ATTORNEY
WORK PRODUCT

PCB LEGAL REVIEW

CONFIDENTIAL LEGAL OPINION
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William A. Blase
December 6, 1971

INDEX

Monsanto

FROM (NAME & LOCATION) LAW DEPARTMENT

DATE December 6, 1971 cc: Mr. R. Harris

SUBJECT PCB's - Pending and Threatened Litigation

ATTORNEY WORK PRODUCT

REFERENCE

TO Mr. E. J. Putzell, Jr.

CONFIDENTIAL LEGAL OPINION

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I. Introduction.

As requested, we have completed our legal review of the Company's PCB business and various pending and threatened litigation with respect thereto. Because of the relatively short period of time to study this matter and the need for restricting the opinions expressed herein, the information and conclusions set forth in this memo are subject to further confirmation and amplification. Many of the statements, principles and conclusions are summarized for brevity.

A topical index is provided, along with numerous exhibits which provide additional detail. Copies of this memo have been restricted to you, Mr. Harris and myself. Judgment is being reserved as to whether even these copies should be retained after your use of this material is complete.

In order to analyze the legal aspects, we considered it important to include some background information and some chronological listing of events and actions heretofore taken by the Company. Although in June 1970 the Company informed its food processing customers that it would no longer sell, after July 31, 1970, PCB fluids in applications where the potential for food contamination existed, nevertheless, because of certain customer hardship situations, occasional sales of small drum lots continued with respect to a small group of such customers--approximately 12 out of 100--such sales being authorized by the Marketing Manager for PCB heat transfer fluids. After the East Coast Terminals incident in the early summer of 1971, a clear firm policy was adopted with respect to such PCB sales and by the end of July 1971 all PCB sales to food, animal feed and food related customers were terminated.

The principal legal question yet to be resolved as to past sales of PCB's is, in our judgment, whether or not the Company should take positive steps to notify, or cause notices to be sent to, users of products or equipment containing PCB's (who have not been and are not customers of the Company, e.g., silo owners) as to the possible harmful effects of PCB's. A fuller discussion of this problem appears later in this memorandum. Still to be resolved is the date on which the Company had notice of possible harmful effects, the gap, if any, between such notice and of steps taken by the Company as a result thereof, and of additional legal exposure to the Company with respect to certain PCB sales in this interim period.

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A section on preventative action is included in this opinion. The list of steps to be taken is not intended to be all inclusive and certainly other suggestions will be meritorious, as well as variations to those suggested herein.

II. Product and Its Uses.

1. Background.

Polychlorinated biphenyls (PCB's) were discovered in the late nineteenth century, but it was not until about 1930 that industrial applications were found. PCB's proved to be excellent plasticizers for paints and adhesives, and provided fire-resistant electrical and hydraulic fluids. They were first produced in the United States by the Swann Chemical Company at the Anniston, Alabama Plant for General Electric in 1931; Swann was subsequently acquired by Monsanto Company. For some time it has been known that repeated contact with skin and inhalation of fumes and dust from PCB's might be harmful, and warnings to that effect were printed on the labels. Monsanto has continuously warned of such known hazards in the use of PCB products.

2. Financial and Production Data.

Monsanto is the sole U. S. producer of PCB's. The business has continued to be highly profitable for the Company. Approximately 350 million tons have been produced by Monsanto Company in the last twelve years. Estimated sales and earnings on PCB's for 1971 are as follows:

Dielectrics	8.7 ($M)
Heat Transfer	1.3
Industrial Fluids	6.0
NCR	3.3
Plasticizers	1.3
TOTAL	20.6 ($M)
Gross Profit	7.9 ($M)
NIAT	2.1
Gross Investment	29.8

In 1970 sales were $21.6M; gross profit was $9.6M; NIAT was $2.9M; and gross investment was $28.7M.

3. PCB Producers.

PCB's are currently produced by Monsanto at only one location, we ceased selling the distributors in 1970

the Krummrich Plant at Sauget, Illinois. Production at the Anniston, Alabama Plant was discontinued in April 1971. PCT's however continued to be produced at Anniston. PCB's are also produced by MCL at Newport in the United Kingdom and by MMK at Yokkaichi, Japan. Other producers of the product are or have been Bayer, Prodelec, Caffaro, Flick, Kanegahuchi, and several eastern European producers (all ex-USA).

4. Markets.

PCB products sales have previously fallen into three major groups:

A. Functional Fluids

(1) Dielectric Fluids

These are insulating fluids for use in transformers and capacitors. PCB's are still being sold for this purpose.

(2) Heat Transfer

PCB's were sold as a heat transfer fluid in high temperature systems. By the end of July 1971, all sales for food, animal feed, packaging and pharmaceutical purposes were terminated.

(3) Industrial Fluids (Hydraulics and Coolants)

PCB's are no longer being sold for this purpose, having been discontinued in April 1971.

B. NCR Paper

PCB's were formerly sold to NCR for the manufacture of carbonless copy paper. Sales for this purpose were discontinued by the end of April 1971.

C. Plasticizers

The markets for this category were hot melt adhesives, swimming pool paints, protective coatings, emulsion adhesives, solvents, wax modifications and miscellaneous. Sales of PCB's for these purposes were discontinued by the end of August 1970.

III. Suits and Claims.

1. Pending Actions and Claims.

A list of various suits and claims pending regarding PCB's is set forth in Exhibit 1 hereto. There are presently four Ohio silo suits; one New York suit involving allegedly PCB contaminated chicken feed; and the Holly Farms \$6M + \$6M compensatory and \$50M punitive damages suit. Approximately 5 other parties have indicated the possibility of claims related to silos coated with PCB containing compounds. Monteagle Silo Company has also indicated an intent to hold us accountable for losses they may incur with respect to silos sold by them coated with PCB containing compound.

2. Other Reported PCB U.S. Incidents.

PCB's have been reported as affecting certain species of wildlife and some fish. Thousands of turkeys in Minnesota were reported as being unfit for human consumption in August 1971. Ralston Purina has expressed great concern over potential losses of chickens and eggs and of the potential significant adverse effect on the chicken and egg business as a result of PCB's. The presence of PCB's has been discovered in certain cereal boxes and wrappings, in virgin paper pulp and in various bodies of water. None of these events, however, has resulted in any direct claim being made against the Company. Some of these events are also discussed in the next section.

IV. Chronological Summary of Certain PCB Events.

1. In November 1966 two Swedish scientists, Professors Gunnar Widmarck and Soren Jensen, of Sweden's Institute of Analytical Chemistry, orally reported, at a meeting in Europe, their identification of PCB residues in fish and wildlife. They theorized that the source must have been industrial wastes of PCB users. This was the first report of any possible environmental problem with PCB's, and apparently the discovery was a scientific breakthrough. Monsanto's Medical Department first heard of this report around the first part of 1967. Comments on the Swedish study appeared in various scientific journals, but apparently there was no consensus in the scientific community throughout 1967 and 1968 as to the effects of PCB on the environment.

2. Around May of 1967 G. Widmarck published "IUPAC Commission of Methods of Pesticides Analysis: Possible Interference by Chlorinated Biphenyls." This article led to the FDA

methods development program to separate polychlorinated biphenyls from chlorinated pesticides encountered in regulatory analysis.

3. The work of Dr. Robert Risebrough of the University of California in Nature Magazine (a British publication) in December 1968 on the finding of PCB's in fish and birds on the California coast was brought to Monsanto's attention in October 1968 prior to publication. This was the first published report of the presence of PCB's in the United States. Monsanto investigated the validity of the charges made by Risebrough and concluded that at most, the study indicated that PCB residues might impair the reproductive capacity of certain wildlife species. Since Risebrough's investigations were limited to wildlife, the basis for his conclusions of toxicity to humans was not apparent. Monsanto knew of, and warned against, the possible harm of inhaling PCB dust and vapors, although its label did not specifically mention toxicity. On February 24, 1969, an article appeared in the San Francisco Chronical on Risebrough's study. The article reported that "top Monsanto scientists and management were studying Risebrough's report."

4. On March 7, 1969, the Associate Commissioner for Science and Deputy Associate Commissioner for Compliance asked the Bureau of Science to evaluate foods sampled for pesticides for evidence of PCB. None was indicated except in some fish from the Great Lakes.

5. During the months of June and July of 1969 PCB was identified as a contaminant of many fish analyzed as part of injunctive proceedings against the City Smoke Fish Co. of Detroit, Michigan. These fish also contained DDT above 5 parts/million. The firm was enjoined by U.S. District Court.

6. On September 13, 1969, the Baltimore District Office of the FDA reported PCB in West Virginia milk. This series of samples was traced to use of Aroclor Oil as solvent for pesticide spray. Grade A milk shippers involved were taken off production by the State.

7. The earliest evidence of harm from human consumption of PCB contaminated food appears to be a Japanese newspaper article dated July 24, 1969. The article announced the death of a 14-year old Japanese boy from the consumption of rice bran oil contaminated with PCB. The contamination apparently arose from a leakage of heat transfer fluid containing PCB's.

8. On March 24, 1970, the State of Ohio advised FDA they had a problem in milk resulting from Aroclor containing silo sealant. The State was told FDA would initiate Federal seizure at 0.2 ppm (whole milk). The State handled the problem and dumped an unknown quantity of milk.

9. In December 1970 contaminated chickens were discovered by the Campbell Soup Company in the State of New York. Contamination was attributed to the wrapping and containers of stale bakery goods used in the chicken feed formulation.

10. On May 19, 1971, Congressman William Ryan (D) of New York introduced HR 8576 which would impose a ban on interstate distribution or importation of PCB's except for limited uses as approved by the Secretary of HEW.

11. On July 16, 1971, the East Coast Terminals incident occurred, which involved the leakage of PCB heat exchange fluid causing contamination of pasteurized fishmeal which in turn was fed as a ration to chickens and catfish.

12. On August 9, 1971, PCB was reported in turkeys in Minnesota. FDA investigation could not determine that feed or its constituents was the cause. The investigation continues.

13. On August 11, 1971, a seizure was recommended for 75,000 eggs in Norfolk, Virginia (a further outgrowth of the East Coast Terminals incident). Around this same period certain grain and cereal composite were found to contain PCB at 0.4 parts/million level. Packaging for shredded wheat component was considered to be the source of the contamination. Highest level of 433 ppm was found in greyboard.

14. On July 26, 1971, Congressman William Ryan (D) of New York introduced a further bill, HR 10085, which would impose a total ban on interstate distribution, use and importation of PCB's.

15. A conference was held on September 3, 1971 by the American Paper Institute to find out what information they could give about recycling. It was reported that NCR had discontinued PCB in copy paper as of June 1, 1971.

Attached as Exhibit 2 is the Food & Drug Administration listing of PCB events dated September 29, 1971. Also enclosed as Exhibit 3 is a summary by Mr. R. E. Keller, a scientist of the Company's Organic Division, dated March 10, 1969 relating to PCB chronological events prior to such date.

V. Actions Taken by Monsanto.

1. Since the mid-1930's Monsanto has conducted various tests as to the effects of PCB's. None of these early tests ever indicated that PCB may cause environmental problems. In 1968 Monsanto began work with world scientists to identify and measure PCB in the environment. It commenced to begin modernization of manufacturing techniques, the installation of new pollution abatement devices and the tightening up of plant techniques.

2. An August 1969 memo from the Medical Department recommended that heat transfer fluid containing PCB be used in food processing equipment only if contamination of the food was impossible, except where fluid loss would be obvious from the large quantity of fluid leaking from the system. No immediate change was made in the labeling of PCB after the Medical Department's recommendation.

3. In the spring of 1970, the Company alerted its PCB customers as to possible PCB problems, and offered technical assistance to them with respect to the use, handling and disposal of PCB. You have previously been furnished with copies of all notices and warnings sent by Monsanto to its PCB customers. A summary of the dates and contents of such notices, prepared by J. S. Metcalf of the Industrial Chemicals Company is attached as Exhibit 4. Monsanto arranged in May-June, 1969 for a two-year independent toxicological study and in April 1970 for biodegradability studies of PCB. Monsanto further commenced to develop alternate products to replace PCB's.

4. In April 1970 a letter from Monsanto's Medical Director to the USDA stated Monsanto's decision to limit the sale of PCB's to use as fire-resistant fluids in closed systems. Monsanto's decision to restrict the use of PCB's in food processing equipment occurred after the FDA's setting of "action level" standards of PCB in milk, fish and poultry. The FDA standards were established in July 1970.

5. Monsanto made no changes in its warning label until May 18, 1970--a year and a half after publication of Risebrough's work. At this time, Aroclor's label was modified by the addition of a warning that PCB might be an environmental contaminant and that extreme care should be taken to prevent leakage, disposal or vaporization resulting in its entry into the environment. Copies of the prior warning label, and of the revised label are attached hereto as Exhibits 5-A and 5-B, respectively. (Starting in August 1971 further

changes were made in the label, adding specific warnings relating to foods, food related products, etc. A copy of this current label is attached as Exhibit 5-C hereto.) Other PCB labels--the Therminol F R series of fluids, Inerteen (a Westinghouse trademarked product), Pyranol (a GE trademarked product) and Pydraul--were likewise changed over a period of time commencing in 1970 with the label for the Therminol FR-1 fluids (Exhibit 5-D) being changed in August 1970 by an overprint on existing labels to contain the environmental message (Exhibit 5-E). In February 1971 a new Therminol FR-1 label (Exhibit 5-F) was printed containing the environmental message; and finally in November 1971 a new label (Exhibit 5-G) containing all of the above referred to messages plus an expanded environmental statement and waste disposal information was printed for use. Therminol FR-1 was the product sold to East Coast Terminals and involved in the Holly Farms incident.

6. On August 7, 1970, fish found near the effluent of the Anniston Plant of Monsanto were found to contain PCB. Results were reported to the State (these were recreational fish).

7. By the end of August 1970, Monsanto discontinued the sale of PCB's for use in plasticizers and open systems.

8. At the end of the first quarter of 1971, Monsanto discontinued the sale of Aroclor 1242 to NCR and replaced it with MIBP in the United States and HB-40 in the United Kingdom.

9. Monsanto also reported in the spring of 1971 that it had made progress in the development of more environmentally acceptable PCB fluids for use in capacitors.

10. During the month of July 1971, Monsanto discontinued the sales of Therminol F R Series Fluids to heat transfer systems relating to food. All customers' lists were being scrutinized where food products might be affected and no new customers were being accepted in this regard after August 16, 1971. With respect to users of Therminol F R Series Fluid who were not able to change over to T-55 or T-56, Monsanto submitted to them, commencing August 9, 1971, a form of indemnification agreement which had to be executed before further sales would be continued to them.

11. At a September 8, 1971 meeting, the Company told the FDA that PCB would be limited to essential closed system uses with no use in food or feed plants.

12. On September 30, 1971, plant discharges at the Krummrich and Anniston Plants in the United States, and the Newport Plant in the United Kingdom were reduced to a level of PPB (1 pound per day).

13. In November 1971, the Company's management made further decisions regarding the restriction of PCB sales.

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VI. Corporate Management Committee Decisions.

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PCB matters were reported to and reviewed by the Corporate Management Committee on three separate occasions, viz., November 17, 1969, April 20, 1970 and May 11, 1970. Specific decisions

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VI. Corporate Management Committee Decisions.

PCB matters were reported to and reviewed by the Corporate Management Committee on 11 separate occasions, viz., November 17, 1969, April 13, 1970, April 20, 1970, May 11, 1970, June 2, 1970, June 29, 1970, July 27, 1970, September 14, 1970, March 8, 1971, August 2, 1971 and September 7, 1971. Specific decisions by the Committee are set forth in the minutes of such meetings attached hereto as Exhibits 6-A through 6-J.

The November 12, 1971 status report of the presentation by the Industrial Chemicals Company as to steps taken in implementation of the CMC decisions is attached as Exhibit 7.

VII. Legislation.

On May 19, 1971, Congressman William Ryan (D) of New York introduced HR 8576 which would impose a limited ban on interstate distribution or importation of PCB's. On July 26, 1971, Congressman Ryan withdrew his original bill and submitted HR 10085 which would provide for a total ban of PCB's. A further bill, HR 11219, introduced by Ryan and twenty-three other Congressmen on October 13, 1971 also would impose a total ban.

VIII. Liability.

A. Product Liability.

Various theories may be advanced regarding potential liability of the Company for PCB's. They are strict liability, negligence, implied warranty, and misrepresentation. A brief discussion of each follows:

1. Strict Liability.

a. Legal Principles.

Strict liability is the imposition of liability without fault. Proof of negligence is not essential. The strict liability doctrine is gaining acceptance and is being expanded to apply to products other than food and beverage products. A limited number of courts still rely upon a breach of an implied warranty as a theoretical basis for applying strict liability. However, most states employ the tort doctrine of strict liability.

Manufacturers are subject to strict liability when products leave their hands in a condition unreasonably dangerous to the ultimate customer. The mere fact that the product is to undergo processing or other substantial change will not in all cases relieve the seller of liability. Sellers are accountable to all persons reasonably within the distributive chain whose injuries by a defective product are foreseeable.

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Is PCB subj to strict liab? Trend of the law in that way -

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inadeq label = defect

Manufacturers are subject to strict liability when products leave their hands in a condition unreasonably dangerous to the ultimate customer. The mere fact that the product is to undergo processing or other substantial change will not in all cases relieve the seller of liability. Sellers are accountable to all persons reasonably within the distributive chain whose injuries by a defective product are foreseeable.

A product that is faultlessly made may, nevertheless, be unreasonably dangerous and thereby be considered as "defective." Accordingly, a manufacturer must give warning of any dangerous propensity of his product of which the user has no knowledge and would not ordinarily discover. The duty to warn is measured by the foreseeability of injury to users and presupposes that the manufacturer must have actual or constructive knowledge of the possible harmful propensities of his product. A failure to give a proper warning or a failure to label a product adequately, may constitute a "defect" under the strict liability theory.

Manufacturers are supposed to possess the knowledge of an expert, and they are required to keep abreast of technological advances and scientific discoveries relating to their type of product.

b. Defenses.

A number of traditional defenses are not available in suits for strict liability, such as reliance, notice of breach of warranty, disclaimers (in some instances), privity and necessity of sale. On the other hand, contributory negligence and assumption of risk are recognized as defenses. Continued use of a product with knowledge of its defectiveness ordinarily defeats recovery on either ground. Disregard of warnings and cautionary instructions usually constitutes negligence on the part of the user.

also intervening public cause of injury

c. Application of Strict Liability Principles to PCB.

(i) Heat Transfer Systems.

eg: Eastham terminals

1. Primary Purchaser. Purchasers of PCB for use in a heat transfer system probably would not prevail in an action against Monsanto for property damage (contamination of its product), provided that we have provided such purchasers with adequate notice of any PCB dangers and of its safe handling in a heat transfer system. On such basis the product would not be "defective" and because of the warning, the assumption of the risk doctrine is available to us.

2. Third Party User. An action by a third party user from our customer would probably be based upon damages sustained by PCB product contamination through leakage, vaporization, etc. Such party should not have a good case against Monsanto because PCB's are not intended or expected to be used or consumed by such third party. With respect to claims arising from damages incurred after Monsanto's warnings of dangers in the use of PCB's and that the same should not be used in heat transfer systems connected with food or animal feed products, Monsanto should prevail on the issue of proximate cause, since the damages would have been caused by intervening independent conduct by our purchaser in its use of PCB's contrary to our warnings and instructions. However, if Monsanto becomes aware that its customers are disregarding warnings and the Company nevertheless continues to sell PCB products to such customers, there may be a basis for liability to the Company.

Holly Farms

3. Employes of Primary Purchaser. The same type of defenses that Monsanto would have against its primary purchasers should be available in suits by employes of such purchaser. A question remains, however, as to whether the Company should take further steps to see that a direct warning is provided to such employes rather than merely relying on our customer to transmit such warnings to its employes. Adequate labeling on all containers may be of value in establishing a warning defense.

(ii) Silo Manufacturers.

Assuming that Monsanto engaged in a reasonable amount of research and testing with respect to PCB's over the years and prior to the time when Monsanto had notice of potentially harmful effects of PCB's (the "notice date"--perhaps around the fall of 1969), Monsanto owed no duty to silo manufacturers to warn them of possible dangers in the use of PCB as a plasticizer for

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silo interiors. After the date that Monsanto had notice, it in turn would have a duty to warn silo manufacturers of such possible harmful effects and the failure to give such warnings would probably result in liability for damages attributed to silos coated with PCB's after the notice date.

(iii) Dairy Herd Owners.

Before the notice date, Monsanto should have no liability to dairy herd owners. Obviously, any failure on our part to give appropriate warnings and notices after the notice date would result in liability to dairy herd owners if the strict liability theory is applied. Doubt remains as to whether the Company is under any duty to warn or cause a warning to be submitted to all silo owners whose silos were coated with coatings containing PCB's prior to the notice date. On the basis that the ultimate product is a food for human consumption, i.e., milk, a court may invoke the inherently dangerous product principle in holding a manufacturer accountable for foreseeable damages ~~and ignore~~ The privity doctrine will have no application.

2. Negligence.

a. Legal Principles.

(i) Manufacturer's Duty.

Manufacturers of products are required to exercise reasonable care to keep their products free from latent or hidden defects so as to avoid an unreasonable risk or harm to users and others, if injury to such persons is a foreseeable or likely consequence of the manufacturer's negligence.

(ii) Inspection and Testing Duty.

Manufacturers are required to make such inspections and tests in the course of the manufacturing process and afterward as are reasonably necessary to secure the production of a safe product. The degree of care required in conducting such inspections and tests varies in proportion to the risk of harm reasonably to be anticipated.

(iii) Warning Duty.

The principles stated above, with respect to strict liability, are equally applicable.

(iv) Defenses.

(1) Contributory negligence, assumption of risk, abnormal or unintended use, unforseeability of injury, proximate cause and intervening and concurrent causes are all defenses available to an action based on negligence. Absence of privity is not a defense.

(2) Disclaimers and Exculpatory Agreements. The validity of disclaimers and exculpatory clauses absolving a tortfeasor of liability for negligence is generally recognized. However, such agreements are strictly construed against the maker.

b. Application of Legal Principles.

With respect to the possibility of a gap between the "notice date" and the date that Monsanto gave warnings to PCB customers, a serious question is raised as to Monsanto's liability to such customers and other foreseeable users of PCB products.

(i) PCB for Heat Transfer Systems.

The analysis of a negligence action with respect to PCB is similar to the strict liability rule. The product not being defectively designed or manufactured, the basis for a finding of negligence would be a failure to warn of the dangers connected with the product. With an adequate warning, there would be no negligence and thus no liability. Liability to a third party for negligence could exist if the Company knew its customers were disregarding warnings and sales to such customers continued.

(ii) Silo Manufacturers.

Assuming the adequacy of Monsanto's testing and research prior to the notice date, Monsanto had no duty to the silo manufacturers to warn of possible risks unknown to it. After the notice date Monsanto had a duty to warn the silo manufacturers of the known risks of PCB. With respect to sales of PCB's after the notice date, liability to the silo manufacturers for the cost of replacing the silo interiors, etc., appears significant. Further, if a dairy herd owner is successful in litigation against the silo manufacturer, the silo manufacturer may in turn be successful in seeking indemnification from Monsanto, on the basis that the silo manufacturer was a passive rather than an active joint tortfeasor.

(iii) Dairy Herd Owners.

The analysis of a legal action with respect to PCB's by a dairy herd owner would be similar to that described under strict liability above.

3. Implied Warranty of Fitness.

a. Legal Principles.

An implied warranty of fitness arises by operation of law and is a warranty that the goods are suitable for the special purpose of the buyer. The damaged buyer must show that he actually or impliedly made known to the seller the particular purpose for which the article was purchased. Normally, in order to impose warranty liability upon sellers, a vendor-vendee relationship and a consummated sale are required. However, the traditional view that privity of contract is indispensable to recovery for breach of implied warranty has been challenged, often successfully, in recent years. In many jurisdictions the requirement of privity has either been relaxed or wholly abandoned.

b. Defenses.

In order to recover from a breach of implied warranty of fitness, the buyer is ordinarily required to prove that he relied on the seller's skill or knowledge when he purchased the injury-causing product. However, the act of purchase and use of a product is regarded in many cases as sufficient evidence of reliance. As a prerequisite to recovery, a buyer is ordinarily required to give the seller timely notice of the breach of any warranty. Disclaimers and limitations of liability by the seller are available defenses but are strictly construed; in some cases courts have refused to enforce them as being against public policy.

c. Application of Principles.

(i) Heat Transfer Systems.

(1) Primary Purchaser

In an action by our customer, disclaimers of warranties contained in the standard form contract should control. Furthermore, the PCB product was properly made for the purpose for which it was intended.

(2) Third Parties

A third party suit should fail for lack of privity of contract. (A court applying the theory of strict liability in tort would disregard the need for privity.) Decisions indicate that a product will be held to be "defective" if it is inadequately labeled, even if it has no inherent defects.

(ii) Silo Manufacturers.

In the event that a silo manufacturer brings an action against Monsanto based upon breach of an implied warranty of fitness, it would appear that standard provisions of Monsanto's standard form of sales contract relating to limitation of liability and limited warranty should limit our liability.

(iii) Dairy Herd Owners.

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Prior to the notice date, it is quite improbable that the dairy herd owners would be able to establish that the PCB product was defective, and in any event, privity of contract is lacking between Monsanto and the dairy herd owner. After the notice date the lack of privity of contract in most jurisdictions should constitute an adequate defense.

4. Misrepresentations.

a. Legal Principles.

There are two types of misrepresentations, negligent misrepresentation, a theory of liability gaining wider acceptance by the courts, and fraudulent misrepresentation, which has long been recognized as actionable. While the two tend to overlap, the difference depends largely upon the evidence introduced by the injured plaintiff in support of his claim. Generally, a manufacturer who represents an article as safe or free from hidden defects without actual belief therein based upon reasonable grounds and who knows that, if defective, the product will be dangerous, is guilty of negligence when he sells or delivers the article with such a representation. Conscious misrepresentation, resulting in injury to persons relying on the truth of the representation, amounts to fraud giving rise to an action for deceit. However, negligence or blindness to fact, even though not the equivalent of fraud, may nevertheless sustain an inference of fraud, at least if the negligence is gross.

b. Application of Legal Principles.

Fraudulent representation would appear to have no application to Monsanto's sales of PCB. There is an outside possibility that the theory of negligent representation could be applicable if we failed to give adequate warnings, thereby implying that the product was safe. The same could be said with respect to any Monsanto PCB sales activities.

5. Statute of Limitations.

The time when the statute of limitations commences to run depends upon the theory or basis for the action rather than the form of the action. For breach of implied warranty, the limitation period is usually said to commence at the time of the sale or delivery of the defective product; however, where the defect in the product could not be discovered at the time of sale, the limitation period commences when the defect has been or should have been discovered. With respect to causes of action for negligence, the majority view is that the statute commences to run on the date when the injury occurs or is discovered; the minority view is that the limitation period begins to run when the product is sold. When the theory of liability is based upon strict liability, the majority view is that the limitation period commences at the time of injury and not when the product is sold. With respect to cases based upon misrepresentation or fraudulent concealment of facts, the majority view is that the statute begins to run from the discovery of the fraud. For a detailed review on this matter, see Pat Arnall's memo of December 3, 1971, attached hereto as Exhibit 8.

6. Contribution and Indemnification by PCB Purchaser.

Assuming a successful third party suit against Monsanto Company in connection with PCB sales, an obligation of a buyer to indemnify Monsanto for negligence liability will probably not be implied from the buyer's agreement to assume liability for its use of a product.

Furthermore, if Monsanto's warnings with respect to PCB prove to be inadequate, the cases indicate that our purchaser, if sued by a third party, would be more likely to obtain indemnification from Monsanto.

7. Punitive Damages.

In a product's liability suit the decisions indicate that punitive damages will be allowed where the court finds a conscious or reckless disregard for the rights and safety of others, or a malicious intent to injure.

B. Liability for Discontinuing Sales of PCB's.

1. Contracts.

With the exception of sales contracts for PCB's with National Cash Register, all sales contracts will terminate either at the end of this year or contain Monsanto's environmental clause. With regard to the NCR contracts, all purchases by NCR have in fact been discontinued because of the PCB environmental problems, and, accordingly, any continuing obligations under this contract should not be a problem.

2. Discontinuance of Therminol F R Business.

Assuming Monsanto terminates the sale of Therminol F R, the question is raised as to liability to a customer based upon a Monsanto representation that Therminol F R was a proper heat transfer fluid for his application. The classic fraud or misrepresentation action is based on false representations, made with an intent to deceive and knowledge on the part of the defendant of the falsity of his representations. The test as to the truth of the representation is made as of the time made or acted upon by the plaintiff. Conscious ignorance of the truth of a statement is frequently equated to knowledge of falsity; a minority of jurisdictions permit a tort action for misrepresentation with respect to negligent statements and some impose strict liability.

It appears that in states adopting the majority rule, a plaintiff (even assuming he could prove that a representation as to use of Therminol F R had been made) would have an almost impossible task in establishing knowledge of the falsity of the representation or the type of recklessness required as a basis for a tort action (except possibly as to sales made during the current study of whether to discontinue marketing of the product). In most jurisdictions an honest reasonable belief on the part of the representor as to the truth of the statement precludes a tort action even if the statement turns out to be false.

As indicated above, other jurisdictions (at least between contracting parties) permit recovery on the basis of an untrue representation made without reasonable cause in ascertaining the facts or impose strict responsibility (in effect a warranty). But, would the representation be untrue if sales are discontinued because of environmental concerns or the risk that customers will mishandle the product, rather than its unfitness in a heat transfer system? Has not this same concern and risk already been incurred in discontinuing sales for use in food related systems?

Further, in order to succeed in tort action for misrepresentation, plaintiff would have to overcome the burden of a contractual provision stating that "Seller makes no representation or warranty . . . as to fitness for particular purpose." While the parol evidence rule in cases of "fraud" appears to permit introduction of extrinsic evidence, there are cases holding that the representee is placed on guard and cannot rely without investigation where the representor declines to warrant the matters represented.

3. Liability to Customers Due to Substituted Products.

Monsanto has been recommending to many of its customers of functional fluids that other non-PCB functional fluids be substituted for the present Aroclors in connection with transformers, capacitors, and heat exchange units. None of the subject functional fluids possess the fire-resistant qualities of Therminol F R and other PCB functional fluids. Sales literature and brochures issued by Monsanto should indicate that the substitute functional fluids ~~may~~ increase fire hazards, and may necessitate substantial changes in the users' plant and fire protection facilities. If a purchaser of the substituted functional fluids incurs a substantial fire and was not warned of the increased risks by accepting this substituted functional fluid, Monsanto would incur liability.

C. Pollution Liability.

1. PCB Environmental Contamination - General.

Monsanto may be subject to liability by reason of PCB contamination of air and water by its own action or by reason of pollution by Monsanto's customers or subsequent users.

2. Private Action.

It is probable that a private plaintiff attempting to reach Monsanto for PCB contamination would use a products liability theory, e.g., for negligence or strict liability. Most other forms of action would, by their nature, stop at the person whose act allowed entry of PCB into the environment.

Prior research indicates that fishermen have a sufficient protectable interest, and have a cause of action against manufacturers causing pollution resulting in the loss of proceeds for sale of fish.

3. State Action.

The existence of the right/of states to bring an injunction action for damages is clear. Furthermore, many states have special statutes which authorize the state to bring damage actions against polluters. The states also probably have a common law right to collect damages from polluters on a public nuisance theory.

The Federal statutes provide for fines and imprisonment for pollution of navigable waters. It appears that the cases do not authorize governmental recovery from parties other than actual physical polluters.

D. Raw Material Liability.

It has been determined by the Central Purchasing Department that Monsanto will not incur any difficulties under contracts for PCB raw materials (principally chlorine and benzene). These contracts are being terminated or the product transferred and used at the Texas City Plant for production of styrene.

E. Stockholder Actions.

If the Board of Directors of Monsanto Company determines to restrict the sales of profitable PCB products, or eliminates certain types of sales of PCB's, there is a possibility of a derivative action by stockholders, contending that the directors are liable for the wasting of corporate assets or mismanagement. Presumably, the "business judgment rule" would operate to protect the directors in these instances, and the directors would be held to a standard of care applicable to the ordinary prudent businessman-director in a commensurate situation. It can be further assumed that the curtailment or termination of sales of PCB products could be demonstrated to be taken on advice of counsel with regard to the actual or potentially large and serious lawsuits, as well as governmental actions by way of fines and injunctions. Also, the adverse impact upon the corporate image by PCB pollution, and its effect on other Monsanto product sales, constitute a further basis for such action by the directors.

F. Patent Liability.

The Patent Department has reviewed all patent licensing and royalty agreements respecting PCB and determined that Monsanto has no liability by way of minimum royalties or otherwise in the event that it terminates all or part of the production and sales of PCB.

IX. Insurance - Punitive Damages - Indemnification.

1. General.

Monsanto has in effect insurance policies covering the liability of the Company, its directors, officers and stockholders for damages on account of bodily injury or property damage with aggregate limits of $75M. The first $2.1M of such insurance is insured by Liberty Mutual Insurance Company with respect to occurrences before March 1, 1971 and with Travelers Indemnity Company with respect to occurrences after that date. In addition to the primary layer of $2.1M, additional excess insurance of $73M has been purchased from Lloyd's and various other British and American insurance companies under so-called "umbrella" policies. Summaries of the Travelers and Umbrella Policies are attached as Exhibits 9 and 10 hereof.

2. Premiums Structure.

A. Liberty.

The liability insurance from Liberty Mutual was divided into two policies, one with limits of $100,000 per occurrence and the other with limits of $2M per occurrence and in the aggregate per year for losses above $100,000. Premiums under the first policy are so arranged that Monsanto essentially must bear the entire loss for all claims thereunder. However, the final maximum premium, which is calculated after all potential claims have been resolved, will be subject to a limitation based upon the Company's payroll during the policy period, which maximum should be in the neighborhood of $7M. The second layer Liberty policy has a fixed annual premium costing approximately $180,000-$200,000 per year with no provision for retrospective adjustment. Thus, there is no basis for Liberty to charge us for any additional premium to reflect losses under the $2M policy.

B. Travelers.

The new Travelers policy in effect combined the two layers of Liberty Mutual policies into one. The first $100,000 of each loss is subject to a retrospective premium similar to the $100,000 Liberty Mutual policy which, in effect, means that the Company will repay to Travelers as premiums losses paid by Travelers for claims up to that limit. For losses above $100,000, a modified retrospective premium is also charged, but the formula is so arranged that the maximum premium to be paid by Monsanto during any policy year for liability insurance, including automobile, is approximately $675,000. Losses paid above this figure are not subject to a retrospective premium and, in effect, constitute pure insurance.

C. Umbrella.

The premiums paid by the Company for the umbrella insurance policy are fixed, without retrospective adjustment provisions, and losses do not affect such premiums. However, significant losses obviously could be a factor in determining the availability of all future liability coverage and the premiums to be paid therefor. All insurance policies are cancellable on thirty days' notice.

3. Reservation of Rights.

Liberty Mutual is currently defending all PCB cases occurring during the term of its policies, but in each instance has reserved the right to subsequently deny coverage. Thus far, Liberty has not set forth any specific reason for making such reservations. A sample of their reservation letter is enclosed as Exhibit 11. By letter dated November 29, 1971, a copy of which is attached as Exhibit 12, Travelers Indemnity Company served a reservation notice with respect to the punitive damages count under the Holly Farms case. The Agent for the umbrella insurers has been notified of the Holly Farms suit and no question as to reservation of rights has been raised thus far.

4. Policy Exclusions.

Both the Liberty and Travelers policies contain a limited exclusion with respect to property damages arising out of the failure of our products to perform their intended function or to achieve a level of performance or produce a benefit warranted or promised by the Company. However, this exclusion does not apply to physical injury to other tangible property directly caused by such products nor to any damage as a consequence of such physical injury so caused. Although the umbrella policies do not contain the same type of exclusion, such policies exclude claims for repairing or replacing defective products, loss of use of defective products or for improper or inadequate performance, design or specification. This exception, however, does not exclude claims for personal injuries or property damage resulting from inadequate performance, design or specification. The Liberty and Travelers policies also exclude coverage for the withdrawal, repair, replacement or loss of use of our products if this action is taken because of known or suspected defects or deficiencies therein, but the exclusion does not apply to physical injury to tangible property of which our product forms a part.

5. Definition of Property Damage.

The Liberty and Travelers policies define "damages" to include damages for loss of use of property resulting from property damage. "Property damage" is defined to mean injury to or destruction of tangible property. The umbrella policies cover liability for direct or consequential damages and expenses for "property damage"; that term is defined to mean loss of or direct damage to or destruction of tangible property.

6. Punitive Damages.

In the Holly Farms suit, $50M of punitive damages are claimed against the Company. None of the policies contain any specific exclusion with respect to fines, penalties, punitive or exemplary damages. At the same time no policies specifically state that such damages are expressly included. Only Travelers has expressed any view thus far on coverage for punitive damages arising out of this incident. Three substantive questions are raised in litigation against the Company for punitive damages coupled with a count for product liability damage: (1) The likelihood that punitive damages would be awarded; (2) Whether the various liability policies cover such damages; and (3) Notwithstanding insurance coverage, will public policy permit an insured to collect from his insurance carrier for such damages. Few cases have been discovered wherein punitive damages were awarded in a product liability suit. In the case of Moore v. Jewel Tea Company affirmed in 1969 by the Illinois Appellate Court, punitive damages were awarded where a can of Drano, a drain cleaning product, exploded and injured the consumer. The court reasoned that the manufacturer knew of the dangerous propensity of its product and its susceptibility to pressure. Failure to use a stronger container showed a conscious disregard for the safety of the consumer and served as the basis for punitive damages. The thrust of this and other cases where punitive damages were awarded in a product liability suit indicates that before awarding the same, the court will find a conscious or reckless disregard for the rights and safety of others or a malicious intent to injure. In the Holly Farms case no evidence has been uncovered indicating any deliberate or intentional act on the part of Monsanto. After the Company adopted its policy of ceasing further sales of PCB's for heat transfer applications involving food or animal feed, no Monsanto employe instrumental in the sales of PCB fluids to East Coast Terminals had actual knowledge that such sales were for an animal feed application. On this basis and the initial views of local North Carolina counsel, it is unlikely that punitive damages would be awarded in the above case. This matter, however, should be studied further when further facts are developed.

Punitive damages may well be covered by both the primary and umbrella liability insurance policies. Such policies are usually construed against the insurer and in favor of coverage, although this principle may not be as applicable in the case of the Travelers policy since the Company negotiated with the carrier over the provisions thereof. In several reported cases where the insuring language was comparable to that contained in our insurance policies, the courts held that punitive damages were covered by the policies.

Notwithstanding that insurance policies may include punitive damages, the authorities are split on the question as to whether public policy will permit an insured to recover such damages under his insurance policy. Courts allowing recovery for punitive damages base their decisions on various principles, e.g., the insureds reasonably expect to receive coverage; lack of a deterrent effect; and lack of malicious intent. Among the jurisdictions permitting insurance coverage for punitive damages are South Carolina, Tennessee and Alabama. Among the jurisdictions denying enforceability of insurance policies for such damages are Connecticut (the home office of Travelers), Florida and New York. Such cases base their opinions that the purpose of punitive damages is to punish the offender and a deterrent to similar conduct by others. If the offender is permitted to shift the burden of paying such damages to an insurer, the award will not serve such purposes.

For a detailed memorandum of law on punitive damages and insurance, including the uncertain treatment thereof in Missouri, see Pat Arnall's memo of November 30, 1971 attached hereto as Exhibit 13. Pat's research did not uncover any punitive damage/liability insurance coverage cases in either North Carolina or Massachusetts, the home office of Liberty and the Agent for the umbrella policies. None of the policies provide as to which state's law shall govern in interpreting and applying the policy.

7. Actions Against Directors and Officers - Indemnification.

It is conceivable that legal action may be brought against officers, directors and other management personnel active in the PCB business. Such action could be brought directly by the plaintiff against the Company and such persons, or derivatively on behalf of the Company, on the basis of some negligence or misconduct on the part of management. In such case, the indemnification by-law and directors and officers insurance may offer some protection. By-law 53 authorizes the Company to indemnify its employes from all liability incurred in the performance of their duties and reasonable expenses, under certain conditions. If they are successful on the merits, such persons are entitled to indemnification as a matter of right. In other cases the Board of Directors in its discretion can indemnify such persons if they meet the applicable standards of conduct set forth in the by-law. In the case of a derivative suit, the standards require that the employe must not have been adjudged to have been liable for negligence or misconduct in the performance of his duties; in the case of suits brought by a third party, the employe must have acted in good faith for a purpose which he reasonably believed to be in the best interests of the Company. As a supplement to the by-law protection, the Company also has purchased directors and officers liability insurance. Subject to certain exclusions (which include fines and penalties and bodily injury and property damage), the D&O policy protects directors and officers from liabilities incurred in their official capacity. Monsanto's current D&O policies have aggregate limits of $15M per policy year, but contain a $20,000 maximum deductible per individual with a maximum aggregate deductible of $500,000 per claim for all insured defendants. In addition, the individual assured must bear 5% of the amount of the loss covered by the policy above the deductible, but such participation ceases after the aggregate loss exceeds $1M. Except for General Managers, Regional Vice Presidents and the Director of Financial Relations, the D&O insurance policy does not cover any employes who are not officers or directors. As mentioned above, the Liberty, Travelers

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and umbrella liability policies cover directors, officers and stockholders, but not employes as such.

8. Summary.

Monsanto has very broad liability insurance protection. Although reservations of rights with respect to coverage have been made by Liberty and, in one case, Travelers, no sound basis for denying coverage has been furnished. Punitive damages may be within the scope of the damages covered by the policies, but public policy of a particular state may prevent an insured from recovering such damages. Directors and officers are specifically covered by the liability policies as well as D&O insurance and they have the additional benefit of by-law protection, except in misconduct and negligence cases in derivative suits.

X. Disclosure.

1. SEC.

Continued careful attention should be given as to the possible need for making a disclosure in our prospectuses and, possibly, monthly and annual reports (Forms 8-K and 10-K) to the SEC with respect to PCB's. Thus far, no specific statement regarding PCB's has been made in our SEC filings on the grounds that the matter was not "material."

Heretofore, the scope of pending litigation and claims was not deemed material for SEC purposes because such matters were believed to be covered by insurance and, with the exception of the Holly Farms case, were not significant in terms of damages prayed for nor in terms of the numbers of actual claims and litigation. With respect to the Holly Farms case, preliminary indications are that the $50M punitive damage count will not be successful and may be subject to dismissal at later stages of the judicial proceedings. Further, it is possible that punitive damages may be covered by our insurance policies. For these reasons this case could continue to be treated as not being "material"; although future developments thereon, together with the overall PCB problem, raises doubts in this area.

When our amended and new registration statements and Form 10-K are filed in the spring of 1971, a specific section on the environment will be added. Included in the environmental section of our prospectuses should be a discussion of the PCB problem and the status of any then material pending litigation.

2. 1971 Credit Agreement.

Under the Company's recent $125M Credit Agreement with FNCB and 15 other banks, the Company represents and warrants, at the time of each borrowing thereunder, that there are no actions or proceedings pending or threatened against the Company "which will, in the reasonable judgment of the Company, materially adversely affect the financial condition or operations of the Company." This representation and warranty is automatically applicable at the time of each draw down. It is anticipated that the Company will regularly borrow and repay loans under this Credit Agreement.

Although at the present time it is not believed that any of the outstanding claims and litigation fall within the category mentioned above, we are considering the advisability of sending a letter, in the form of Exhibit 14 hereto, to each bank informing them of the Holly Farms lawsuit in the same manner as that by which they were informed of the Dolgow case.

3. Annual Report to Stockholders.

The footnotes to our financial statements will contain a section on legal proceedings. Except with respect to further consideration of the Holly Farms case, none of the current litigation or claims regarding PCB's will be required to be reported under present circumstances.

4. Proxy Statement.

The only basis for possibly referring to PCB litigation in our 1972 Proxy Statement would be Rule 14a-9 dealing with false or misleading statements. However, since there is no pending or threatened litigation against any of the Company's directors or officers as a result of PCB's, and because no special propositions are expected to be submitted to stockholders, it does not appear necessary to disclose PCB litigation or other PCB problems in the Proxy Statement.

5. Rule 10b-5.

Rule 10b-5 would prohibit the Company and insiders from omitting to state a material fact in connection with purchase or sale of any of the Company's securities. In this connection it would be necessary for a claimant to show that the PCB problems were material and that there was inadequate disclosure thereof by the Company or such insiders. The Company has made a number of announcements concerning PCB's and there have been many additional outside statements in the press and by public officials concerning them. Again, on the basis that there is no pending material litigation, disclosure of such litigation would not be required in any case. However, as mentioned in Section 9 below, if the Company were to discontinue its PCB business entirely or substantially so, a public announcement thereon would appear indicated to preclude the assertion that insiders are withholding material information.

6. New York Stock Exchange.

The rules of the New York Stock Exchange require prompt disclosure of material developments. Such requirement would include the necessity for disclosing material litigation or other material events concerning PCB's. For the same reason and subject to the caveats stated herein, no specific disclosure to the New York Stock Exchange would seem required at the present time.

7. Litigation Report to Haskins & Sells.

Haskins & Sells is annually furnished a list of all significant litigation to which the Company or its subsidiaries are a party. It is anticipated that a reference to the PCB litigation will be included on such listing, even though such litigation may be "insured."

8. Other Notes and Indentures.

No special disclosure obligations are set forth in the Company's other long term borrowing instruments. The Trustees under our Indentures are, however, to be furnished with copies of our SEC reports.

9. Discontinuance of PCB Business.

In the event the Company discontinues all or substantially all of its PCB business, prompt disclosure thereof may be required in our SEC filings, to the New York Stock Exchange, and otherwise publicly in order to avoid the possible violation of Rule 10b-5 by insiders. Such disclosure would have to be made if the discontinuance were considered to be a material event or fact. However, the representations and warranties in our 1971 Credit Agreement, relating to contemplated draw downs, should not pose a problem since the discontinuance of such business would not be expected to "impair the ability of the Company to perform its obligations" (a condition to our borrowing) under that agreement or the notes of the Company issued thereunder.

XI. Preventative Action.

1. Management Review.

Top management of the Company should periodically review the status of PCB problems, developments and trends. Initially such reviews should be conducted at least semi-annually and more often as special circumstances or developments warrant. Actions taken as a result of such reviews should be reported by management to the Board of Directors. Management review of PCB matters would indicate due diligence on the part of Company officials and make available the protection of the sound business judgment rule. In turn, this action would constitute a defense to derivative actions brought against directors and officers for negligence or mismanagement.

2. Basic Documents.

A. Sales Documents.

All sales contracts, acknowledgment forms, invoices and other appropriate forms of documents relating to the sales of PCB's should be preserved. The record retention schedule should be suspended with respect to such sales documents. If such sales were made pursuant to Monsanto's standard sale terms, the provisions therein relating to limited warranty, limitation of liability, waiver of consequential damages, and the assumption of liability by the buyer would be available defenses. Further, Monsanto's standard terms of sale provide that the buyer assumes responsibility for all personal injury and property damage resulting from the handling, possession or use of the goods by buyer.

B. Notices and Warnings.

Preserve all notices and warnings distributed by the Company with respect to the possible adverse effects of PCB's. If available, a duplicate copy of each notice or warning should be retained or, as a minimum, a list of the parties to whom such warnings and notices were sent should be preserved. The names of the employes involved in such distributions should be documented, as well as the dates of such distributions. News releases and other external communications by the Company pertaining to PCB's should also be preserved.

C. External Publications.

A file should be maintained on all press clippings, statements by public officials and environmentalists, articles, etc., dealing with PCB's. Such documents may be of value in establishing defenses to PCB law-suits, e.g. to evidence prior notice of possible adverse effects of PCB's to prospective plaintiffs, to mitigate damages, to possibly establish the time for the running of the statute of limitations and as a source of valuable information. However, such statements and articles should be carefully audited from a legal and medical point of view and those which are not helpful in a defense of PCB litigation should not be preserved (except as part of the attorney's work product in the defense of a case), since such documents would be subject to discovery.

D. Labels.

Samples of all labels used on containers of PCB's should be preserved together with the dates when such labels may have been modified. All labels should be periodically reviewed and modified, as indicated.

E. Sales Literature.

All sales literature and technical bulletins with respect to PCB's should be preserved. Again, this literature should be checked periodically from a standpoint of warnings, notices, instructions for use, etc. Appropriate disclaimers should also be incorporated in all such literature. Additionally, sales literature and labels with respect to possible substitute products for PCB's should also be carefully reviewed and appropriate additional warnings regarding flammability, toxicity, etc. should be incorporated as indicated.

3. Future Sales Agreements.

All future sales of PCB's should be made on Monsanto's standard sales contract, signed by the buyer, and supplemented to contain (a) special provisions permitting the Company to terminate such contracts in the event Monsanto in its discretion determines that PCB's may be harmful to the environment; (b) strong indemnification provisions whereby the buyer assumes full responsibility and protects the Company from all liability resulting from its use, sale, handling, disposition, etc. of PCB's; (c) a representation as to the buyer's intended use of PCB's; and (d) an undertaking by the buyer to keep adequate records as to its use and disposition of such PCB's. Consideration should also be given towards the advisability of requiring buyers to provide appropriate warnings to their employes and customers who become associated with PCB's as to the environmental and possible hazardous effects of PCB's; also the right for us to inspect the buyer's systems and equipment using the PCB's.

Because an indemnification agreement is only as good as the financial responsibility of the party obligated thereby, policies should be adopted by the Company to further limit sales of PCB's to only those customers who:

(i) Have significant assets indicating sufficient financial responsibility. A minimum amount of such assets, as shown on their latest financial statement, should be required, (say ($50M to $100M), with some possible exceptions where a majority of the business of the Buyer is diversified in non PCB related operations, or where the PCB sales to it are insignificant; or

(ii) Provide us with adequate evidence that the liability assumed under the sales agreement is covered by contractual liability insurance with high minimum specified limits, say, $250,000/$1,000,000 for bodily injury, and $1,000,000 for property damage per occurrence. The practicability of an insurer covering such liability is open to serious question.

It should be recognized that indemnification agreements are not a panacea to the Company's potential future liability problems. Such agreements are always strictly construed against the indemnitee and courts frequently find ways to circumvent their application on the grounds of ambiguity, public policy, over-reaching, causation, etc. Under U.C.C. Section 2-302, a court may also refuse to enforce a contract or a clause in a contract found to have been "unconscionable." Although we are the sole U.S. producer of PCB's, our grounds for requiring an indemnity should support the enforceability of such an agreement. The Company would have the burden of proving that the particular claim against it is caused by the PCB's sold pursuant to such sales agreement. With millions of pounds of PCB's already in the environment and with the obvious difficulty of tracing the source of liability to the particular PCB's sold under the sale agreement (except in a specific accident arising out of a single occurrence), it may be difficult for the Company to show that the liability was caused by PCB's sold pursuant to the indemnity agreement. Accordingly, future buyers should be required to record their uses and dispositions of PCB's and allow us to periodically examine their records in this regard.

4. Disposal System.

Monsanto should make available to its present and past PCB customers a service for disposing of spent PCB's. Such a service will require careful instructions on repacking and returning these products to the Company. The Company may charge a fee for such service, but the fee should not exceed anticipated cost. Monsanto's method for disposing of PCB's should be periodically reviewed to determine potential long term environmental effects. Additionally, disposal questions involve an examination of appropriate pollution laws.

5. Cooperation with Regulatory Bodies.

The Company should continue to work closely with FDA and other appropriate federal and state regulatory bodies with respect to PCB's. Such action is desirable so that adequate and accurate scientific and technical information is furnished to such agencies and in order to keep abreast of trends, to indicate a public willingness to cooperate, to avoid the adoption of scare legislation and regulations and other similar purposes.

6. Testing Programs.

Monsanto should continue to directly sponsor test programs on the environmental effects of PCB's, especially as they may relate to their effect on humans. It does not appear that there are any specific tests on humans with respect to PCB's effect thereon, although considerable testing for this purpose on animals has taken place.

Additionally, Monsanto should cooperate with similar tests conducted by responsible public or quasi-public bodies.

7. Development of Alternate Products.

For business as well as legal reasons, Monsanto should continue its research and development programs with respect to substitute products for PCB's. There does not appear to be any overall substitute product which has the same properties and stabilities as PCB's. Development of alternate products may not only lead to potentially profitable Company business but would also be of value in mitigating potential damage claims by current and past purchasers of PCB's. Such purchasers may bring actions against the Company arising out of our discontinuance of sales, e.g., for damages related to renovation of their facilites, shut down, additional safety hazards, etc. Sales of any alternate products should also be carefully reviewed, and, if indicated, special indemnification agreements should likewise be obtained. In particular, adequate warnings or notices concerning the properties of the substitute product, fire hazards, toxicity, etc., should be set forth in sales literature, labels and other appropriate advertising and promotional material.

8. Termination of Heat Transfer Sales.

Steps to implement the recent decision to terminate sales of PCB heat transfer fluid products are now under special consideration by the management of Monsanto Industrial Chemicals Company. Because there are over 650 customers for such fluids, immediate personal contact by the Company with such customers regarding such terminations does not appear feasible and an initial notice letter is contemplated in lieu thereof. Great care should be taken to avoid making any admissions in such letter which could be used against us in present and future lawsuits. Further, suggestions made by the Company as to the use of alternate fluids should be carefully guarded and appropriate warnings as to the potential fire hazards, toxicity or other deficiencies in alternate products should be made. Offers to receive back from customers PCB fluids in their existing systems should be coupled with careful instructions concerning drainage, packing and shipping. A task force of well trained, experienced Monsanto personnel should be employed to handle this matter.

9. Legislation.

Continued efforts should be employed to attempt to obtain federal legislation providing for appropriate regulation and licensing of sales and uses of PCB's, rather than an outright ban thereof. Such legislation would enable the Company to continue its PCB business without threat of material litigation, although such business would obviously be severely controlled.

10. Record Retention Schedule.

Periodic reminders should be made to all personnel of the Company's record retention policy and schedules.

11. Insurance Companies.

In those instances where an insurance company may question coverage of a particular claim, the insurer should be required to specify the bases on which such reservation is made and, if possible, to withdraw its reservation.

12. Notices.

Additional notices should be sent to past and current customers of PCB's as and to the extent that other significant findings concerning this product are discovered. Additionally, the Company should encourage its PCB customers who resell PCB's in whatever form to send out appropriate notices to their customers if there is evidence that the ultimate use of the product/equipment containing PCB's may result in or constitute a real environmental hazard. An example of such action would be the letter Monteagle Silo Company intends to send to their customers.

13. Special PCB Committee.

A committee of selected Company personnel should be formed to continuously study, monitor and make recommendations as to the developments and trends on PCB's and of possible actions to be taken. Such committee should be composed of at least one member of the Law and Medical Departments, as well as from the Industrial Chemicals Company.

Many of the actions suggested above have already commenced and steps for their implementation are continuing. Other suggestions may indeed be warranted and all should be considered carefully before actions are taken thereon.

W A Blase

W. A. Blase

WAB/ca
Enclosures

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