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December 12, 1988

Mr. Roger Strelow
Vice President - Corporate
Environmental Program
General Electric Company
3135 Easton Turnpike
Fairfield, CT 06431

Re: Indiana University

Dear Mr. Strelow:

I have been asked by Indiana University ["University"] to respond to your letter of October 20, 1988, as well as your proposals of November 14, 1988, addressed to the resolution of this dispute.

The gist of your letter, as far as we can determine, is twofold.

First, you rely on a rather stilted interpretation of the 1985 EPA PCB Transformer Fire Rule ["Rule"]^{1/} that is premised on a distinction between radial and network PCB transformers. The balance of this contention concludes with the observation that PCB transformers do not present an unreasonable risk to the public.

Secondly, you indicate that our intended legal action would be "invalid" for a variety of reasons. This contention concludes on the hard note that if the action is filed, the prospective defendants will seek "sanctions".

May I suggest that this type of threat is unbecoming and tends to demean the negotiation process. For our part, we will raise the tenor of these discussions a few clicks and hope that you will do likewise. The issues under discussion are more aptly aired in a less shrill environment. I am sure you will agree.

^{1/} Regrettably, and quite unexplainedly, you fail to cite to or even refer to the subsequent amendments to the 1985 Rule. Those amendments, to be discussed momentarily, basically debunk your interpretation of the PCB Transformer Rules. The amendments were published in 1987 [52 Fed. Reg. 31738] and 1988 [53 Fed. Reg. 27322]. We highly recommend a review of these amendments. They are dispositive of the issues under discussion.

I. THE NETWORK - RADIAL DISTINCTION

The crux of your contention is that since all of the PCB transformers owned by the University are radial transformers, the University has no option but to enhance those transformers and leave them in place. Your contention continues to the effect that if the University removes and replaces those PCB transformers, you and your prospective co-defendants are not liable for these costs because the regulations did not give the University the option to pursue removal and replacement.

We followed the suggestion in your letter. We have spoken to knowledgeable professionals at the United States Environmental Protection Agency ["EPA"], several utility companies in the country, as well as, several Big Ten Universities, concerning your interpretation of the EPA regulations.

I must tell you that you stand alone in your interpretation of the regulations. These knowledgeable professionals uniformly, and without exception, rejected your understanding of the regulations as unfounded in either law, fact or the policy of the EPA. The comments we have received, unfortunately, assessed your view of the regulations as, "simply ridiculous" to "astounding".

In the sections below, we will summarize some, but not all, of the facts as to why your interpretation of the regulations has been so uniformly rejected.

A. THE DISTINCTION IS CONTRARY
TO THE POLICIES OF EPA
MANDATING REMOVAL OF PCB
TRANSFORMERS

On July 19, 1988, EPA published its latest amendment to the PCB Transformers Fire Rule ["Rule"] 53 Fed. Reg. 27322; and announced this policy;

"EPA continues to prefer the regulatory option of transformer removal because it completely eliminates PCB Transformer fire-related risk, as well as the risks posed by leaks and spills of PCBs from these transformers." [Id.27326]
(Emphasis added)

Indeed, the EPA's policy of giving the University the option to remove the PCB transformers at issue (and thus comply with the Rule by 1990) was the announced policy of EPA in 1987.

On August 21, 1987, EPA published a further amendment to the Rule, 52 Fed. Reg. 31738, announcing this policy:

"EPA prefers the regulatory option of removal because it completely eliminates PCB transformers fire-related risks (as well as risks posed by leaks and spills of PCBs from these transformers). EPA also recognized, however, that PCB transformer removal is costly. In providing owners the option of risk reduction in the short term or removal on a slightly longer schedule, EPA has attempted to create an incentive for removal." [Id. 31743-31744]^{2/} (Emphasis added)

Indeed, even in the original 1985 Rule, EPA announced its preference for removal of PCB transformers as the best method of complying with the Rule:

"The removal or retrofill of PCB transformers is both the most effective, and, most costly measure for reducing the frequency of serious PCB transformers fires. This measure, once implemented, gives the greatest assurance that PCB transformer fires will be avoided, regardless of initiating cause." [50 Fed.Reg.29170 at 29188]

* * * *

^{2/} It should be noted that EPA treats radial transformers and lower secondary voltage network transformers exactly alike for the purpose of regulatory compliance. 52 Fed.Reg. 31743,31746 (1987); 53 Fed.Reg. 27329 (1988).

"The benefit of removing commercial PCB transformers from use is the complete assurance that PCB transformer fires will no longer occur in or near commercial buildings..PCB transformer fires in or near commercial buildings pose particularly high risks to human health...." [Id. 29193]

* * * *

"Further, by requiring electrical protection for commercial PCB transformers, EPA implicitly allows the replacement of all commercial PCB transformers with substitute equipment---" [Id. 29198] (Emphasis added)

B. ENHANCEMENT OF RADIAL PCB
TRANSFORMERS IS AT BEST
AN UNPROVEN AND UNACCEPTABLE
OPTION FOR COMPLIANCE WITH THE RULE

Enhancement, as suggested in your letter as the University's only option under the Rule (a suggestion we hope is put to rest) would have been unwise and an unacceptable attempt at compliance with the Rule.

In 1987, when EPA was amending the Rule, it candidly admitted that it had seriously underestimated the costs of enhancement to radial transformers as a method of complying with the Rule. [Id. 31743]

On the other hand, the removal option elected by the University provides a "fixed cost" alternative that is not subject to wildly varying cost estimates; and, it is the alternative preferred by the EPA.

More importantly, General Electric's own publication^{3/} on the issue warns that the technology available to comply with the enhancement option is unproven:

^{3/} Roland K. Kump, What's Behind the Real Cost of PCB Transformers (September 1987)

"One possible method of avoiding PCB transformer failures from low current faults would be to use a pressure relief device equipped with contacts which signal the operation of the device. With the addition of the proper circuits and auxiliary relays, this device operation signal would open a circuit breaker or contactor. Temperature sensing devices can also be installed to provide a signal to a disconnect device.

"The elements of the technology are available, although information is lacking on the feasibility and cost of installing such equipment on PCB transformers of varying types, sizes and installation patterns. Also, the general effectiveness of the equipment to accomplish what EPA had in mind is not fully known. After extensive and expensive modifications are made, it's still possible that future restrictions or prohibitions will be added."

Moreover, General Electric recommends that owners of PCB transformers, such as the University, do exactly what the University did and is doing--remove and replace those transformers:

"The retrofit option means replacing the electrical equipment. Retrofit eliminates PCBs, and all the risks and residuals associated with continued ownership.

"Retrofitting offers several advantages, including relief from PCB regulatory requirements, eliminating costs due to a spill, or contamination from a fire and adverse publicity associated with the release of PCBs into the environment. Other benefits may include the opportunity to study the electrical system and make changes to the existing system, which coupled with a new transformer can save energy and/or improve the system's efficiency."

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In light of the foregoing, we hope this issue is put to rest. In sum, the University incurred and will continue to incur costs for removal of PCB transformers, a change-out program mandated by EPA and carried out in conformity with EPA's regulations; and, as General Electric recommended that it be carried out.

C. PCB TRANSFORMERS PRESENT
AN UNREASONABLE RISK
TO THE PUBLIC

You contend, quite remarkably, that:

"...EPA specifically reiterated that
PCB transformers.....do not present
an unreasonable risk to public
health...."

We will address this rather anemic contention in the sections below.

1. PCB'S ARE A HAZARDOUS SUBSTANCE

No one today seriously contends that PCB's are other than a hazardous substance which has seriously impacted the environment and has produced severe adverse health effects in persons exposed to this dangerous chemical.

As you know, PCB was the only chemical that was banned by name in the Toxic Substances Control Act of 1976 (15 USC Sec. 2605(e). ["Act"]

Indeed, Monsanto's own material safety data sheets (for the production of PCB) carefully list the "highly toxic" consequences attributed to exposure to Pyranol (GE's trademarked name for PCBs that it purchased from Monsanto).

Moreover, the courts have specifically found and determined that PCBs are a dangerous hazardous substance.

The polychlorinated biphenyls that are used in electrical transfer insulating fluids, have specifically been held to be hazardous substances in United States v. Ward, 618 F.Supp. 885, 894 (D.C.N.C. 1985):

"PCBs fit into several of these
categories. PCBs have been
designated as hazardous substances

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in the regulations promulgated under Section 311 of the Federal Water Pollution Control Act. 33 U.S.C. Section 1321 (1982); 40 C.F.R. Section 116.4 (1984). PCBs have also been included as toxic water pollutants under the regulations issues pursuant to Section 307 of the Clean Water Act. 33 U.S.C. Section 1317 (1982); 40 C.F.R. Section 129.4 (f) and 401.15(54) (1984). In addition, they are listed as toxic substances under the Toxic Substances Control Act and its regulations. 15 U.S.C. Section 2605 (e); 40 C.F.R. Section 761.1, et seq. (1984). Accordingly, PCBs come under the definition of hazardous substances in CERCLA sections 101 (14) (A), (D) & (f) (1982)."

On March 26, 1976, the Senate debated the Toxic Substances Control Act, including the amendment to the Act that banned the use of PCBs. In introducing the bill, Senator Nelson read a report on PCBs prepared by the Legislative Research Service of the Library of Congress that included the following language:

"The possibility of adverse effects upon human health from PCBs was highlighted in October of 1968. In the Fukuoka in western Japan, accidental contamination by PCBs of edible rice bran oil caused an outbreak of toxic symptoms, the "Yusho" poisoning incident...PCBs have been found, in scientific tests, to cause severe skin and liver problems in humans. University of Wisconsin Medical School researchers, Dr. James R. Allen and Deborah Barsetti have demonstrated that very low PCB levels are dangerous to primates, causing facial swelling, loss of hair, acne lesions within one month, birth defects, miscarriages, stillbirths, and death...There is no dispute over their toxicity to wildlife and to humans."

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More pointedly, on January 14, 1976, the vice-president of Monsanto, Jack Fitzgerald, appeared before Congress to discuss the PCB problem prior to passage of the Act. He said:

"Let me state at the outset that Monsanto agrees whole heartily with EPA's desire to work toward the goal of eventually eliminating all uses of PCBs."

He was followed to the podium on that day by the vice-president of Westinghouse Electric Corporation, D.M. Sauter, who said:

"Westinghouse recognized that environmental effects [of PCB] are one of many elements that affect human safety. The production, use and operation of electrical equipment must not increase the danger to humans."

On that same day General Electric's vice-president, John F. Welch, conceded that GE was, "...the leading industrial user of PCBs in the manufacture of capacitor and transformer products..."; and, the vice-president of McGraw Edison Company, Herbert Appleton, stated:

"We believe there is no question that PCB's eventually must be eliminated from all products going into the marketplace. The only question can be, "When?" No other position is defensible.

"As a major manufacturer of power capacitors, McGraw-Edison Company has recognized the PCB problem. We have a modern plant and control our emissions carefully, but we can't control the ultimate destination of millions of pounds of PCB's shipped in our products, which someday will be entering the environment."

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In sum, nearly everyone agrees that PCBs are a very dangerous and hazardous substance that must be eliminated--there is simply no room for serious argument on that point at this late date.

2. PCB TRANSFORMER FIRES PRESENT AN EXTREME HAZARD TO PUBLIC HEALTH

To suggest that EPA has found that PCB transformers do not present an unreasonable risk to the public is simply disingenuous. That notion is belied by the record, the highlights of which are noted below.

In 1985, when EPA adopted the Rule, it specifically found that PCB transformer fires produced by-products (furans and dioxins) which the EPA found to be, "one of the most toxic substances known to man." [Id. 29174]

EPA continued to find:

"EPA has concluded that exposures to soot from PCB transformer fires have the potential to produce toxicity in the thymus, the hematopoietic system, the salivary gland duct epithelium and possibly, the liver." [Id. 29175]

* * * * *

"A PCB Transformer fire which occurs in or near a commercial building during a period of peak use may expose hundreds to thousands of building occupants to smoke and soot from the fire during the evacuation of the building. The potential for exposures of large numbers of building occupants to this smoke and soot is increased if the transformer involved in a fire is located near building ventilation equipment and ductwork. EPA estimates that evacuation times will be on the order of 6 to 8 minutes, building occupants will be exposed to smoke and soot, primarily through inhalation. Emergency response personnel, unaware that the smoke and soot from the fire may contain PCBs and

toxic products of incomplete combustion, may be exposed to these materials through inhalation, and may incur some dermal exposure to facial areas. EPA estimates that 30 to 60 emergency response personnel may be exposed for up to 4 hours during the extinguishing of a PCB Transformer fire. Dermal and inhalation exposures of fire-fighters and other emergency response personnel may continue during the completion of equipment maintenance procedures and during the cleaning of personal clothing and firefighting equipment after the fire." [Id. 29180]

"EPA expects that one to two serious PCB Transformer fires will occur over the remaining useful life of this equipment as a result of the failure of the enhanced electrical protective systems to operate." [Id. 29182]

Indeed, the very reason the Rule was passed in 1985, was EPA's finding that PCB transformers and the fires involving those transformers produced a situation that was extremely hazardous to public health. Moreover, even the use of enhanced electrical protective systems could not insure that such dangerous episodes would not happen in the future.

II. THE POTENTIAL LEGAL ACTION TO RECOUP PCB CHANGE-OUT COSTS

We turn now to our intended legal action for recovery of costs^{4/} associated with the University's PCB change-out program.^{4/}

^{4/} I am not aware of the litigation you refer to in your letter. I am aware of the PCB litigation that I have been involved in over the past four years as lead counsel of our PCB team. During that time GE, and the other prospective defendants in this matter, have lost a combined total of 14 discovery motions and a combined total of 9 major motions for summary judgment. Indeed, our PCB team has yet to lose a major pre-trial proceeding in four years.

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I would note that the claims of our intended action are not exclusively premised on the EPA regulations. It is true that only one of those claims encompasses those regulations; however, the bulk of our claims find their legal bases outside those regulations.

As you are aware, the case law involving the asbestos change-out programs is developing rapidly. As you may well expect, we have kept a close watch on this area of the law because many of the legal theories advanced there are perfectly suited to PCB change-out programs. You may wish to review one of the most recent cases in that area, Board of Education of the City of Chicago v. A.C. & S, Inc., ___ Ill.App. ___, (1st. Dist. No 86-817, 6-1-88)

As I told you at our meeting in Bloomington, since our intended claims are not premised on standard products liability causes of action, neither the statute of repose nor the statute of limitations poses a problem for the University's claims.

You observe in your letter that the sales of PCB equipment were "legal". Without seeming to be brash, we ask, "so what?" As you must be aware, the sales of most every product upon which claims are premised were situations where the products were legally sold. I'm afraid your point is lost as to me.

Lastly, you observe that your conduct was not "negligent" concerning the sales of your PCB equipment to the University. I tend to somewhat agree. Your conduct was more akin to intentional and fraudulent conduct, as a highlight of the facts below will attest.

**A. FRAUDULENT CONDUCT INVOLVING
FAILURE TO WARN, MISREPRESENTATION
OF FACTS, AND CONCEALMENT OF MATERIAL FACTS**

Monsanto began the manufacture of PCBs in the early 1930's after purchasing Swann Chemical Company. GE and Westinghouse bought their PCBs exclusively from Monsanto for use in the transformers and capacitors that GE and Westinghouse manufactured and sold.

By September 15, 1938, Dr. Ceil K. Drinker, Harvard School of Public Health, had warned Monsanto of the highly toxic qualities of PCBs and the dangerous consequences attendant to exposure to that chemical. Similarly, by March 28, 1938, Dr. W.F. von Oettingen, had warned Westinghouse of the highly toxic nature of PCBs and the dangerous consequences attendant to exposure to PCBs.

By 1947, Monsanto was discussing the extreme toxicity of PCBs, and concluded, concerning exposure to PCB:

"There is need therefore to give warning. For the toxicity of these compounds has been repeatedly demonstrated, both from the standpoints of their absorption from the inspired air, as well as from their effects in producing a serious and disfiguring dermatitis when allowed to remain in contact with the skin. Since these effects have been repeatedly observed, industrial hygienists have taken care to see that the proper controls have been established wherever these products are used."

In the 1960s, the PCB problem was carefully and confidentially being discussed in the electrical equipment industry. On October 30, 1969, GE published (for in-house use) its study: PCB: An Industry Problem, a publication that discussed the toxicity of PCBs, and the serious problems associated with its use and disposal. It was during the 1960's that both GE and Westinghouse began to confer with Dr. R. Emmet Kelly, M.D., Monsanto's physician, concerning PCB problems.

By November 17, 1969, Monsanto's own corporate minutes reflected its concerns about the PCB problem. These corporate executives observed that PCBs were seriously affecting the environment; that they must take action to, "notify all Aroclor [PCB] customers of the PCB problem." Indeed, these Monsanto executives decided at this meeting to stop manufacturing certain types of PCBs.

It was Dr. Kelly who on March 30, 1970, addressed his memorandum to Monsanto's executives concerning ~~to~~ serious problems associated with the use of PCBs and their toxicity. In this memorandum, Dr. Kelly prophetically asked:

"This brings us to a very serious point. When are we going to tell our customers not to use any Aroclor [PCB] --- I think it is very important that this be done."

* * * *

"All in all, this could be quite a serious problem, having legal and publicity overtones."

The deception and concealment of material facts continued well into the 1970s. By April 23, 1970, Westinghouse executives sat down to discuss the PCB problem. These executives observed:

"At worst, I see this as a matter of great concern, potentially bad enough to force us out of the Inerteen transformer business. At best, we must institute a much tighter control over the usage and disposal of Inerteen, as well as all other materials to which it has been exposed. Lastly, we must consider communications with our customers. Utility customers are fairly easily reached, and many are already on notice as a result of IEEE Transformer Committee actions. They should probably hear directly from us. Industrial and commercial customers (the major users) are a more complex problem."

Four months later, on August 25, 1970, Westinghouse executives again met to discuss the PCB problem. They concluded:

"We do recognize that the problem concerning this fluid is rather severe even though these may well be entirely political in nature."

Political, indeed. Within two weeks, Westinghouse executives, realizing that they were now liable under the law (politics aside), began to discuss their potential liability. In sum, Westinghouse knew that lawsuits would be coming. And, as Westinghouse officials observed a few months later on January 12, 1971, "...each day the problem gets worse."

That provokes one to ask who caused this PCB problem? That question was answered by Mr. William B. Papageorge, an executive from Monsanto who was speaking to GE, Westinghouse and the other prospective defendants in this case. Mr. Papageorge opined:

"We at Monsanto first heard of PCBs as a potential environmental contaminant in early 1967 This is a very real problem..... A thought we must all keep in mind, too, is that we've got to live with the PCBs we introduced into the environment for the past 40 years. They have not disappeared overnight; they will not disappear overnight."^{5/} (Emphasis added)

Well, GE and the other manufacturers kept on selling PCB filled capacitors and transformers as though they knew nothing about the PCB problem. Yet, Westinghouse executives in March 1972, knew otherwise. They assessed the problem in these words: "This problem is extremely serious as evidenced by the proposed federal legislation attempting to ban its use." It was about this same time that McGraw Edison's lawyer was advising that company, in connection with potential liability for its sales of PCB electrical equipment, "Therefore, the efforts should be geared to limit damages."

All of the prospective defendants in this matter were aware back in 1972 that litigation would be coming, of the type now now under discussion. In fact, in 1972, Monsanto notified GE, Westinghouse and others that Monsanto would only sell PCBs on a hold harmless bases -- a stark admission of liability. Indeed, Monsanto's corporate minutes for January 25, 1972, reflect that both GE and Westinghouse agreed to this astounding arrangement.

We believe the foregoing catalogue of facts more than demonstrates the point; yet, we would be remiss if we did not depict the extent, and depth, to which the proposed defendants would go to effectuate their deception.

In the mid-1970's, Monsanto had hired an independent laboratory to do toxicity tests on chemicals manufactured by Monsanto, and under scrutiny of the FDA. That laboratory was Industrial Bio-Test Laboratories, Inc. ["IBT"] The principal officers at IBT were Messrs. Calandra and Paul Wright.

^{5/} Mr. Papageorge was somewhat less than forthright concerning when Monsanto was actually put on notice concerning the dangers associated with the use of PCBs. He must have "forgotten" about the warnings Monsanto received in 1938 and again in 1947.

Messrs. Calandra and Wright, working under the auspices of Monsanto, forged and falsified toxicological data submitted to the FDA concerning Monsanto's chemicals. Ultimately Calandra and Wright were indicted, convicted and imprisoned for their fraudulent activity. Those convictions were affirmed on appeal by the United States Court of Appeal. US v Keplinger, 776 F2d 678 (7th. Cir. 1985). The sordid facts of this episode are set out in the opinion.

Later, this same Paul Wright was hired by Monsanto to oversee the toxicological studies being done on PCBs -- studies that would be used to convince Congress that PCBs were not toxic, and did not pose a threat to either the environment or the public.

Paul Wright engaged the services of IBT to carry out these PCB toxicological studies on behalf of Monsanto. The fraud continued in its intensity. Now, Dr. Levinskas, Monsanto's toxicologist, arranged with Mr. Calandra of IBT to change and falsify toxicological studies so as to indicate that PCBs were not tumorigenic [cancer causing]. Mr. Calandra went along with the deceit. Meanwhile, Paul Wright actually went to IBT and forged PCB toxicological studies -- studies that were to be used by Monsanto in its efforts to persuade federal agencies that PCBs posed no threat to the environment or public health.

Even later, on July 16, 1976, Monsanto presented an award to this same Paul Wright, its employee who by now is knee deep in fraud and deceit. Here's what Monsanto's memorandum indicated was the basis for presenting the award to Paul Wright.

"Particularly noteworthy were his efforts on polychlorinated biphenyls (Aroclors) and chlorinated isocyanurates (ACL products). In the former instance, his excellent analysis and synthesis of widely scattered observations played a prominent roll in forestalling EPA's promulgation of unrealistic regulations to limit discharges of polychlorinated biphenyls. EPA's proposed regulations would have precluded the use of these materials by Monsanto's customers."

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Four months later Congress passed the Toxic Substances Control Act which banned the manufacturer, sale and use of PCBs. Monsanto's campaign of fraud and deceit was unsuccessful.

III. CONCLUSION

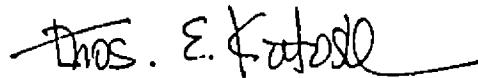
We turn to your proposals of November 14, 1988, which are directed to the resolution of the PCB change-out program under way at the University.

Your proposals are unacceptable. By your own study, the University will incur change-out costs of \$3,460,000.

We make demand for that sum. If good faith negotiations, directed at resolution of this dispute, are not commenced within 20 days, we intend to invoke the appropriate provisions of the tolling agreement and commence legal action.

You may direct your comments either to me or Mr. Travis.

Sincerely,



THOMAS E. KOTOSKE

TEK:rry

cc: Mr. Cliff Travis
Mr. David McCrea