STATEMENT RELATING TO POLYCHLORINATED BIPHENYLS
ON BEHALF OF THE WISCONSIN PAPER COUNCIL
MADE TO THE DEPARTMENT OF NATURAL RESOURCES
August 29, 1975

The Paper and Recycling Industries in Wisconsin

I am attorney James Derouin, a partner in the law firm of DeWitt, McAndrews & Porter in Madison, Wisconsin. I appear today on behalf of the Wisconsin Paper Council, the trade association for the pulp and paper industry within Wisconsin. There are 49 pulp and paper mills in Wisconsin operated by 34 major companies with a total of 148 other associated plants, including converters and distributors, which are additionally located within Wisconsin. The pulp and paper industry employs 46,000 people who produce in excess of 5 million tons of pulp and paper products annually. The total payroll for these persons is approximately $410 million on which personal income taxes of $6.5 million are paid. The Wisconsin paper industry itself pays annual taxes to local, state and federal governments of approximately $55 million. Wisconsin manufactures more than 11% of the total production of pulp and paper products in the United States and is the number one paper producing state in the country. Although the paper industry is obviously an extremely critical one to the state, it is not normal for the lay person or even many technical persons to know a great deal about its manufacturing processes. A number of elements are essential to the paper industry, among them being high concentration of capital investment, skilled labor, sufficient amounts of self-generated or purchased energy, water, and, needless to say, cellulose in the form of either wood pulp or waste paper. Most paper is made from the fibers of trees, harvested from scientifically managed forests of which, within Wisconsin, more than 1.4 million acres are owned by the paper industry and managed under professional management plans. To date, more than 130 million trees have been reforested in the state of Wisconsin by the paper indusry, and, on a current basis, an average of approximately 2 1/2 million trees are being additionally planted each year.

Wisconsin, however, is not only the leading nation in paper making, but also the number one state in paper recycling. At least 19 Wisconsin paper firms recycle fibers to some extent and several firms make a speciality of it--producing papers known widely for their adaptability and strength. A fifth of Wisconsin's annual paper production--about 780,000 tons--is made from recycled, post-consumer wastes. Recycled paper distributed from Wisconsin throughout the nation includes such things as paperboard, corregated boxes, cones, folding cartons, industrial wrappers, solid fiber boxes, napkins, tray covers, roll stock, toweling, tissues,

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test liner, container chip board, and a wide range of fine writing, printing, business and office papers. Some Wisconsin paper makers have been producing recycled paper and paperboard since the turn of the century. As a result of such recycling, wood fiber resources are being extended each year through the ever-increasing use of residue from the manufacture of other wood products such as lumber and plywood. It is estimated that wood chips, slabs, edging, sawdust and the like provide 25% of all the wood used to make pulp.

We face a fiber crisis in this country although, assuming that adequate forests are made available for the harvesting of timber, there is no immediate danger that the nation will run short of trees for paper making in the next several decades. This begs the point, however, that the nation is fast running out of solid waste disposal sites and is continually over consuming its natural resources although, fortunately, our forests are unique in that they are renewable resources.

It should be noted that paper products are about 40% of the nation's solid waste with garbage composing only 24%, metal 10%, glass 12% and miscellaneous items 14%. Since paper is approaching half of the waste bulk, recycling obviously is a technique with great environmental as well as economic potential. New York City alone spends $6 million annually to dispose of outdated issues of New York Times publications. The unfortunate thing is that currently only 22% of the nation's paper is being recycled as compared to 40% during World War II in the United States and as compared to 40% today in Japan and West Germany, the two highest recycling nations in the world.

Should Recycling Be Encouraged

The answer is obvious--it must be encouraged. Reading from Governor Lucey's charge to the recycling task force appointed by him in July, 1971, I quote as follows:

> "The ever-increasing demands upon the supply of our natural resources demonstrates the necessity for re-use of our waste materials. We cannot continue to simply dispose of society's wastes without jeopardizing our entire future. The present methods of solid waste disposal, such as landfill and incineration, pose a threat not only to our supply of natural resources, but also to our air, land, and water. The shortage of land around our urban centers and the increasing levels of air pollutants leave society no choice but to recycle our solid wastes. If the present rate of increase in use of natural resources continues without regard for recycling, we may face a shortage of natural resources in this century.

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A new approach by society and industry is necessary--one which treats wastes-by-products as new sources of raw materials, rather than something to be buried or burned. We need to establish an incentive for recycling that is as attractive as the original manufacturing or selling incentive.

Recycling is a relatively new technology which will require the cooperative efforts of government and industry before it is fully developed. Cities and industries must begin now to develop a means of recycling solid wastes for the benefit of the city as well as the industry. Without a unified effort, total recycling will never be achieved. . . ."

I also quote from the Governor's Executive Order No. 24 issued on July 15, 1971 formulating his Recycling Task Force:

"Whereas, the United States is facing an ever-increasing demand upon the supply of its natural resources;
Whereas, the present methods of solid waste disposal, incineration and landfill, deplete our supply of natural resources and degrade the quality of our air, land, and water;
Whereas, recycling is the best long-range solution to Wisconsin solid waste and other environmental problems;
Whereas, Wisconsin provides an ideal market for recycling with its variety of industry and a large supply of waste materials;
Whereas, industry, government, and the scientific community must make a unified effort to develop recycling in Wisconsin;
Now, therefore, I, Patrick J. Lucey, Governor of the State of Wisconsin, do hereby create the Recycling Task Force and charge the Task Force to develop a plan for a center to recover, reclaim, and recycle all types of solid wastes."

The report of the Governor's Recycling Task Force on Solid Wastes issued in February of 1972 contained on page 26 the following statement:

"It is appropriate to the task force charge to strengthen the traditional role of Wisconsin industry in pulp and paper manufacture. Therefore, it is suggested that a singular opportunity exists here and now for expanding the base of paper manufacture by using essentially recycled fibers" (emphasis added).

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That same report, on page 15, notes that in the 14 counties of Ozaukee, Washington, Milwaukee, Waukesha, Racine, Kenosha, Walworth, Dane, Rock, Jefferson, Outagamie, Winnebago, Fond du Lac and Dodge that we are producing 202 tons of waste newsprint per day, 101 tons of waste magazines daily, 101 tons of waste corregated paper daily, 1,118 tons of mixed paper and other types of corregated paper daily, and 368 tons of wood daily. These are significant amounts. They are shameful amounts. They are volumes and amounts that the American and Wisconsin recycling industries are dealing with and, in the case of some of Wisconsin's paper companies, have been dealing with since the very beginning of the 20th Century.

What has Wisconsin as a state, in addition to its paper industry, done about it. Governor Lucey in June of 1974 signed Chapter 305, Laws of 1973 creating the Wisconsin Solid Waste Recycling Authority. This was a law strongly supported by the Wisconsin Paper Council even though it did not directly affect the economic interest of its members. In that law the Legislature clearly declared that the people of Wisconsin have a right to a clean and wholesome environment and that prevailing solid waste disposal practices (i.e., landfilling, burning, and the like) throughout the state results in unnecessary environmental damage, wastes valuable land and other resources and constitutes a continuing hazard to the health and welfare of Wisconsin citizens.

What Has The Wisconsin Paper Industry Done For The Environment?

Manufacturing any product is not a clean, tidy process. Generally it is noisy, usually it is dirty and generally work with large machinery is involved. It normally takes skilled labor of which Wisconsin is fortunate to have an ample and sufficient supply. The point being, however, that in the manufacturing process certain natural resources are consumed and related by-products are discharged or emitted as a part of the process itself.

Recognizing this impact on the environment on which it depends, the Wisconsin paper industry had expended prior to 1975 approximately $126 million on water pollution abatement equipment. It is the estimate of the industry that within the next five years an additional $153 million at a minimum will be expended for a total investment of approximately $280 million for water pollution abatement equipment alone--not one cent of which is attributable to production equipment. In 1953 an average of 218 pounds of BOD per ton escaped to Wisconsin rivers from paper mills. In 1972, this figure had been reduced to 65 pounds per ton with the ultimate figure expected to be reduced even further yet. This is doubly remarkable when one considers that pulping can produce up to 700 pounds of BOD per ton of pulp produced and that the paper industry in 1953 was producing only 2.8 million tons of paper and paper products per year whereas in 1972 its production had

increased to almost 4 million tons annually. The removal of suspended solids from wastes also showed a marked decline between 1953 and 1972 from 92 pounds per ton to 39 pounds per ton--with the ultimate amount to decline yet in the future.

As to air pollution, prior to 1975, the Wisconsin paper industry had invested approximately $34 million in air pollution abatement equipment and anticipates that between 1975 and 1980 it will invest minimally an additional sum in excess of $60 million. In rough figures, therefore, the paper industry in Wisconsin alone will have spent by 1980 approximately $375 million for air and water pollution abatement equipment--approximately $8,200 per employee--on what is very environmentally necessary, but very absolutely unproductive, equipment.

The Issue Of Polychlorinated Biphenyls

By this time in the testimony, I think I need spend little time in identifying polychlorinated biphenyls (PCBs) or their historical uses. I do wish to point out, however, that for an extended period of time these substances have been used, particularly within the electrical industry for example, for purposes that have been deemed and are still deemed to be socially acceptable and beneficial in terms of their ability to reduce explosion and fire and to protect human life and human welfare. One of the many varied uses of PCBs prior to 1971 had been in carbonless duplicating paper which has accumulated in the files of many businesses and numerous governmental agencies--and have stayed there for some time but, from time to time, also get sorted out and become part of the solid waste chain.

It has only been relatively recently that attention has been drawn to PCBs because of their widespread distribution in the environment. As a matter of fact, many commentators have referred to the fact that PCBs have become ubiquitous and that even a total cessation of manufacturing and the use of PCBs would not result in the rapid disappearance of the material--i.e. ultimate disappearance from the environment will take many years regardless of any total ban, even if a total ban were desirable which it most emphatically is not.

At this point I wish to make very clear what should be obvious by this time--waste paper collectors and recyclers do not manufacture PCBs nor do they use them in their manufacturing process. However, to the extent that certain trans-

At this point several very critical issues must be noted by the Wisconsin Department of Natural Resources, namely:

1. Quoting from the May, 1972 report of the Interdepartmental Task Force on PCBs entitled Polychlorinated Biphenyls and the Environment (page. 14).

   ". . . more scientific information about PCBs is needed. . . . Only general statements can be made about how PCBs reach the environment, how they reach target organisms, and how much is present."

   We could not more fully concur with this analysis of the scientific level of knowledge, or lack thereof, about PCBs nor more fully offer our assistance as an industry to cooperate with government to achieve an effective system for assessing and controlling PCBs.

2. You must understand that a very small portion of the total amount of PCBs manufactured domestically by Monsanto Company were used for carbonless paper which is the chief assumed source by which waste paper contains the PCB contaminant. Arochlor 1242, by weight containing relatively lower amounts of chlorine, than other domestically produced and sold PCBs, was used in the production of carbonless paper. Between 1958 and 1971, at which time the use of PCBs in the manufacture of carbonless paper was ceased, approximately 47.85% of Monsanto's PCB production was of Arochlor 1242 (316,068 lbs.). However, of its entire domestically sold production during those years, only 21.62% was used for "plasticizer applications." Plasticizer applications include not only use for carbonless paper, but also for adhesives, textile, surface coatings and sealants. Therefore, we know that between 1958 and 1971 something considerably less than 68,334 lbs. of Arochlor 1242 (.2162 x 316,068) was used in the manufacture of carbonless paper. Put another way, something considerably less than 10% of Monsanto's total PCB production (68,334 lbs. versus 667,514 lbs. of total production) was used in the manufacture of carbonless paper.

3. To be emphasized repeatedly, since 1971, no PCBs of any kind have been used to manufacture carbonless paper.

4. Arochlor 1242 used in the manufacture of carbonless paper has significantly different structural constituent characteristics

whereby its stability and persistence are less and its degradeability appears to be significantly higher than its comparatively more highly chlorinated arochlor relatives.

5. Based on studies reviewed by me, it is not Arochlor 1242, the carbonless paper arochlor, which has commonly been found in large concentrations in commercial fish.

All of the above can be restated concisely as follows--only a small portion of total PCBs domestically produced were utilized for purposes of manufacturing carbonless paper and, as to those particular arochlors, they are relatively less stable and persistent, appear to be more degradeable, and are less susceptible to accumulation in fish than are their related, more highly chlorinated arochlors. As a result, the impact of the waste paper recycling industry on the issue of PCBs, when taken in this light, is substantially put in more proper and positive perspective.

Proposed DNR Regulations

Many studies have been published and many articles written relating to the existence of PCBs in the environment. The presence of PCBs in the environment, however, should not be assumed to imply negative effect. In fact, again quoting from Polychlorinated Biphenyls and the Environment (page 17): "At the levels in which they are found, PCBs do not appear to present an imminent hazard." Again based on studies reviewed by me, I have seen no conclusive published report relating to the death of any wildlife species because of the presence of PCBs. The only reported mortalities have been those achieved in laboratory experiments. Most of those laboratory studies related to the higher chlorinated, more persistent PCBs while most if not all of the effluents proposed to be regulated contain primarily the lower chlorinated, less persistent types.

No one can deny that the proposed DNR regulations are aimed most directly at the waste paper recycling industry in Wisconsin. Based on appearance, very little thought went into the drafting of these regulations and, in fact, they would appear not to represent the approach recommended by the DNR Staff which is, presumably, more qualified than many lay persons, whether on the Board of the Department of Natural Resources or not, to make judgments of a technical nature. The adoption of either proposed regulation would be an economic catastrophe for the paper industry in Wisconsin.

Being concerned about the environment and attempting to do something about it are responsible goals and actions. As I have pointed out, the paper industry has been the leader in both areas in the past and will continue to do so in the future. However,

I must comment that the suggestion of these so-called alternative regulations, with the full force and effect of the prestige of the Environmental Quality Committee of the Department of Natural Resources Board, can be classified as nothing but irresponsible. "Current scientific knowledge gained from laboratory animal experiments is often inadequate to allow reliable interpretation of the data in terms of possible effects on man. The scientific basis for interpreting such tests must be improved. The situation regarding PCBs is not significantly different from the problems of other toxic substances which cause concern when they come into contact with man, his food and his environment. Certainly continuing vigilance on the part of the Government agencies, industry, universities and many other agencies both within and outside the government will all be necessary to achieve an effective system for assessing and controlling the hazards of toxic substances including PCBs." That language was also quoted from Polychlorinated Biphenyls and the Environment published in May of 1972 (page 5).

At this point I would like to ask the Department of Natural Resources:

1. What is the toxic level of concentration and the degree of exposure to humans and to wildlife as they relate to both mortality and imminent hazard to health?

2. What is the background level of PCBs in Wisconsin waters?

3. What arochlors constitute these background levels?

4. In the fish being tested in Lake Michigan, Lake Superior and Lake Pepin and in various Wisconsin rivers, what arochlors are being detected?

5. What is the background level of Arochlor 1242 in the waters most suspected of contamination by the Department?

6. Is it not true that Arochlor 1242 is more degradeable and less persistent in the environment than its more highly chlorinated relatives?

7. Under what provisions of the Wisconsin Statutes do you propose to ban the discharge of PCBs?

8. Do you propose, as you are required to do, to issue an environmental impact statement pursuant to Wis. Stat. 1.11 prior to your promulgation of any PCB ban?

9. Has not the Department found levels of PCBS in freshly fallen snow--from where does the Department anticipate that these PCBs originated, against whom would the Department seek an injunction against such emissions, and would the same be constitutional in light of the requirement of the separation of church and state in America?

An ancillary problem that I am sure the DNR Staff has contemplated is the alternative methods of dealing with PCBs. Obviously, burning contaminated waste paper is not the solution because unless such burning is done at extremely high temperatures and in extremely efficient incinerators--the PCBs will simply be emitted into the atmosphere to once again fall on land or into the water. Likewise, landfilling is not the solution because of the quantities of waste paper involved thereby necessitating more landfills. Again using material from the Interdepartmental Task Force Report on PCBs issued in May of 1972 (page 14), it has been estimated that the total injection of PCBs into the American environment between the years 1932 and 1972 was approximately 30,000 tons in the atmosphere, 60,000 tons in the water and 300,000 tons to landfill sites. Of this total, remaining residues in 1972 were calculated to be approximately 20,000 tons in the air (which would ultimately be redistributed on either land or in water), 30,000 tons in water and approximately 250,000 tons in dumps. The conclusion is obvious, that PCBs in water are degrading more quickly than are those emitted into the air or placed in the land.

Concluding Remarks

I think the time has come for us to recognize that we all know less than we would like to know about PCBs because of their persistence and because of uncertainties about their impact, the new production of this substance has all but been eliminated and is now used for only very specific purposes. An inventory must be made of where PCBs are coming from, the type of arochlors that are being discharged, emitted and landfilled, the best methods of decreasing these discharges, emissions and landfillings and to put some proper perspective on the existence of this substance in our environment. In the last legislative session alone, SB 339 and AB 463 were introduced and would have required the state to purchase paper with a certain specified amount of recycled fiber in it. In addition, if you will view the current letterhead stationery of the Wisconsin Department of Natural Resources, you will note that it says on the bottom: "This is 100% recycled paper". If you will look further at the notices for board meetings of the Wisconsin Department of Natural Resources, you will likewise note the statement that: "This is 100% recycled paper". Ladies and gentlemen, you are promoting the use of recycling. We thank you. You are also promoting the disposal of PCBs. Let us take a reasonable approach to this problem together.

I appeal to you for reason. Let us admit together that we do not know enough, at least at this point, to take a stand such as proposed in these ill thought out proposals. The result would be economic catastrophe for a significant portion of Wisconsin's paper industry. The commitment of this industry is to Wisconsin and to its environmentally pure future. It has invested and will invest over $300 million prior to 1980 to accomplish that goal. It further has a goal, common with Governor Lucey, to decrease landfill sites and to recycle to the maximum solid wastes so as to preserve our natural resources and to beautify our state. It is indeed unfortunate that more reasonable and more well thought out proposals for regulations have not been brought forth so that some attempt could have been made even at the point of these hearings to work out some kind of meaningful regulations. We only hope, after the review of the entire hearing record with written material to be submitted subsequent to the oral testimony, that realistic, reasonable, feasible and responsible regulations will be proposed by the Department of Natural Resources which will bolster its reputation as a defender of the environment while at the same time not place it in a position of ridicule because it has suggested regulations so badly researched that they become "negotiable" prior to the time they are published for hearing.

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