ELECTRONIC INDUSTRIES ASSOCIATION

2001 EYE STREET, N. W.
WASHINGTON, D. C. 20006

858-2200

V. J. ADDUCI
PRESIDENT

June 25, 1975

The Honorable Russell Train, Administrator
Environmental Protection Agency
401 M St., S.W.
Washington, D.C. 20460

Dear Mr. Train:

On behalf of the Electronic Industries Association, I am submitting to you herewith a statement which was approved by our Board of Governors at its recent meeting expressing grave concern over the proposed toxic pollutant effluent discharge standards for polychlorinated biphenyls (PCB) currently under consideration by EPA.

While members of the electronic industries, and particularly the manufacturers of capacitors using PCB, share your concern over the need to protect our environment, toxic pollutant discharge standards currently under consideration are so unreasonably stringent as to threaten the existance of a vital segment of American industry.

Briefly, our position is this.

Since the early 1970s when scientific investigation indicated that PCBs presented some hazard in the environment, capacitor manufacturers using this material have expended considerable money and effort to reduce discharge levels. At present there are 14 companies with 16 plants using PCB for capacitor manufacturing and in total their PCB daily discharge is less than 5 kg, 0.014 percent of daily usage. These companies are widely dispersed geographically.

Since late 1972 the only U.S. manufacturer of PCB has limited its sales to manufacturers of capacitors and power transformers where the unique properties of this material requires its use. The formulation currently available has been reduced in chlorine content and is much more biodegradable than the PCB

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material available in the past to a wide range of users. Capacitors and transformers are closed systems and there is only a small amount of material which escapes during the manufacturing process.

Due to the wide use of PCB in the past, much of it in open systems and with a high chlorine content, this material is found today in a number of water bodies. In formulating its discharge standards, EPA must recognize that background levels do exist and take them into consideration in establishing its requirements.

If the PCB discharge standards currently under consideration are promulgated, it is highly unlikely that they can be met by the capacitor and power transformer industries. If industry is forced by EPA to discontinue production of these items using PCB, there will be a very substantial inflationary impact on the cost of generating and distributing electrical energy. Fuel requirements for electrical generation also will be increased substantially.

EIA strongly urges that in the promulgation of toxic pollutant discharge standards for PCB it consider carefully the enclosed statement and recognize the current limited use of this material; its existance in many water systems; the biodegradable nature of the material presently in use; the very limited discharge of this material, and the severe impact on the economy and fuel requirements of this nation which could result if EPA standards force discontinuation of the manufacture of capacitors and transformers using PCB.

Very truly yours,

V. J. Adduci

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Statement of

Electronic Industries Association

to

Environmental Protection Agency

Concerning

Proposed Toxic Pollutant Effluent Standards for

Polychlorinated Biphenyls (PCB)

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This statement is presented on behalf of the Electronic Industries Association (EIA), the national association for the electronic industries. EIA includes among its membership not only a large number of component manufacturers but also the users of these components in a broad range of consumer electronic products, military systems and equipment, communications and industrial products.

As spokesman for both producers and users of capacitors impregnated with polychlorianted biphenyls (PCBs), EIA believes that EPA's proposed discharge standards for PCBs are detrimental to the welfare of not only a broad spectrum of its membership but also to that of other elements of society.

These proposals, as reflected in the draft Advance Notice of Proposed Rulemaking (ANPR) dated December 19, 1974 and the draft Basis and Purpose Document, dated April 3, 1975, could result in effluent standards that are unnecessarily stringent, practicably unattainable and legally indefensible.

We respectfully request that your Agency give serious consideration to the following:

. The EPA proposals are invalid; that is, they are not based upon consideration of those factors enumerated in section 307 (a) of the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) and are, therefore, inconsistent with Congressional intent.

. Due to the existence of over 200 variations of PCBs with differing toxicological and biodegradation characteristics, these compounds cannot, with any scientific justification, be made the subject of a single standard.

. Proposed alternative impregnating fluids are not fire retardant and present a risk in safety and reliability.

. EPA's proposals could effectivaly halt the manufacture of PCB-impregnated transformers and capacitors. This, in turn, could require the expenditure of $500 million a year in additional electrical equipment and the consumption of 35 million more barrels of oil per year to produce the increased electrical energy needed.

. Only 0.014% of the approximately 36,000 kg (79,000 lbs.) of PCB used daily by the capacitor industry are discharged to water effluent; this small amount is only 4.89 kg (10.7 lbs.) per day from the combined total of 16 plants in the industry.

. Release of PCBs into the environment is a significantly decreasing phenomenon.

. Control over PCBs now in the ground, waterways, and drain pipes (background) is not practicable in most instances.

EIA PROPOSAL

The Electronic Industries Association suggests the above concerns be reflected in the next draft ANPR as follows:

. EPA should begin to develop acute and chronic standards that adequately

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USAGE

In the past, PCBs have been used in (1) numerous open applications (including paints, specialty inks, plastics, and paper coatings), (2) nominally closed applications (including working fluid in hydraulic or heat transfer systems), and (3) closed electrical systems (capacitors and transformers). However, since late 1972 Monsanto has restricted sales of PCBs to uses only in the closed electrical system category as a dielectric/insulating fluid.

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, minimizing risk of fire and explosion and assuring 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.

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 incremential 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.*

CONTROL PROCEDURES

A number of the capacitor manufacturing operations in existence before 1970 had floor drains with a labyrinth of uncharted pipes and connections under the floor. Spillages were often flushed into these floor drains, coating the drainage lines with Aroclor. In 1970, the capacitor industry became aware of the possible environmental effects of PCBs and began developing procedures for handling and disposing of waste containing PCBs. However, accumulations from past practices are now exiting from the underground drain systems through a slow leaching process.

By 1971, and at Monsanto's suggestion, the capacitor and transformer industries formed a Standards Committee. The members of the Committee include representatives from Monsanto, the two affected industries, EPA, Dept. of Army, Dept. of Agriculture, the Tennessee Valley Authority, Rural Electrification Administration, the National Bureau of Standards, and the General Services Administration. Also represented were the Certified Ballasts Manufacturers Association, the Electronic Industries Association, the Institute of Electrical and Electronic Engineers, and the National Electrical Manufacturers Association.

* These projections and other economic assertions herein, are based upon prior testimony of George Farnsworth, Jr. in FWPCA 307 (Docket No. 1) and upon materials submitted to the Effluent Standards & Water Quality Information Advisory Committee by the General Electric Company on 21 November 1973.

reflect the factors specified in Section 307 (a) (2). Much of this work could follow the guidelines of Section F (3) of the December, 1974 ANPR and be carried out through the co-operative efforts of the following: EPA, Congress, State Agencies, affected industrial discharges, and other interested parties.

. Retain the concepts of Section F (2) and (3) that allow flexibility in the implementation of and deviation from the standards. If the standards have been developed as suggested above, the magnitude of any deviations should not be great, and the supporting documentation could justifiably be the responsibility of the affected discharger.

.PCBs should be defined to include only those materials arising out of and discharge as a result of operations conducted after the effective date of the EPA Regulations governing these substances. Residual PCBs are thereby excluded.

. In line with our argument that more than one standard should be established for PCBs, we recommend that one such standard should specifically cover PCBs containing 99% of homologs that have only 1 to 4 chlorine atoms per biphenyl molecule.

. Retain EPA's previously proposed acute limit of 280 micrograms per liter for discharges to fresh water until a new and technically justified standard is derived pursuant to requirements of Section 307 (a) (2).

. Implement the recommended modifications to PCB analytical procedure which are outlined later in this statement.

. Ban the importation and use of PCBs which contain 8% or more of homologs that have 7 or more atoms of chlorine per biphenyl molecule. This would eliminate the use of the least biodegradable PCBs.

EIA believes the above recommendations are supported by the material which follows.

DESCRIPTION OF PCBs

PCB are manufactured in the United States today by Monsanto Company under the trade name "Aroclor". As a result, the product is not a single compound, but 210 possible homologs and isomers resulting from the addition of 0 to 10 chlorine atoms per biphenyl group. Although their chemical characteristics depend upon the degree of chlorination, they are in general, electrically, thermally and chemically stable and fire resistant.

Initially, the mixtures of PCBs which were generally used in electrical equipment contained the higher chlorinated biphenyls. However, with heightened awareness of the potential environmental effects of these higher chlorinated biphenyls, the manufacturer developed Aroclor 1016 for the capacitor industry. This is composed of approximately 78% by weight (w/w) of the homologs of 1-3 chlorine atoms per biphenyl molecule and approximately 21% (w/w) of the homologs of 4 chlorine atoms per biphenyl. Currently, the capacitor industry is using this Aroclor.

Under the auspices of the American National Standards Institute, that Committee published PCB handling and disposal guidelines (ANSI-C107.1-1974) in the fall of 1972. That document establishes procedures for shipping, general handling techniques, manufacturing housekeeping and proper disposals of liquid and solid materials containing PCBs. These procedures are presently in use throughout the capacitor industry.

As a result Aroclor is under the closest practicable control from the time it leaves Monsanto in sealed tanks or barrels to the time its waste is incinerated or landfilled in approved facilities. Its use and recovery in capacitor plants is in closed piping and processing systems. Separate collection and spill containment systems to deal with waste also are in use.

The capacitor manufacturers have sought testing assistance from Monsanto to assess the quantity and quality of PCB discharge. That company recommended using an established ASTM method, D-3304, which is now being employed on a periodic basis by individual companies in the industry.

COMMENTS ON EPA METHODOLOGY

EPA apparently intends to use the same basic formula as was proposed on December 27, 1973 (38 Federal Register 35395); i.e.: to calculate a chronic limit, one needs to know only the flow of the receiving stream. There is no provision for consideration of the location and properties of the stream, or other factors. We believe this approach is inconsistent with the requirements of Section 307 (a) (2) of PL 92-500.

It does appear that EPA is now recognizing the importance of local conditions. In Subpart I, Section F of the draft ANPR, EPA has included provisions that:

. Recognize the possible technical infeasibility of full compliance within one year of promulgation. Section F (2) (b).

. Set forth guidelines under which the Regional Administrator may, on a case-by-case basis, and for "substantial and documented technical reasons... deviate from the standards proposed in this subpart." Section F (3).

However, the guidelines of Section F (3) of the ANPR, although proposed as the basis for granting a deviation from standards, really set forth elements of a framework within which the agency should develop standards that adequately reflect the factors specified in Section 307 (a) (2) of the law. As now proposed, the ANPR continues to use an inadequate methodology to derive standards, and then throws the entire burden of proof upon the discharger to show why the Regional Administrator should deviate from these improperly derived standards.

It is our understanding that EPA intends to propose an acute limit of 10 micrograms per liter for discharges to fresh and salt water. This would represent a significant and unjustifiable departure from the earlier proposed limits of 280 (fresh water) and 100 (salt water) micrograms per liter.

The latest proposal, like earlier versions, does not derive a standard from review of the factors mandated by Section 307 (a) (2). Rather, the proposal appears to reflect selective use of only the most damaging toxicity data in the literature, without considering the varing toxicity of PCB homologs, without

considering the presence and importance of the test organism in a given waterway, and without considering a myriad of variables that impact on the toxicity of any substance in an aquatic environment.

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In the 1974 hearings Dr. Gerald Lauer, testifying on behalf of the General Electric Company, noted the following:

"The acute toxicity of PCBs is too variable to justify across-the board standards.

"The toxicity of a pollutant varies from species to species, for different life stages of the same species, and depends on a host of variables including the chemical quality of the receiving water, water temperature, duration of exposure, the fate and physical-chemical state of the pollutant in the receiving water, the ability of mobile organisms to sense and avoid pollutants, the presence of other pollutants, etc. The complexity of influences requires that effects of pollutants be evaluated on a case-by-case basis, and not by the across-the-board approach used by EPA.

"The toxicity data for PCBs clearly demonstrate the impracticality of selecting a single concentration limit for an across-the-board type standards as proposed by EPA. Values for a single homolog frequently vary by as much as 100 to 1000, and for Aroclor 1242, there is a difference of over 100,000 between the lowest and highest LC_{50} value.

"Differences of this magnitude exist even for the same species and Aroclor (e.g. bluegill sunfish and Aroclor 1242) under different conditions of exposure.

"Moreover, there is no justification evident in the existing data for assigning the same toxicity criteria to all 210 homologs and isomers of PCBs, as in effect, was done by the EPA in proposing a single numerical concentration limit.

"Across-the-board standards such as those proposed by EPA do not contain sufficient flexibility to be responsive to these many variables."

CONCERN OVER EPA DEFINITION OF TOXIC POLLUTANTS

The definitions proposed by EPA for all toxic pollutants but cyanide and PCBs explicitly refer to specific elements or chemical compounds. For PCBs, however, the effluent limitations are placed upon an entire class of chemicals whose individual members have widely differing combinations of physical, chemical and biological properties. We believe there is neither chemical nor biological justification for that treatment.

The only commercial products used by the electrical equipment industry in the United States are Aroclor 1016, 1221, 1242 and 1254. Each one can be characterized by a pattern of elution peaks from a gas chromatographic column on which a sample of the PCB preparation has been adsorbed. The relative retention times of these peaks, compared to a standard material, can be identified with different levels of chlorination. These chromatograms show that 99% (w/w) of Aroclor 1016 consists of homologs with 4 or less chlorine atoms per biphenyl and that more than 78% (w/w) of Aroclor 1254 consists of homologs with 5 or more chlorine atoms per biphenyl.

* Then Senior Research Scientist and Assistant Director of the Institute of Environmental Medicine, New York University Medical Center.

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Published data indicates that the lower chlorinated homologs are less persistent and more rapidly metabolized or biodegraded than the higher chlorinated homologs. PCBs found in the environment and in wild life are almost always the higher chlorinated homologs, whereas production and use of the lower chlorinated homologs have always exceeded that of the higher chlorinated homologs.

As pointed out earlier, the draft Basis and Purpose Document relies in major part on Aroclor 1254 and on extreme bioaccumulation factors plus an additional safety factor.

In order for Aroclor 1016 to present a chromatogram equivalent to Aroclor 1254 it would require that almost 98% of the former be degraded. On a weight basis this means that for every 100 grams of Aroclor 1016 that might escape into the environment, only 2 grams of a pseudo-Arclor 1254 would be available for concentration through the ecosystem. This would mean an additional factor of 50 is imposed upon the users of Aroclor 1016. Furthermore, the toxicity of Aroclor 1254 to the sensitive fry of sheepshead minnows in greater than for Aroclor 1016 by a factor of 100 (Hansen et al., 1974). This clearly indicates that effluent limitation for PCBs should be established for each commercial mixture used in the electrical industry.

PCB ANALYTICAL PROCEDURE

For those circumstances when an effluent contains PCBs and organochlorine pesticides at significant concentrations and both must be measured, the EPA procedure with minor modification is satisfactory. However, we feel that an abbreviated and less costly procedure is needed for routine PCB monitoring at facilities related to the manufacture and repair of transformers and capacitors.

These sources typically have a very low ratio of pesticides to PCBs in their effluents. Potential interference likely to be in these effluents are not pesticides and are not materials classified as toxic pollutants. Therefore, we propose that these facilities be permitted to use a straight-forward procedure designed to measure only PCBs.

Such a method is ASTM Method D-3304, "Analysis of Environmental Materials for Polychlorinated Biphenyl". This same procedure also is recognized by the American National Standards Institute (ANSI) and appears as Appendix B in "Guidelines for Handling and Disposal of Capacitor-and Transformer-Grade Askarels Containing Polychlorinated Biphenyls", ANSI-C107.1-1974. This procedure was developed specifically for PCBs and eliminates interferences by a simple chemical treatment. It differs in this respect from the EPA procedure, which contains several elaborate separation schemes for pesticides. Moreover, without sacrificing analytical accuracy, cost savings of at least 50% would be realized.

In this context, the following modifications of the EPA procedure for pesticides and PCBs are recommended:

. When the observed PCB level is significantly above laboratory and reagent background, background subtraction should be permitted.

. Since acetonitrile partitioning has shown that PCB as well as pesticides are not quantitatively recovered, recoveries of various PCB product mixtures during this partitioning should be carefully examined.

. Sampling and sample storage techniques should be included or specifically referenced.

. Total peak areas should be used for quantitation of each PCB product mixture; this technique is equally accurate and much more rapid than using peak weight factors for calculating effluent concentrations.

. Chromatograms of Aroclor 1016 should be included with reference chromatograms of the other PCB products.

. The method should be subjected to extensive interlaboratory testing to determine reliability and reproducibility.

ECONOMIC IMPACT

As indicated earlier, EPA's proposal could amount to an effective ban on the manufacture of PCB capacitors. This contrasts with EPA's unjustified forecast, in February 1974, that the economic impact "is expected to be monor".

On the first day of the 1974 hearings, EPA counsel assured industry that economic impact was relevant to the establishment of the PCB standards. Yet the most recent (acute) limit is even more stringent than the original proposal, and increases the likelihood of cessation of manufacture of PCB transformers and capacitors.

Again, let us briefly describe the social role of PCB-filled power and industrial capacitors. They form the dominant portion of the served capacitor market. They are significantly smaller, more reliable, more durable, electrically more efficient and more fire retardent than non-PCB oil-filled capacitors. As a result, PCB capacitors presently represent more than 90% of the power and industrial capacitors made today. The annual value of the production of PCB capacitors is approximately $140 million.

PCB capacitors improve the power factor of the electrical systems or equipment to which they are connected. This means that they enable a higher portion of the current generated to do useful work than would otherwise be the case. Thus, the 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. If the capacitors were not available, generators would have to be built in larger sizes to handle larger currents.

Similarly, other portions of the transmission and distribution system contain components whose size is determined by the total current passing through them, not merely the portion of the current useful in doing the work of the end application. If system power factors are lower, these components, as well as the generators, must be built larger. Industry figures indicate that approximately 44 million kilovars of new capacitors are installed annually. If none of these capacitors were available, the increased cost of generators and transformers and other equipment required to handle the resulting higher system currents would amount to approximately $1 billion per year.

Non-PCB oil-impregnated designs could be substituted for a portion of the requirement. However, because of the lower design efficiency of such capacitors, the

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output of the industry would, in normal times, be limited by the scarcity of the insulating paper, plastic film, aluminum foil, and other materials required in their manufacturing. We estimate that the industry could only produce about half of the required kilovars in non-PCB designs, thus jeopardizing about half of the billion dollars per year in equipment costs now being saved by the use of the PCB capacitors.

In addition to the equipment costs, there would be important energy losses. It has been calculated that the difference in energy losses between today's system and a system without capacitors is approximately 42 million kilowatt hours per year. If these losses are made up by burning more fuel oil, it will take an additional 68 million barrels per year. At 1970 rates of consumption, this equals the oil usage of the entire country for five days. Here again, the actual loss would be less than this figure, in an amount determined by the industry's ability to supply substitute non-PCB capacitors, and the ingenuity of electric utility engineers in changing system designs to meet the new conditions.

Additionally, there would be serious dislocations in the lighting and air-conditioning industries due to shortage of capacitors for ballasting fluorescent lights, and for starting and running electric motors. There would be difficulties in making substitutions due to size mismatches, code requirements, the flammability of substitutes, and the like.

CONCLUSION

EIA appreciates the complexity of the many problems facing EPA. It is not our intent to add to the weight of these problems. However, we feel that we must point out the difficulties of complying with the proposed requirements seen to date and the economic impact that a ban would have on both the capacitor industry and U.S. industry. We believe it quite important that EPA consider the very successful methods of control now being employed by the capacitor industry and the high biodegradability of the Aroclor 1016 now being employed by this group.

We thank you for giving this lengthy document your attention.

ELECTRONIC INDUSTRIES ASSOCIATION

2001 EYE STREET, N. W.
WASHINGTON, D. C. 20006

TELEPHONE (202) 659-2700
CABLES: ELECTRON WASHINGTON D.C.

July 2, 1975

V. J. ADDUCI
PRESIDENT

The Honorable James Lynn, Director
Office of Management and Budget
Executive Office Building
17th & Pennsylvania Ave., N.W.
Washington, D.C. 20503

Dear Mr. Lynn:

On behalf of the Electronic Industries Association, I would like to call to your attention a pending proposal of the Environmental Protection Agency which can have a serious impact not only on a segment of American industry but also on consumers and producers of electrical energy.

We refer specifically to the toxic pollutant discharge standards being considered by EPA for polychlorinated biphenyls (PCB), a material vital to the production of power correction capacitors used for the more efficient generation and distribution of electrical energy. These capacitors also are a vital component of the more efficient types of lighting - flourescent, mercury vapor and sodium - and also are incorporated in the electrical circuits of air conditioners, refrigerators, etc., for the more efficient use of electricity.

The salient points of EIA concern are outlined below. It is urged however, that OMB review in detail the enclosed statement to EPA and initiate a thorough inflationary and economic impact study of this proposal in keeping with the intent of Executive Order 11821 and OMB Circular No. A-107.

There are only 16 plants in this country which manufacture capacitors using PCB. They are widely dispursed geographically and in total discharge less than 5 kg of PCB daily, 0.014 percent of total daily usage.

There are over 200 variations of PCBs with different toxicological and biodegradation characteristics. It is scientifically unsound to make all compounds the subject of a single standard as proposed by EPA.

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The only U. S. manufacturer of PCB has, since late 1972, limited sales only to manufacturers of capacitors and transformers where the unique properties of this material virtually mandate its use.

The PCB material used by the capacitor industry is known as Aroclor 1016. It is more biodegradable than formulations widely used by a number of industries prior to late 1972.

Aroclor 1016 now is used only in closed electrical systems with less than 5 kg per day being discharged into navigable waters as a result of the capacitor manufacturing process.

The EPA proposed discharge standards are unnecessary and unreasonable in the light of the biodegradable nature of the formulation currently being used, and the low level of discharge.

Since industry became aware of the potential hazards of PCB it has initiated a number of costly procedures looking toward the elimination of water discharges. Despite these efforts, it is highly unlikely that the industry can meet the proposed requirements, particularly if background levels are not discounted.

If this segment of the capacitor industry is eliminated by EPA unachievable requirements, the inflationary and energy consumption impact will be very substantial. Production of the PCB capacitor industry currently is about $140 million annually.

To overcome the electrical generation and distribution efficiencies made possible by the use of PCB capacitors, the additional consumption of fuel oil is estimated at 68 million barrels per year.

The additional cost of electrical generation and distribution equipment alone is estimated at $1 billion per year.

Your investigation of and favorable reaction to the facts presented will be sincerely appreciated.

Very truly yours,

V. J. Adduci

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ELECTRONIC INDUSTRIES ASSOCIATION

2001 EYE STREET, N. W.
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TELEPHONE (202) 659-2700
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July 2, 1975

V. J. ADDUCI
PRESIDENT

The Honorable Frank Zarb, Administrator
Federal Energy Administration
12th & Pennsylvania Ave., N.W.
Washington, D. C.

Dear Mr. Zarb:

On behalf of the Electronic Industries Association, I would like to call to your attention a pending proposal of the Environmental Protection Agency which can have a serious impact on the fuel requirements of this nation for the generation and distribution of electrical energy.

We refer specifically to the toxic pollutant discharge standards being considered by EPA for polychlorinated biphenyls (PCB), a material vital to the production of power correction capacitors used for the more efficient generation and distribution of electrical energy. These capacitors also are a vital component of the more efficient types of lighting - flourescent, mercury vapor and sodium - and also are incorporated in the electrical circuits of air conditioners, refrigerators, etc., for the more efficient use of electricity.

The salient points of EIA concern are outlined below. It is urged, however, that your agency review in detail the enclosed statement to EPA and initiate your own study of the economic and energy consumption consequences of the possible elimination of the production of power correction capacitors and transformers using PCBs.

There are only 16 plants in this country which manufacture capacitors using PCB. They are widely dispursed geographically and in total discharge less than 5 kg of PCB daily, 0.014 percent of total daily usage.

There are over 200 variations of PCBs with different toxicological and biodegradation characteristics. It is scientifically unsound to make all compounds the subject of a single standard as proposed by EPA.

MONS 093451

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Aroclor 1016 now is used only in closed electrical systems with less than 5 kg per day being discharged into navigable waters as a result of the capacitor manufacturing process.

The EPA proposed discharge standards are unnecessary and unreasonable in the light of the biodegradable nature of the formulation currently being used, and the low level of discharge.

Since industry became aware of the potential hazards of PCB it has initiated a number of costly procedures looking toward the elimination of water discharges. Despite these efforts, it is highly unlikely that the industry can meet the proposed requirements, particularly if background levels are not discounted.

If this segment of the capacitor industry is eliminated by EPA unachievable requirements, the inflationary and energy consumption impact will be very substantial. Production of the PCB capacitor industry currently is about $140 million annually.

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V. J. Adduci

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ELECTRONIC INDUSTRIES ASSOCIATION

2001 EYE STREET, N. W.
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TELEPHONE (202) 659-2300
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July 2, 1975

V. J. ADDUCI
PRESIDENT

The Honorable Rogers C.B. Morton, Secretary
U. S. Department of Commerce
Washington, D.C. 20230

Dear Mr. Morton:

On behalf of the Electronic Industries Association I would like to call to your attention a proposed action of the Environmental Protection Agency which can have a serious impact not only on a segment of American industry and its employes but also on consumers and producers of electrical energy. This proposed EPA action also could jeopardize the Commerce Departments' Voluntary Program for Appliance Efficiency which was initiated at the request of the President.

We refer specifically to the toxic pollutant discharge standards being considered by EPA for polychlorinated biphenyls (PCB), a material vital to the production of power correction capacitors used for the more efficient generation and distribution of electrical energy. These capacitors also are a vital component of the more efficient types of lighting - flourescent, mercury vapor and sodium - and also are incorporated in the electrical circuits of air conditioners, refrigerators, etc., for the more efficient use of electricity.

The salient points of EIA concern are outlined below. It is urged, however, that the Department of Commerce review in detail the enclosed statement to EPA so it will be familiar with this area of industry concern with the requirements and implementation of the Federal Water Polution Control Act (Public Law 92-500).

There are only 16 plants in this country which manufacture capacitors using PCB. They are widely dispursed geographically and in total discharge less than 5 kg of PCB daily, 0.014 percent of total daily usage.

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To overcome the electrical generation and distribution efficiencies made possible by the use of PCB capacitors, the additional consumption of fuel oil is estimated at 68 million barrels per year.

The additional cost of electrical generation and distribution equipment alone is estimated at $1 billion per year.

Your investigation of and favorable reaction to the facts presented will be sincerely appreciated.

Very truly yours,

V. J. Adduci

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ELECTRONIC INDUSTRIES ASSOCIATION

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TELEPHONE (202) 659-2200
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July 2, 1975

V. J. ADDUCI
PRESIDENT

Honorable Robert E. Jones, Chairman
House Committee on Public Works and Transportation
Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Jones:

On behalf of the Electronic Industries Association, I would like to call to your attention a pending proposal of the Environmental Protection Agency which can have a serious impact not only on a segment of American industry and its employes but also on consumers and producers of electrical energy.

We refer specifically to the toxic pollutant discharge standards being considered by EPA for polychlorinated biphenyls (PCB), a material vital to the production of power correction capacitors used for the more efficient generation and distribution of electrical energy. These capacitors also are a vital component of the more efficient types of lighting - flourescent, mercury vapor and sodium - and also are incorporated in the electrical circuits of air conditioners, refrigerators, etc., for the more efficient use of electricity.

The salient points of EIA concern are outlined below. It is urged, however, that you review in detail the enclosed statement to EPA in view of the interest of your Committee on Public Works and Transportation in the impact and implementation of the Federal Water Pollution Control Act (Public Law 92-500).

There are only 16 plants in this country which manufacture capacitors using PCB. They are widely dispursed geographically and in total discharge less than 5 kg of PCB daily, 0.014 percent of total daily usage.

There are over 200 variations of PCBs with different toxicological and biodegradation characteristics. It is scientifically unsound to make all compounds the subject of a single standard as proposed by EPA.

MONS 093455

The only U. S. manufacturer of PCB has, since late 1972, limited sales only to manufacturers of capacitors and transformers where the unique properties of this material virtually mandate its use.

The PCB material used by the capacitor industry is known as Aroclor 1016. It is more biodegradable than formulations widely used by a number of industries prior to late 1972.

Aroclor 1016 now is used only in closed electrical systems with less than 5 kg per day being discharged into navigable waters as a result of the capacitor manufacturing process.

The EPA proposed discharge standards are unnecessary and unreasonable in the light of the biodegradable nature of the formulation currently being used, and the low level of discharge.

Since industry became aware of the potential hazards of PCB it has initiated a number of costly procedures looking toward the elimination of water discharges. Despite these efforts, it is highly unlikely that the industry can meet the proposed requirements, particularly if background levels are not discounted.

If this segment of the capacitor industry is eliminated by EPA unachievable requirements, the inflationary and energy consumption impact will be very substantial. Production of the PCB capacitor industry currently is about $140 million annually.

To overcome the electrical generation and distribution efficiencies made possible by the use of PCB capacitors, the additional consumption of fuel oil is estimated at 68 million barrels per year.

The additional cost of electrical generation and distribution equipment alone is estimated at $1 billion per year.

Your investigation of and favorable reaction to the facts presented will be sincerely appreciated.

Very truly yours,

V. J. Adduci

MONS 093456

ELECTRONIC INDUSTRIES ASSOCIATION

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July 2, 1975

V. J. ADDUCI
PRESIDENT

Honorable Jim Wright, Chairman
Subcommittee on Investigation and Review
House Committee on Public Works and Transportation
Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Wright:

On behalf of the Electronic Industries Association, I would like to call to your attention a pending proposal of the Environmental Protection Agency which can have a serious impact not only on a segment of American industry and its employes but also on consumers and producers of electrical energy.

We refer specifically to the toxic pollutant discharge standards being considered by EPA for polychlorinated biphenyls (PCB), a material vital to the production of power correction capacitors used for the more efficient generation and distribution of electrical energy. These capacitors also are a vital component of the more efficient types of lighting - flourescent, mercury vapor and sodium - and also are incorporated in the electrical circuits of air conditioners, refrigerators, etc., for the more efficient use of electricity.

The salient points of EIA concern are outlined below. It is urged, however, that you review in detail the enclosed statement to EPA in view of the interest of your Subcommittee on Investigations and Review of the House Committee on Public Works and Transportation in the impact and implementation of the Federal Water Pollution Control Act (Public Law 92-500).

> There are only 16 plants in this country which manufacture capacitors using PCB. They are widely dispursed geographically and in total discharge less than 5 kg of PCB daily, 0.014 percent of total daily usage.
>
> There are over 200 variations of PCBs with different toxicological and biodegradation characteristics. It is scientifically unsound to make all compounds the subject of a single standard as proposed by EPA.

MONS 093457

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Your investigation of and favorable reaction to the facts presented will be sincerely appreciated.

Very truly yours,

V. J. Adduci

MONS 093458