believe a regulation mandating incineration or chemical landfill disposal of PCB-containing items from private households, small industrial (and probably also large industrial) capacitors, and lamp ballasts would be impractical, unrealistic and unenforceable. We believe it is necessary as a practical matter to tolerate disposal in conventional sanitary landfills. It is fortunate that PCBs are readily adsorbed on the surface of soil particles, and have extremely low mobility under such conditions. In addition, the variety of PCB used in capacitors since the beginning of 1972 consists primarily of the lower chlorinated fractions, which are more readily biodegradable in the environment.

8. No suggestions at this time. It is my personal impression that the small amounts of PCBs which could be recovered by decontamination procedures on containers and casings would be unlikely to be justified by the questionable benefits which might be obtained at great expense.

9. The economic impact of marking and disposal regulations can only be judged in the light of the specific proposals. Certainly the major potential impact is in relation to equipment and items already in use. We urge EPA to bear in mind that there are hundreds of millions of small capacitors which contain PCBs now in use; regulations which affect them would inevitably involve an enormous economic burden.

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NRC/h

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