report and rejected such matter to the Senate and the Senate has affirmatively, by resolution, indicated approval of the respective reprogramming or transfer of funds for such purposes.

SEC. 2. Nothing contained in the first section of this resolution shall require that any report, or the contents thereof, made by any committee of the Senate in accordance with such section be publicly disclosed.

SENATE CONCURRENT RESOLUTION 84—SUBMISSION OF A CONCURRENT RESOLUTION AUTHORIZING THE PRINTING OF A REPORT

Ordered to be held at the desk.

Mr. HELMS (for himself and Mr. MONDALE) submitted the following concurrent resolution:

S. CON. RES. 84

Resolved by the Senate (the House of Representatives concurring), That the report of the proceedings of the forty-seventh biennial meeting of the Committee of American Historians of the Deaf, held in Greensboro, North Carolina, from June 22, 1975, through June 27, 1975, be printed with illustrations as a Senate document. Five thousand five hundred additional copies of such document shall be printed for the use of the Joint Committee on Printing.

ADDITIONAL COSPONSORS SUBMITTED FOR PRINTING

TOXIC SUBSTANCES ACT—S. 776

AMENDMENT NO. 1294

(Ordered to be printed and *referred* to the Committee on Commerce.)

Mr. NELSON. Mr. President, scientific evidence makes it increasingly clear that the PCB's—polychlorinated biphenyls—pollution problem must be one of the next actions ever to confront the environment and to threaten human health.

We can no longer afford to wait and debate the risks versus the commercial benefits. As in the case of DDT, it is apparent that the risks to human health and the environment far exceed the benefits. More importantly, alternatives to the commercial use of these substances are being developed.

For this reason, I am proposing that all nonenclosed uses of PCB's cease immediately and that all enclosed uses be ceased within 1 year of enactment of a bill requiring such cessation, assuming that viable and safe alternatives exist for such substances.

WHAT THE BILL WOULD DO

First, ban all nonenclosed uses of PCB's immediately. This would include but is not limited to such uses as in carbonless paper, paints, coatings, soaps, copying ink toners.

Second, ban all enclosed uses 1 year after enactment, if the Administrator of EPA finds there are safe and viable alternatives available.

Third, require EPA to define "enclosed," based on minimum leakage.

Fourth, require labeling of all products containing PCB's, which products are manufactured after the issuance of such labeling, to indicate, noting that they contain PCB's and must be disposed of in accordance with Federal regulations.

Fifth, require regulations controlling disposal of PCB's and PCB-containing products, and recycling of PCB's.

Sixth, encourage research into the development of alternatives to PCB's for industrial uses.

All purported PCB's would be subject to the same restrictions.

The goal is to eliminate the use of PCB's in the long term and to minimize their pollution effect.

It is preferable not to enact legislation on a substance-by-substance basis. However, the PCB problem shows no sign of abating, and it has become so severe, that it is necessary to address the problem head on, as we were forced to do with DDT.

THE PROBLEM

Nathaniel Reed, Assistant Secretary of Interior for Fish, Wildlife and Parks, stated at a conference in Chicago on PCB's November 19–21:

We must immediately respond to the danger posed by PCB's; they represent an ubiquitous degenerative influence on our national health and well being. . . . Our food and water supplies are contaminated; our health is threatened; and we are faced with "environmental stress" about which we know comparatively little.

At least 10 million pounds of PCB's are lost into the environment each year through vaporization, leaks, and spills, according to estimates reported by Thomas E. Kopp, a chemist with the Environmental Protection Agency's Office of Toxic Substances.

At least 10 plants are dumping PCB's into U.S. waterways and another two are discharging the chemicals in municipal sewage treatment systems, according to the EPA.

PCB's are chemical compounds widely used in both closed and nonclosed commercial uses because of their stability, fire resistance, and electrical insulating properties.

They have been found to be far more resistant than DDT to degradation by natural forces. Thus, they are building up in concentration in the environment, wildlife, and human tissues.

They have been found, in scientific tests, to cause severe skin and liver problems in humans.

University of Wisconsin Medical School researchers, Dr. James R. Allen and Deborah Barsotti, have demonstrated that very low PCB levels are dangerous to primates, causing facial swelling, loss of hair, acne lesions within 1 month, birth defects, miscarriages, still births, and death.

Other research shows similar problems with fish and wildlife, such as reproductive failure identified in herring gull colonies around Lake Ontario.

The Food and Drug Administration admits that PCB's have infiltrated our food, milk, water, and meat, to the extent that the FDA has been forced to set tolerance levels of allowable amounts of PCB's in the food supply.

Despite efforts to voluntarily limit the commercial use of PCB's to closed systems and to reduce U.S. production—by the only U.S. manufacturer, Monsanto Co.—the pollution has not been reduced. This is due in part to their indestructibility; to the fact that U.S. users of PCB's are obtaining supplies from foreign producers for nonenclosed uses, such as in hand soaps, copying ink toners, and other products; and to the fact that PCB's still are being spilled or leaked, either accidentally or directly, into the environment.

A 1972 report by a Federal Government task force urged a ban on all PCB uses except in closed electrical systems, restricting them to "essential or nonreplaceable uses which involve minimum direct human exposure, since they can have adverse effects on human health."

The commercial fishing industry in the Great Lakes and elsewhere are threatened with extinction, unless the PCB's problem can be alleviated or eliminated. Thousands of pounds of Great Lakes fish have been condemned as unsafe because of PCB contamination, and New York State conservation officials warn against eating Hudson River fish.

Water supplies throughout the Nation are contaminated far in excess of safe drinking criteria.

There has not been adequate monitoring of the extent of the pollution, nor of the sources of the pollution.

A continuing widespread accumulation of PCB's in water, sediment and fish appears to be occurring. A significant proportion of the nation's waters are now affected and will continue to be.

As stated at the November Chicago PCB conference by Dr. David Kell, Director, National Institute of Environmental Health Sciences:

Thus, in a relatively short period of time we have a man-made compound introduced into commerce for a relatively narrow purpose, a closed use, broadened through its applications and discovered to be hazardous to animals, birds, fish, and to man by studies more than one generation. We find also the all-too-frequent circle of progress: product development, distribution, use, and resulting hazard to human health.

FACTS

PCB's have been banned for most uses in Japan—after a 1968 poisoning of more than 1,000 persons who had eaten PCB tainted rice cooking oil.

Alternatives have been instituted in Japan, and are being developed in the United States. For example, no-PCB transformers have been used for years instead of PCB-filled transformers.

Use of alternatives to PCB's may require retooling and redesigning of some electrical products and equipment which now use PCB's.

PCB's can be destroyed, in special incinerators at very high temperature.

PCB's can be recycled.

We can no longer afford to wait. Strict regulation of PCB's, with an ultimate goal of eliminating their use and release and thus, of reducing their pollution of the ecosystem, must be undertaken immediately.

There is no dispute over their toxicity to wildlife and to humans. Their further contamination with the risk that future human generations will experience genetic damage and birth defects far outweighs the commercial benefits of their continued use.

The PCB's problem is an example of the need for toxic substance con-

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laws, which must provide a means to systematically assess the potential impact on public health of substances prior to their use. Such laws also must provide authority to limit the use and distribution of substances.

For this reason, the bill is proposed as an amendment to the Toxic Substances Act, which has been pending before the Congress for more than 5 years. If that had been enacted, the Federal Government would now have the authority to regulate PCB's.

Mr. President, I ask unanimous consent that the text of the amendment and the following articles describing the PCB problem be inserted into the Record following these remarks: "The Spreading Menace of PCB's," by Robert H. Boyle, Sports Illustrated, December 1, 1975, page 20; Air/Water Pollution Report, November 24, 1975, page 463, and December 1, 1975, page 475; Environmental Report, September 8, 1975, page 67; an article from the Milwaukee Journal, November 22, 1975; a list of accidents caused by PCB's from a conference report of the Organization for Economic Cooperation and Development, Paris, 1973; an editorial from the Milwaukee Journal, August 11, 1975; and an article from the Milwaukee Sentinel, November 11, 1975.

There being no objection, the amendment and material were ordered to be printed in the Record, as follows:

AMENDMENT NO. 1324

On page 31, between lines 4 and 5, insert the following:

(c) PCB Research Programs.—The Administrator shall, at the earliest practical time after the date of enactment of this Act, undertake and support programs of research to develop effective and safe alternatives to the use of polychlorinated biphenyls (PCBs). The Administrator also shall undertake an intensive research program for the development of safe methods for the disposition of products containing polychlorinated biphenyls (PCBs); and for control or elimination of PCB hazards, which presently threaten the environment.

On page 36, line 5, insert "(a)" immediately after "Sec. 16.".

On page 39, between lines 22 and 23, insert the following:

(b) It shall be unlawful for any person to—

(1) use any polychlorinated biphenyl (PCB) in commerce, except as provided in subsection (c) of this section;

(2) distribute in commerce any product which contains (in a totally enclosed manner) a polychlorinated biphenyl (PCB) unless such product bears a label clearly indicating, in accordance with regulations issued by the Administrator, that such product (A) contains a polychlorinated biphenyl (PCB), and (B) may not be disposed of except in accordance with regulations issued by the Administrator; or

(3) reuse any polychlorinated biphenyl (PCB) except in accordance with regulations issued by the Administrator.

(c) The prohibition contained in subsection (b) (1) of this section shall not apply in the case of the use of any polychlorinated biphenyl (PCB) in commerce—

(1) for a period of one year after the date of enactment of this Act if such chemical is used in a totally enclosed manner, and

(2) for any period or periods beyond such one year period if the Administrator (A) authorizes the continued use of such chemical for such period or periods because of a determination by him that no safe and effective substitute is available as a replacement for such chemical, and (B) such chemical is used in a totally enclosed manner.

On page 53, between lines 18 and 19, insert the following:

REGULATIONS

SEC. 26. (a) Definition of "Polychlorinated Biphenyl (PCB)".—The Administrator shall, within 30 days after the date of enactment of this Act, define by regulation the term "polychlorinated biphenyl (PCB)".

(b) Definition of "Totally Enclosed Manner".—The Administrator shall, within 30 days after the date of enactment of this Act, issue regulations defining the term "totally enclosed manner" for purposes of section 16(b) and (c) of this Act. The Administrator shall define such term so as to insure that any leakage of a polychlorinated biphenyl (PCB) from its enclosure will be in such an insignificant amount as to be harmless.

(c) Labeling of Products Containing PCBs.—The Administrator shall, within 30 days after the date of enactment of this Act, issue regulations specifying the manner in which products containing polychlorinated biphenyls (PCBs) shall be labeled so as to clearly indicate to the purchasers and users of such products that such products contain polychlorinated biphenyls (PCBs) and that such products may not be disposed of except in accordance with regulations issued by the Administrator.

(d) Disposal of Products Containing PCBs.—The Administrator shall, within 30 days after the date of enactment of this Act, issue regulations prescribing approved methods for the disposition of products containing polychlorinated biphenyls (PCBs).

(e) Reuse of PCBs.—The Administrator shall, within 30 days after the date of enactment of this Act, issue regulations prescribing the conditions under and the manner in which polychlorinated biphenyls (PCBs) may be reused.

On page 53, line 20, strike out "Sec. 26" and insert in lieu thereof "Sec. 27".

On page 2, in the table above line 1, strike out "Sec. 26" and insert in lieu thereof "Sec. 27".

[From Sports Illustrated, Dec. 1, 1975]

THE SPREADING MENACE OF PCB

(By Robert H. Boyle)

There was ironic laughter in the coffee shops of Chicago's Pick-Congress Hotel on last Friday when Nathaniel P. Reed, Assistant Secretary of the Interior for Fish and Wildlife and Parks, glowered at the menu and said, "Ah, fresh salmon sandwich!" Only an hour before, at the concluding session of the National Conference on Polychlorinated Biphenyls (PCBs), Reed had delivered a blistering speech on PCB contamination of fish, including Great Lakes salmon.

"The problem is a national problem," Reed had emphasized to some 40 scientists, bureaucrats and conservationists. "I am deeply shocked by the pervasiveness of PCBs: they are literally everywhere. I am very troubled by the exceedingly high levels found in fish in all our drainage systems, and it does not mean just the Hudson and the entire Great Lakes system, but the Merrimac and Connecticut rivers of the Atlantic Coast, the Mississippi and Ohio rivers of the Midwest, the Columbia River system in the northwest, the Rio Grande in the West, the Rio Grande and other Gulf Coast streams . . . even the Yukon in Alaska."

Reed called for the elimination of all sources of PCBs in the U.S. environment within three years. With a candor unusual for a federal official, he criticized the sponsor of the conference, the U.S. Environmental Protection Agency, which has done little protesting, and the U.S. Food and Drug Administration, which has established a "tolerance" level of five parts per million of PCB in fish for human consumption.

"Quite frankly," Reed called his speech "I am thoroughly disgusted by the gumming of teeth, wailing and tutsying of hands by the agencies which have the enforcement responsibilities, a word on behalf of the lowbrows but concerned American people—get on with it!"

PCBs are chlorinated hydrocarbon compounds used by industries throughout the world because of their resistance to heat. More durable than DDT, PCBs are a potent menace to animal organisms, ranging from invertebrates to man (SI, Sept. 1). In 1968 an estimated 1,200 Japanese came down with *Yusho* disease after using rice oil heavily contaminated with PCBs. The symptoms reportedly included stillbirths, undersized infants, loss and joint deformities and various neurological disorders including loss of libido.

In this country, in a recent experiment on laboratory rats, PCBs caused liver cancer. Last week in Chicago the scientist in charge of that experiment, Dr. Bernard L. Knutsborgh of the U.S. Public Health Service, delivered a paper in which she warned, "Because of these findings in experimental animals, ingestion of PCBs in humans must be curtailed." The EPA estimates that about half the American public now carries around with it from one to three parts per million of PCBs in its fatty tissue.

Another speaker at the Chicago meeting was Dr. James R. Allen of the University of Wisconsin Medical School, who fed eight female rhesus monkeys a diet that included 2.5 ppm of Aroclor 1242 (one of the nine tradenamed PCB compounds made by the sole domestic manufacturer, Monsanto Industrial Chemicals Company) for six months. They were then bred to normally fed male rhesus monkeys. Two females reabsorbed their fetuses, one suffered a stillbirth, and the five infants born were all undersized. Two of the infants died while nursing. The three survivors are now eight months old, and although they have been on a PCB-free diet for four months, preliminary observations by Dr. Diane H. Norback, a colleague of Dr. Allen, indicate that the youngsters are hyperactive.

The PCB problem, which has been growing for years, began to receive nationwide attention last summer when Ogden R. Reid, commissioner of the New York State Department of Environmental Conservation, warned the public against eating striped bass from the Hudson River or salmon from Lake Ontario. Reid issued his warnings after receiving a report from EPA scientists who noted that two General Electric plants at Hudson Falls and Fort Edward were discharging at least 30 pounds of PCBs per day into the river. In September, Reid brought action against G.E. to force the company to reduce the discharge to two pounds a day by Dec. 31 and to zero by Sept. 30 of next year. The action is now before a state hearing officer, and G.E. is contesting it all the way. It is worth noting, however, that in response to a state interrogatory before the hearing began, G.E. admitted, "During the past 10 years, 49 employees have reported to the dispensaries complaining of allergic dermatitis, diagnosed as having been caused by contact with PCBs."

No one really knew that PCBs were present in the world environment until 1966 when Sweden's Dr. Soren Jensen isolated and identified the compounds that had been baffling researchers working on DDT residues. PCBs were then commonly used in a wide variety of everyday products, such as paints, sealants and caulking compounds. In 1971 Monsanto announced it would restrict sale of PCBs to use in so-called "closed cycle" systems, such as capacitors and transformers. U.S. industry turns out more than 100 million capacitors a year, including those for home air conditioners. When junked, such

an item is commonly taken to a dump, where the chance exists that PCBs can leach through the soil to bodies of water. In western New York state several companies have been draining PCBs from old transformers, mixing them with crankcase oil and selling the junk to municipalities to put in roads as a dust suppressant. There is also a report that PCBs have been spread on airport runways in Maryland to prevent skidding in wet weather.

Beyond such practices, there is the danger that transformers can rupture or leak. According to EPA records available in Chicago, a transformer leak occurred on April 16, 1974 on a railroad train running between Philadelphia and Tyrell, Pa. From 10 to 100 pounds of PCBs were spilled. The same type of spillage occurred on July 5 of last year from a transformer leak in Stamford, Conn.

On March 8, 1973, a truck developed a leak in Kingston, Tenn., and 630 gallons of PCBs were spilled. The contaminated soils were recovered in 11,500 drums and sealed in concrete at a cost of $1.7 million. It was paid by G.E., which was shipping the chemical. Local residents also brought damage suits against G.E. and last October a jury awarded them a total of $1,200,000.

The U.S. Department of Defense was involved in a Catch-22 PCB episode with other government agencies in Seattle. On Friday, March 13, 1974 an electrical transformer destined for an Air Force radar station in Alaska, Alaska fell on a pier in Seattle and 265 gallons of PCBs slid into the Duwamish River. Defense refused responsibility, so did the U.S. Coast Guard, which has the primary obligation to clean up oil and other harbor spills. The Coast Guard said PCBs were not among the chemicals it was required to recover. The EPA had to hire divers who brought up 70 to 80 gallons of the compound, and in February of this year the Defense Department finally agreed to pay the cost, $148,000.

But recovery from the Duwamish spill is far from ended. EPA officials estimate 60 to 80 gallons remain in the riverbed, and Defense has assigned the job to the U.S. Army Corps of Engineers. The Corps is scheduled to begin dredging 90,000 cubic yards of river bottom sometime around the first of the year. Estimated cost of the project is between a quarter and half a million dollars.

Although the U.S. Food and Drug Administration allows up to five parts per million of PCBs in fish, the U.S. Fish and Wildlife Service regards the presence of a half part per million (.5 ppm) in a fish egg as a sure sign of trouble in a waterway. According to Charles R. Walker, Senior Environmental Scientist with the Service, who delivered two papers in Chicago, trouble spots on the Atlantic Coast range from the Merrimack River in Massachusetts to the St. Johns in Florida. On the Gulf Coast afflicted rivers extend from the Rio Grande east to the Apalachicola in the Florida panhandle. The Mississippi-Missouri system has its hot spots. On the West Coast, the Sacramento, Rogue, Columbia and Snake River have problems and they abound in the Great Lakes region and in the St. Lawrence.

Last week, Canadian officials announced they were dropping edible fish tolerance level from 5 ppm to two ppm and might well close the eel fishery in the St. Lawrence.

Obviously, some rivers are in worse shape than others. Here are some PCB values for fish sampled by the U.S. Fish and Wildlife Service: carp, Cincinnati, Ohio River, 133 ppm; two channel catfish, Marietta, Ohio, Ohio River, 36, 77 ppm; walleye pike, Natrium Heights, W.Va., Allegheny River, 36 ppm; white perch, Camden, N.J., Delaware River, 10 ppm; pizzard fish, Elizabethtown, N.C., Cape Fear River, 20 ppm, small mouth buffalo, Redwood, Miss., Yazoo River, 75 ppm; yellow perch, Lowell, Mass., Merrimac River, 98 ppm; goldfish, Poughkeepsie, N.Y., Hudson River, 213 ppm.

The Fish and Wildlife Service does not sample every stream in the country. It extends itself to maintain even the 100 monitoring stations in existence—but research by other agencies reveals other trouble spots. Half the lake trout analyzed from Lake George, N.Y. have more than 5 ppm. And eggs of striped bass taken in 1972 from the Rantiocke and Choptank Rivers on the supposedly unpolluted eastern shore of Maryland had PCB levels that ranged from 9.8 to 20 ppm.

For a number of years the Fish and Wildlife Service also has been monitoring birds. Every starling tested has contained PCBs. Examination of mallard and black duck wings show the Atlantic Flyway has the most severe problems, at least for waterfowl. The mean value for black duck wings is 1.56 ppm, while mallards averaged 1.26 ppm. The values are slightly lower for the Mississippi Flyway, and lower still for the Central and Pacific.

For all the damning data produced in Chicago, some bureaucrats acted in bizarre fashion when their turns came to speak. Walter Sherbet, director of the Standards and Regulations Evaluation Division in the EPA, said, "I don't know what we're going to do." Dr. Albert O. Kolbye, associate director for Sciences, Bureau of Foods, FDA, said, in all seriousness, "We are the straight men in a bad joke." Dr. Kolbye is the FDA official who sets the PCB tolerance levels for human foods.

The weeks ahead doubtless will reveal even more grim news about PCBs. A hearing by the House Subcommittee on Fisheries and Wildlife Conservation and the Environment is scheduled to start this month in Washington; and in New York, Ogden Reid continues his own high-state hearings.

If there is any measure of comfort in all this, it is that Soviet bureaucrats must be more inefficient than most of ours. Just recently a delegation of Soviet scientists visited one of the finest labs in this country. They were shown everything the lab had on PCBs and left loaded down with papers. Before returning home, they stopped at the Soviet embassy in Washington, where all the papers were taken away from them.

EPA Says 10 Million Pounds of PCB's Enter Environment Yearly

At least 10 million pounds of polychlorinated biphenyls are lost into the environment each year through vaporization, leaks and spills, Thomas P. Kopp, a chemist with Environmental Protection Agency's Office of Toxic Substances, estimated during the opening of EPA's conference on PCBs in Chicago last week. Outlining the extent of the PCB problem, Kopp said that at least 16 plants are dumping PCBs directly into U.S. waterways and another 100 are discharging the chemicals into municipal sewage treatment systems. Since PCBs are not removed by any known sewage treatment process, they are assumed to remain in sewage effluent.

EPA Administrator Russell E. Train took the opportunity of the conference to urge adoption of federal toxic substances control legislation. He noted that in 1972 a Federal task force on PCBs urged a ban on all uses of PCBs except in closed electrical systems, and early passage of toxics control legislation to provide regulatory authority for dealing with problems posed by PCBs and other chemicals. Action was taken by the Food and Drug Administration and EPA to lower PCB levels in food and water, and by other countries to limit PCB use overseas, he added.

Such actions were expected to "take care" of the PCB problem, Train said, but "instead more than three years later, we find that, although PCB levels in food have steadily declined, PCBs are present in our environment to a far greater degree and at higher levels than we have previously thought. . . . The evidence we have accumulated over the past three years has underscored our original concern over the toxicity of PCBs and over the potential health hazard posed by the presence of high PCB concentrations in our waterways, in water supplies and in fish.

Without authority to take control legislation, an estimated 600 chemicals are being introduced into commercial use each year with no "systematic, advance assessment of their potential impact upon public health," he pointed out. "We find ourselves without the authority we need to really cope with the problems posed by PCBs—the authority to limit selected uses and distribution of PCBs, as well as to require testing concerning the health and ecological effects of proposed substitutes."

There is a possibility of ordering the oldest plants to cease the discharge of PCBs under Section 301, the emergency powers provision of the Federal Water Pollution Control Act, but Train expressed hesitancy of using that provision. "Conceivably, it could give us the authority to halt PCBs—but there is a question as to whether it would hold up in court," Train said. "I am not entirely decided on whether we can use it—it would be a very difficult route to go."

Ethyl Calls for Immediate Action on PCB's

Questioning the wisdom of waiting until conclusive evidence demonstrates a human health threat from polychlorinated biphenyls before stringent regulation of the substance is undertaken, Assistant Secretary of Interior for Fish, Wildlife and Parks Nathaniel Reed contended that "we must immediately respond to the dangers posed by PCBs, which represent an ubiquitous degenerative influence on our national health and well being," during Environmental Protection Agency's conference on PCBs last month (ACW PG, Nov. 24, 1975, p. 463). Reed insisted that "our food and water supplies are contaminated, our health is threatened; and we are faced with 'environmental stress' about which we know comparatively little," and action must be taken.

Immediate goal of regulators should be the elimination of all sources of PCBs in the environment within three years, Reed said. Toward this end, he supported recommendation by the Lake Michigan Toxic Substances Committee for a national ban on use of all domestic and imported PCBs other than in transformers and capacitors. Latter uses should be reviewed in light of potential replacement products, Reed noted, adding that prior to use, substitutes must be subjected to intensive evaluation to determine hazards associated with their potential loss to the environment.

For the long term, Reed pointed out, legislation that will preclude new PCBs from being discharged into the environment must be pursued. "The passage of an effective toxic substances act and the complete control of PCB importation are imperative to the health of the American people." A subtance-by-substance approach to control of toxics only delays and hampers efforts to regulate the occurrence of poisons in the environment to be concluded.

While the conference was in progress, Environmental Defense Fund and National Resources Defense Council filed a petition with the Food and Drug Administration in Washington seeking an immediate lowering of permissible levels of PCBs in human food and leading to an eventual ban on food containing those chemicals. First EPA action should be to lower the current permissible level of 5 parts per million of PCBs in fish, petition said, citing high levels of PCBs found in fish from Lake Michigan and in

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Hudson River. In Canada, Department of National Health and Welfare announced establishment of temporary guidelines of 2 ppm for PCBs in fish in that country. DNHW explained that only certain freshwater species from localities in the Great Lakes and St. Lawrence River have a PCB problem and that levels of the chemicals in other foods have been declining.

INCREASE EXPLAINS EPA RULE ACTION

Explaining EDF and NRDC request for lower levels of PCBs in food, Dr. Joseph Highland, director of EPA's toxic chemical program, explained that "quick and continuing action by the EPA to lower levels of PCBs permitted in food will not only reduce the risk to consumers from involuntary exposure to a potential human carcinogen, but will also educate the public and governmental regulatory agencies regarding the need to eliminate entirely continuing environmental contamination with PCBs from whatever source."

At the Chicago conference, NRDC's A. Kerim Ahmed said the environmental group supports not only a phaseout of all uses of PCBs but also a ban on import and export of PCBs; development of PCB use and consumption inventory to pinpoint all discharges of the substances into the environment; restricted program of monitoring and surveillance of PCBs in fish, wildlife and foods by state and Federal agencies; moratorium on all dredging of river bottoms until a study is conducted to examine resultant resuspension of PCBs in river water; promulgation by EPA of toxic standards for PCBs such that water in receiving streams has a maximum 0.001 parts per billion level; and swift passage of toxic substances control legislation.

Reporting on reduction of PCB levels in foods as a result of ban on PCBs in packaging, and nonclosed systems, FDA's O. F. Jelinek and J. F. Cornelissen said monitoring programs in fiscal years 1973, 1974 and 1975 indicate that PCBs now contaminate to far fewer types of food than formerly, and that the rate and level of occurrence of PCBs have declined very drastically in all categories except fish."

Comprehensive fish survey conducted in fiscal 1972 reveals which species and geographical areas are of concern in regard to PCBs, they said, but significant trends are difficult to determine. After study of primarily commercial fish species, survey found that more than 70% of samples contained no PCBs; about 3% contained over 1 ppm and 0.6% more than 5 ppm of PCBs. Jelinek and Cornelissen said that the only fish which contained more than 5 ppm of PCBs were carp, with the maximum level 20.5 ppm.

Comparison of all samples of domestic fish in FY '72 to FY '75 showed that "the percent of fish samples containing PCBs decreased, but on the other hand, the percent of PCB-containing samples which were above 5 ppm increased. Significantly, all these samples were from the distinct Au the Great Lakes area, and included such species as chubs, carp and coho salmon."

[From Environmental Report, Sept. 8, 1975]

PCB HAZARD

The Environmental Protection Agency is stepping up its efforts to investigate and recommend controls for polychlorinated biphenyls (PCBs), in the wake of "new evidence" that the chemicals may be more toxic and prevalent than previously thought. The decision follows a series of recent actions by state and Federal agencies, including the seizure of thousands of pounds of Great Lakes fish by the Food and Drug Administration, and a warning against eating Hudson River fish by New York State conservation officials.

"A continuing widespread accumulation of PCBs in water, sediment and fish appears to be occurring," EPA analysts warn in a study to be presented later this month. "A significant proportion of the nation's waters are now affected and will continue to be," they add.

Levels as high as 350 ppm and 165 ppm have been detected in Hudson River and Lake Michigan fish, well in excess of 5 ppm—the FDA's "temporary tolerance" limit.

The principal use of PCB is as an insulating fluid in "closed" electrical systems, and Monsanto, the only U.S. producer, is "believed to be" limiting its sales of the product to such purposes, which would presumably provide a safeguard against environmental contamination.

However, the EPA study noted that there have been five water spills involving PCB leakage from transformers during the past year, and there is a potential hazard from the tens of thousands of capacitors, each containing several gallons of PCBs, awaiting disposal.

More importantly, perhaps, EPA said it has received information that PCB reprocessors may be selling the product for other applications, and that most of the 375,000 or more pounds of imports for 1974 were used for other than closed electrical systems, including investment casting processes, heat exchanger fluids and hydraulic fluids.

The director of EPA's Office of Toxic Substances, G. E. Schweitzer, announced that the agency is asking the National Academy of Sciences to determine whether a drinking water standard for PCBs is needed, and has requested information from 84 companies suspected of using the chemical.

Schweitzer also said EPA is initiating a series of new actions related to PCBs, including a limited national sampling effort, a program to help local conservation agencies develop improved sampling techniques, and an examination of possible substitutes for PCBs.

However, the Natural Resources Defense Council, in a letter to Administrator R. Train, accused EPA of not acting on information it had for more than a year. The environment group urged Train to establish a two-parts-per-billion standard for PCBs within one year and a "zero discharge" standard "in a few years." NRDC is also filing a Freedom of Information request that EPA release the names of the 84 companies believed to be using PCBs.

While EPA currently considers a PCB concentration of 1 ppt in ambient water as an "appropriate goal," the agency maintains that more information is needed before setting a time limit for achieving such a standard.

The increased interest in PCBs by EPA, as well as by conservationists and local health officials, stems in part from two recent studies. One, by researchers at the University of Wisconsin Medical School, reportedly indicates that concentrations of PCBs as low as 2.5 and 5 ppm produce serious adverse health effects in monkeys, including urinary disruptions, lesions, loss of hair, and birth defects.

Another study, headed by Dr. R. Kimbrough of the Center for Disease Control of the U.S. Public Health Service, Atlanta, concludes that one particular PCB, known as Aroclor 1260, produced liver cancer in rats. Findings are expected to be published in the Journal of the National Cancer Institute.

The PCB issue was also heightened in May when a Michigan-based committee, composed of state and Federal officials, recommended that PCBs be banned in almost all uses.

The Lake Michigan Toxic Substances Committee said PCBs have remained at high levels in fish and industrial and municipal effluents, despite programs to locate sources, eliminate discharges and recommend proper handling and disposal procedures.

[From the Milwaukee Journal, Nov. 22, 1975]

PCB BAN URGED BY U.S. AIDE

CHICAGO, Ill.—A top federal fish and wildlife official says the industrial chemicals known as PCBs should be banned nationwide because they are threatening the nation's health.

Nathaniel P. Reed, assistant secretary of the Interior for fish, wildlife and parks, said Friday, "Our rivers and streams are sick."

He said the $175 million Great Lakes fish restocking would not succeed if the chemicals continued in use.

The federal Food and Drug Administration already bans the commercial sale of any fish with a PCB content of five parts per million, and Canada has a two parts per million limit.

Reed, addressing a national conference on PCBs organized by the Environmental Protection Agency (EPA) and other federal agencies, said polychlorinated biphenyls, or PCBs, threatened to wipe out fishing in the Great Lakes within a generation.

"Nothing short of immediate drastic action will enable us to raise anything better than lakes full of contaminated fish," Reed said.

PCBs have been widely used as insulating fluids in certain electrical equipment and in hydraulic fluids, lubricants, heat transfer fluids, and as plasticizers in adhesives, sealants, printing inks, coatings and waxes.

Earlier this week, the EPA for the first time identified 10 industrial dischargers of PCBs into the nation's waters and said 24 other electric equipment makers discharged PCBs into sewage treatment plants.

But, said Thomas Kopp, an EPA chemist, "you're only looking at the tip of the iceberg when you look at the manufacturer."

He told the conference that most PCB pollution occurred through the disposal of products in which the chemical is used.

"For example," he said, "when you throw a ballast in that fluorescent light above your head when it's replaced. That's a capacitor. It's thrown in the trash somewhere and ultimately, through runoff, the PCB finds its way to the lakes and streams."

TRYING TO RESTRICTIONS

Environmentalists said the PCBs had been found to cause reproduction defects and deaths in fish, birds and mammals.

"I think the fish are telling us something," Reed said.

They are stating unequivocally that our rivers and streams are sick. We should not need a election call to realize that our rivers and lakes—the very life blood of our environment—are in mortal danger."

Besides the Great Lakes, high levels of PCBs have been found in the fish of the Hudson River, the Merrimac and Connecticut rivers of the Atlantic Coast, the Mississippi, Missouri and Ohio Rivers of the Midwest, the Columbia in the Northwest, the Rio Grande in the West, the Rio Grande and other Gulf Coast streams and even the Yukon in Alaska, Reed said.

He said he supported the recommendations of the Lake Michigan Toxic Substances Committee for "a national ban on all domestic and imported PCBs destined for uses other than in transformers and capacitors" and their use in transformers and capacitors be "immediately and critically reviewed."

ASSESS SOME ACCIDENTS CAUSED BY PCB'S

June 1968, Japan: Poisoning of about a thousand people (Yusho) as a consequence of leakage of a heat transfer fluid in a rice oil pasteurization plant.

July 1969, U.S.: Occurrence of PCBs in milk from cows given feed treated with herbicides that had been diluted with PCBs.

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April, August 1970, U.S.A.: Occurrence of PCBs in milk from cows given feed that had been stacked in silos coated with PCB-based products.

December 1970, U.S.A.: Occurrence of PCBs in chicken following absorption from PCB-containing plastic wrappings.

July 1971, U.S.A.: Contamination of animal feed (by-product of meat production), as a result of a leak in heating equipment used for pasteurization.

August 1971, U.S.A.: Occurrence of PCBs in turkey and chicken fed PCB-containing products (reason unknown).

July 1971, U.S.A.: Discovery of PCBs in food wrappings due to recycling of copying paper in the production of paper pulp.

From: "Polychlorinated Biphenyls: Their Use Control," organization for Economic Cooperation and Development (OECD), Paris, 1976.

[From the Milwaukee Journal, Aug. 11, 1975]

CLEANING ACT ON POLLUTION

Residents along Lake Pepin on the Mississippi River have been rallied to action by the virtual collapse of the fishing industry there due to excessive levels of polychlorinated biphenyls (PCBs), industrial chemicals that pose a potential danger to human health.

The residents have formed the Citizens for Preservation of Lake Pepin that they're not just demanding a ban on upstream discharge of PCBs. They also have decided to attack persistent sewage overflow of St. Paul, the dumping of sewage and refuse into the river from towboats, inadequate control of siltation and an industrial dredging project that interferes with the spawning of game fish.

Environmental protection is a nice principle that generally gets the sort of lip service that is accorded motherhood and apple pie. But as the Lake Pepin residents belatedly are discovering, it takes overt citizen action to do something about environmental protection. And that last often does not occur until people become direct, personal victims of unchecked pollution.

[From the Milwaukee Sentinel, Nov. 11, 1975]

INSPECTION LAWS BACK AS FISH

(By Quincy Doudiman)

CHICAGO, Ill.— The millions spent to restore fishing on the Great Lakes may all have been wasted, because the fish are likely to be contaminated, the man in charge of much of that spending said here today.

Nathaniel P. Reed, assistant secretary of the Department of the Interior for fish, wildlife and parks, said 17 years and $33 million have gone into restoring the Great Lakes, and that success seems achieved in all the lakes except Lake Ontario.

But, he said, "All our efforts are for naught if their fish cannot be harvested— and we now face this stark possibility."

Polychlorinated biphenyls (PCBs), industrial chemicals that have contaminated the lakes, make many of the fish dangerous to eat, Reed said.

LAKES LOSERS TOLD

"During this century," Reed told a conference on PCBs called by the federal Environmental Protection Agency (EPA), "the fisheries of the Great Lakes have suffered from heavy fishing, relentless predation by the parasitic sea lamprey, the influx of other nonnative species like the alewife and the diminished quality of habitat as a result of waste disposal, uncontrolled shoreline development and numerous other water polluting activities.

"In recent years, however, we have taken significant steps at great financial cost to stop the decline of Great Lakes fisheries and to restore them to their former productivity."

He said control of the lamprey— which once nearly eradicated lake trout in the Great Lakes— had been achieved in all the lakes except Lake Ontario and that the states and federal government had restocked the lakes with lake trout, other trout and salmon, adding:

"These stocked salmonids have fed heavily on the plentiful alewife and have rapidly grown to trophy size. The resulting sport fishery of these salmonids, when combined with the existing sport fisheries on other species, currently contributes $360 million annually to the Great Lakes states and the Province of Ontario."

But many of the Lake Michigan fish, he said, contain more than five parts per million (ppm) of PCBs— the Food and Drug Administration "action level" beyond which fish are considered unsafe for human consumption.

WARNINGS ISSUED

As a result, he said, warnings have been issued against eating large lake trout and salmon from Lake Michigan and similar problems exist in Lakes Superior, Huron and Ontario.

The Food and Drug Administration can seize anything offered for sale for human consumption that contains more than the action level of any contaminant. Many of the witnesses who appeared earlier at the conference were critical of the 5 ppm action level, arguing that it is too high to provide adequate protection.

Last week, the Canadian government set the action level there at 2 ppm, the level several speakers at the conference advocated for the United States.

"But if the current level were lowered to 1 or 2 ppm," Reed said, "then virtually all species would be restricted and essentially the entire Great Lakes' fishery would be curtailed. The current guideline of 5 ppm has already tabled any serious consideration of commercially fulfilling the salmonid populations in the near future," he said.

HISTORIC STRUCTURES TAX ACT— S. 667

AMENDMENT NO. 1325

(Ordered to be printed and referred to the Committee on Finance.)

MR. BEALL. Mr. President, I am submitting and sending to the desk an amendment to S. 667, the Historic Structures Tax Act, which I introduced on February 12, 1975. The Historic Structures Tax Act has now been cosponsored by the following 18 Senators: Senators ABOUREZK, BAKER, DOLE, DOMENICI, GOLDWATER, GRAVEL, HART of Michigan, HARTKE, JAVITS, MATHIAS, McGOVERN, McINTYRE, METCALF, SCOTT of Pennsylvania, STEVENS, STONE, TAFT, TOWER, and TUNNEY.

The amendment I am submitting today would allow historically significant buildings which are located within "historic districts" established by State and/or local governments to receive the tax benefits contained in title II of S. 667. Thus it will not be necessary to make a building-by-building determination in those areas which have been set aside as historic districts. I would add, Mr. President, that the Secretary of the Interior is authorized, by this new language, to determine by a certification process that the historic district designation meets "criteria which will substantially achieve the purpose of preserving and rehabilitating buildings of historic significance." I believe that this language will prevent abuse or misuse of this provision while at the same time achieving a desirable objective.

Mr. President, on October 13, 1975, I visited the Union Square restoration area in Baltimore which is a prime example of what can be done by individuals committed to the cause of historic preservation. Restoration and rehabilitation are far better forms of "Urban Renewal" than the more traditional approaches we have pursued in the past. Restored areas such as Union Square, Bolton Hill, Federal Hill, Fells Point, Mt. Vernon, Seton Hill, Charles Village, and others serve to revive communities, improve the tax base, strengthen the urban social fabric, while improving the general quality of life in our major cities.

On the same day I sent a letter to each member of the House Ways and Means Committee and the Senate Finance Committee urging them to focus attention on this vital area during their consideration of tax reform legislation. By these actions I hope to give visibility to an important legislative initiative that might otherwise be overlooked.

I feel that our current system of tax incentives works in a very direct and definite way against enlisting private funds in historic restoration projects. We can no longer continue to systematically destroy our Nation's history, weaken the fabric of our communities, and deplete our resources as we have in the past. As our national values readjust to the concept of a finite world it is important for us to update our tax system so as to achieve socially desirable goals.

I believe that the Congress should give prompt and favorable consideration to the Historic Structures Tax Act which would harness the constructive aspects of our Federal tax system so as to preserve historically significant buildings, encourage the rehabilitation rather than the demolition of older buildings in our urban centers, and increase the development of additional open spaces for public use.

Mr. President, I ask unanimous consent that amendment No. 1325 and the text of S. 667 be printed in the RECORD.

There being no objection, the amendment and bill were ordered to be printed in the RECORD, as follows:

AMENDMENT NO. 1325

On page 4, line 12, strike out "or".

On page 4, line 15, strike out "or his delegate".

On page 4, line 16, strike out the period and insert in lieu thereof a comma and "or".

On page 4, between lines 16 and 17, insert the following new subparagraph:

"(C) is located in an historic district designated under a statute of the appropriate State or local government if such statute is certified by the Secretary of the Interior or the Secretary or his delegate as containing criteria which will substantially achieve the purpose of preserving and rehabilitating buildings of historic significance to the district."

On page 4, beginning with line 17, strike out through line 20.

On page 4, line 24, strike out "(3)" and insert in lieu thereof "(2)".

On page 5, line 16, strike out "as defined in section 169(d)(2)".

On page 6, below line 25, insert the following new paragraph:

"(3) CERTIFIED REHABILITATION.—The term 'certified rehabilitation' means any rehabilitation of a certified historic structure (as defined in section 189(d)(1)) or of any other structure located in a Registered Historic District or in a State or local govern-

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