

GENERAL ELECTRIC

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PRODUCT

QUALITY

STAFF

Subject: Effluent Limitations for Items on
Toxic Substances List: Economic
Impact of a Ban on PCB

November 21, 1973

Dr. Martha Sager
Chairman, Effluent Standards
and Water Quality Information
Advisory Committee
Environmental Protection Agency
Room 821, Crystal Mall, Bldg. #2
Washington, D. C. 20460

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E. L. SIMONS

Dear Dr. Sager:

With reference to your forthcoming meeting (38FR30577) and pursuant to our understanding that the Committee has expressed an interest in knowing the economic impact of a possible ban of polychlorinated biphenyls (or a restriction tantamount to a ban), we have the following comments to offer:

The value of the annual production of PCB transformers in the U.S. is approximately \$45 million and that of capacitors \$140 million. Neither of these figures forms an appropriate base for assessing the socio-economic effect of regulations having the force of a ban on further production. Should such a ban occur in the near future (i.e., within five years) the impact of PCB transformer unavailability would be felt primarily in terms of disruption of building construction, electric distribution, and railroad equipment projects; and interruption of the supply of PCB capacitors would impact most heavily on the electrical supply situation, exacerbating the "energy crisis."

Most PCB transformers are installed in industrial, commercial, and residential substation applications. A considerable number are installed on electric railway passenger commuter cars serving major metropolitan areas. In all applications, these transformers distribute electric power reliably without risk of fire and explosion, and in compliance with specific laws, codes, and insurance restrictions mandating non-flammable liquid content. There is no readily available alternative for many applications where construction is under way or plans are complete. As much as \$1 billion of construction projects could be seriously delayed, involving schools, factories, office buildings, apartment houses, and commuter trains.

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Dr. Martha Sager

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The PCB capacitors produced in the U.S. annually have a major effect in reducing the electric current which would otherwise have to be generated to serve industrial and public needs. The saving may be approximated by summing up the incremental cost of oversize generators and that portion of transmission and distribution system equipment which is thermally limited. Equipment in these classes, corresponding to the 44 million kilovars of new capacitors installed annually, has a value of approximately \$1 billion. A forced conversion to a non-PCB capacitor would be hampered by shortages of basic capacitor materials and factory production capability, thus placing in jeopardy about half of this annual saving. Additionally, there would be serious dislocations in the lighting and air-conditioning industries due to shortages and mismatches of capacitors required in those systems.

The enclosed paper, "The Role of Polychlorinated Biphenyls in Electrical Equipment", February 4, 1972, was prepared originally for the Office of Science and Technology and is included here for further information on the economic value of these devices. In addition, we have updated the information about capacitors and addressed ourselves specifically to the consequences of unavailability of PCB capacitors in the enclosed new study entitled, "The Impact of a 'Ban' on the Use of PCB in Capacitors," November 19, 1973.

Important as are economic considerations, we feel that the case for continued use of PCB's in capacitors and transformers rests less on these factors than upon the lack of substantiated need for any tighter constraints on the handling of these materials than those already in use or assumed as goals by the electrical industry. These aspects are discussed in the enclosed letter from Dr. Simons of General Electric to Dr. Thompson of E.P.A., commenting upon toxic pollutant effluent standards (reference, 38FR21342).

We hope this discussion will be of use to your committee.

Very truly yours,



James S. Nelson, Consultant-
Product Environmental Compatibility

JSN:ev
Enclosures

cc: Dr. C. Hugh Thompson
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