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W. B. Papageorge (4-2086) E3NJ

January 18, 1977

G. Roush, Jr. - A2SA
R. A. Stohr - B2SA

PCB's
Mobil Study

HNB

J. C. Weber - B2SK

The attached was received from Dr. Paul E. Brubaker, Senior Toxicologist, Mobil Research, in response to my phone call for any recent information relating to their epidemiological study.

Dr. Brubaker is noncommittal regarding Mobil's latest findings or plans to issuing any public statements.

ORIGINAL SIGNED BY
W. B. PAPAGEORGE

W. B. Papageorge

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attachment

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JAN 19 1977

Mobil Oil Corporation

150 EAST 42ND STREET
NEW YORK, NEW YORK 10017

November 24, 1976

NIOSH Review Committee
for PCB Criteria Document

I discussed Chapter 3 Effects on Humans of the draft copy of the NIOSH PCB Criteria Document with Dr. Paul E. Brubaker and with Dr. J. Rodney Meredith, the Chief Clinician in Paulsboro, New Jersey, for Mobil Oil Corporation. Dr. Meredith has been intimately involved with the concern about PCB's being carcinogenic in humans. It was his preliminary report which Dr. Bahn analyzed and which we then forwarded to Dr. Finklea. Since Dr. Meredith was at the last minute unable to attend your meeting, he would like to emphasize by letter a fact for your consideration in preparing the document.

The report of data from Mobil which is cited in this document was very preliminary. We feel that this should be so stated. Dr. Meredith points out the following: (1) the report was based almost exclusively on a chart search; (2) there was no medical information available on a large segment of the group as Dr. Bahn pointed out; (3) as discussed below there has been a substantial change in the cohort since release of that first report. For those reasons Dr. Meredith suspected that the composition of the cohort was of limited accuracy. Not, however, until we began to identify the cohort more precisely did we realize how difficult was the process of determing exposure and how many changes we would have to make. Old records, laboratory notebooks, personnel records and memories of long service employees for 20 and 25 years ago had been consulted, but we began to gain confidence in our cohort only when we resorted to individual interviews with nearly every person possibly associated with PCB's. This process is near completion.

There is still the task of notifying some employees added to the exposure group and of others deleted from the exposure group to form the new, based-on-best-data cohort. An extensive examination program has been instituted for both current and former employees. Diagnoses will be verified.

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Thus, it appears that the change in our cohort will be considerable and that the findings on this new cohort may be significantly different from the preliminary data. The information from Mobil in the months ahead may well have a different impact than the preliminary information which Dr. Bahn analyzed and which is cited in this document.

A new report will be made available at the earliest moment to NIOSH. It should be one in which you and all parties concerned will have confidence.

Sincerely,

B. N. Kightlinger, M.D.
Assistant Medical Director

BNK/ra

given modern transportation systems. At the present time, it is not uncommon for logs to be hauled over 100 miles from woods to mill—making it very difficult to plan sustained levels which promote the stability of any single community.

An additional fallacy in this argument results from the failure of the Agency to consider non-National Forest land in the forest land base used to calculate nondeclining yield levels. The Forest Service admittedly cannot control timber harvest on lands it does not administer. However, relatively reliable estimates of removals from these lands can be made based upon forest inventory characteristics, projected market prices, and other criteria. Failure to consider these lands, in many cases, runs counter to the Agency's commonly stated objectives since it ignores the significant contributions these lands will make when combined with National Forest lands.

A recent study by John Beuter of Oregon State University analyzed the timber supply situation in Oregon and discussed the implications of various assumed alternatives to timber supply in that State (OSU Research Bulletin 19, January 1976). All ownerships, including federal, state, forest industry, and small private lands, were analyzed. This study projected that if present landowner practices continue there will be a 32 percent decline in timber supply in Oregon between 1983 and the year 2000. However, if certain policies are changed (including the present federal non-declining yield policies), there is no reason for any decline in harvest levels at all—either now or as far into the future as can be seen.

Proposed Solution

The best course of action would be to defer the legislative prescriptions contained in section 11 and amend the section to require that allowable harvest levels be set through the interdisciplinary planning process and the establishment of goals approved by Congress as part of the Forest and Rangeland Renewable Resources Planning Act of 1974. This policy should not be fixed in law, especially without the release of the Forest Service study, so that the full implications of various harvest regulation alternatives can be explored through public participation and review by technical specialists.

More specifically, section 11 should be amended to strike the phrase "a quantity which can be removed from such forest annually in perpetuity on a sustained-yield basis." In its place should be substituted:

"The quantity established by timber management plans developed pursuant to section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974, as redesignated by section 2 and amended by section 6 of this Act."

In addition, a new subsection should be added to section 11 as follows:

"(e) The Secretary shall study timber inventory management alternatives to determine whether changes from present practices in timber harvest scheduling would yield greater net benefits to the Nation and shall report his findings to the Congress prior to 1979."

Under the proposed amendments, timber harvesting schedules would be constrained by the requirements of the Multiple Use-Sustained Yield Act of 1960, the National Environmental Policy Act of 1969, and the amended Forest and Rangeland Renewable Resources Planning Act of 1974 requirements for an interdisciplinary team approach and public participation.

The language would require no change in present Forest Service harvest regulation policies, but would require the Agency to have available the results of its present study on harvest regulation alternatives for the consideration of Congress and the public.

Any management plan is subject to many assumptions. The Bureau document prepared under the Resource Planning Act is no exception. The present Forest Service nondeclining yield policy was a major assumption of all the alternatives presented in the program submitted to Congress in March 1976. These assumptions should be subject to periodic Congressional review as provided by the Resources Planning Act and to review by the Forest Service itself every five years when the new Program is due. Everyone will lose if this policy is locked into law now.

DDT AND KEPONE IN MOTHERS' MILK

HON. JOHN D. DINGELL

OF MICHIGAN

IN THE HOUSE OF REPRESENTATIVES

Tuesday, September 14, 1976

Mr. DINGELL. Mr. Speaker, the House recently approved an amendment which Congressman Oscar Gray and I offered to H.R. 14032, the Toxic Substances Control Act, to preserve the production and use of polychlorinated biphenyls—PCB's—which are highly toxic chemicals widely distributed throughout the environment. I am placing in the Congressional Record an article which appeared in the August 24, 1976, issue of the Washington Post newspaper reporting on a study which found PCB's present in mothers' milk in 10 States. This article points to the urgent need for enactment of legislation to control hazardous industrial chemicals like PCB's.

I am placing, also, in the Record a report in the February 27, 1976, issue of the Washington Post on the discovery of traces of the pesticide Kepone in mothers' milk. It is worth noting, further, that other reports have found traces of other pesticides such as DDT, Aldrin and Dieldrin present in samples of mothers' milk. The presence of one of these chemicals—all of which are either proven or suspected to be capable of causing cancer—is disturbing; however, what about the effects of a combination of these chemicals in mothers' milk? Has a study been done to identify the entire range of chemical contaminants in mothers' milk?

Finally, I am inserting a copy of an article which appeared in the September 13, 1976, edition of the Washington Post newspaper which links PCB's to liver cancer.

[From the Washington Post, Aug. 24, 1976]

MOTHERS' MILK IN TEN STATES FOUND TO CONTAIN TOXIC CHEMICAL PCB

(By Victor Cohn)

Polychlorinated biphenyls, poisonous industrial chemicals that have fouled the nations waterways have been discovered in mothers' milk in 10 states in what a federal official yesterday called "worrisome" amounts.

The description came from Dr. David Hall, director of the National Institute of Environmental Health Sciences, who chaired a special meeting at the Department of Health, Education and Welfare called to discuss what he called "this potentially serious problem."

PCBs form a class of colorless and tasteless compounds with a thousand industrial uses as insulators, sealers, heat exchangers and ingredients of inks, paints, lubricants and plastics.

The first findings in a national survey by the Environmental Protection Agency showed measurable amounts of PCBs in 48 of 51 samples of mothers' milk obtained in Maryland, Virginia, Georgia, North Carolina, New Jersey, Alabama, Florida, Oregon, Pennsylvania and South Carolina.

The findings were called "preliminary" and "unconfirmed" by Gordon Walsh, chief of the special chemicals branch in EPA's Office of Toxic Substances.

But another official who asked to remain anonymous said "the figures come from a laboratory in which I have a great deal of confidence." He added that "other figures we're getting from the biggest cities are the same levels or higher. Before long we should have the picture for the whole country."

Hall, who heads HEW's main environmental laboratories, said after the meeting, "I don't think I'd tell nursing mothers to make any changes in their breast-feeding now, but we're going to have to get more EPA and independent data . . . so we can have a better idea what to advise."

He added, "I don't think pregnancy or nursing mothers should eat any fish from the Great Lakes or Hudson River," waters where commercial but not sports fishing has been halted because of PCB contamination.

Dr. Arthur Schecter, a research associate chemist at Mount Sinai Medical Center in New York, said he was "insane to start any children expected—this is an unpleasant surprise of many we didn't expect."

Schecter was one of a group of consultants who met with the EPA committee and heard reports of serious disease, brain and nervous disorders, stunted growth and deaths in the nursing infants of the unfortunate few PCBs. Some of the tissues of mothers' milk fat contained around 3 parts per million of PCBs.

This is "in the same ballpark" as the measurements in the human mothers' milk, said Dr. J.E. Allen of the University of Wisconsin, who completed the mothers' studies.

The average measurement in the 48 mothers' milk fat was 2.1 ppm. The highest single measurement—of this did not say in what state—was 10 ppm, a level at which it makes some wonder if it would be accurate enough in a case of serious industrial poisoning.

The four highest averages were in women from North Carolina with 3.6 ppm; Maryland, 3.3; New Jersey, 3.3 and Missouri, 3.1.

The Food and Drug Administration has set a "provisional tolerance level" of 5 ppm for PCBs in the fatty part of whole milk on grocers' shelves. Anything higher is considered illegal.

"With new [illegible] to consider these contaminants, [illegible]," John R. Wessel of the EPA reported.

"Numbers like these may sound very low to the average person," Schecter said. "But the child is going to [illegible] this kind in its particular, so if it takes it in every day, you have a buildup. And it says in the body for years."

EPA officials said other studies show that recent PCB levels in [illegible] formulas have been steadily down over the past two years, which they said was encouraging in case some breast-feeding should be curtailed.

Still, health officials might have to compare the levels in mothers' milk and cows' milk state by state, because state dairy [illegible], Wessel said.

If the EPA figures are confirmed and found widespread, committee members and consultants said, a simple way might be developed to test a mother's milk for contaminants or experts might be made to switch to alternate foods low in fatty chemicals.

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Since 1966, when PCBs were first found to have crept into the environment, they have been found in drinking water, fish, other foods, wildlife and other birds, human body fat and breast milk in several other countries—though only in scattered instances in U.S. mothers' milk.

In the early 1970s effluents and even contaminated industrial PCBs were destroyed by the monitors, Monsanto Co., this country's only producer of PCBs, halted sales in 1971 except for sealed machinery such as electrical transformers.

However, millions of pounds of imported PCBs have continued to pour into the country, in part because of congressional failure over the past several years to agree on a toxic substances control act. Such a bill, with a clause that could bar such imports, is before a Senate-House conference committee. On Monday the House passed an amendment to it that would outlaw all PCB manufacture within two years.

Some 750 million pounds in use and 150 million pounds in landfills, water, soil and the air are expected to remain a problem for generations, however.

PCBs are chemically related but are different compounds from a group of the ill-reputed known as PBBs—polybrominated biphenyls. In the last few years PBBs have contaminated tons of Michigan livestock feed, and last week Michigan health officers reported finding PBBs in an average of 5 ppm in the milk fat of 53 Michigan mothers.

[From the Washington Post, Feb. 27, 1976]

9 MOTHERS HAVE TRACE OF KEPONE

The Environmental Protection Agency said Thursday it has found minute traces of Kepone pesticide in mothers' milk from nine women living in seven cities in Alabama and North Carolina.

An EPA spokesman said the nine were among 248 in nine southeastern states whose milk was tested for Kepone, an anti-roach poison, within the past six months. Milk samples from all the other women were free of Kepone, he said.

The amount of the substance found in each woman was minuscule, ranging from less than one to 9.4 parts per billion, the spokesman said. He said Kepone levels recently found to have caused serious illness in Hopewell, Va., where the pesticide formerly was produced, were about 1,000 times higher.

The spokesman said the EPA is unsure where the pesticide found in the milk originated, although it might have been formed by the degradation of another poison called Mirex, or "other hazards, if any" are posed by such small amounts of Kepone.

He said he did not know whether any of the nine women, who all had given birth days before the milk samples were taken, were nursing their babies.

[From the Washington Post, Sept. 13, 1976]

INDUSTRIAL CHEMICAL PCB IS LINKED TO LIVER CANCER

(By Morton Mintz)

COLD SPRING HARBOR, N.Y., Sept. 12.—A toxic industrial chemical that recently was found in the milk of 53 of 67 tested American nursing mothers was linked to liver cancer in humans today by a leading Japanese scientist.

The chemical polychlorinated biphenyls (PCBs), is believed to be present in the fatty tissue of nearly every person in the United States, Japan and possibly other industrialized countries.

The association of PCBs with human liver cancer—which is 95 per cent fatal generally within a year—emerged from an exposure to which about 1,000 persons in Yusho, Japan, over a period of a few weeks in 1968, ate rice oil accidentally contaminated with a total of 0.5 to 0.8 grams of PCBs.

Varying but apparently extremely high amounts of PCBs persisted in some of the victims' bodies. Many still present fatigue, headaches, fever, eczema, numbness in the limbs, severe skin eruptions, and digestive and menstrual disorders. Some infants born to exposed mothers had PCBs in their tissues at birth, and also had severe skin discolorations.

PCBs, extremely stable chemicals, are used in electrical equipment, paints, printing ink, adhesives and other products. They have been used widely for 45 years but were not recognized as environmental contaminants until 1966.

Dr. Tsuneki Hirayama, a specialist in tracing the causes of human disease at the National Cancer Center Research Institute in Tokyo, told an international conference on cancer at Cold Spring Harbor Laboratory that five of the Yusho victims died of liver cancer within five years after eating the contaminated cooking oil. This figures out to a rate of 500 per 100,000, compared with the expected rate of 21 per 100,000.

[illegible] in an interview later, said that [illegible] in two cases and possible or probable in the remaining three. The two [illegible] Journal, which reports every [illegible] in medical literature, [illegible].

Hirayama's presentation followed a report by pathologist James R. Allen of the University of Wisconsin, who warned that "any level" of human exposure to PCBs "may be injurious to human health."

The Yusho data—reinforced by data on brain cancers in monkeys and other adverse effects in animals cited by Allen—suggest a "danger signal" that PCBs caused the liver cancers, Hirayama said.

As for the hundreds of millions of persons who have ingested much smaller amounts of PCBs, mainly in their food, Hirayama said, "I am concerned about the implications for people everywhere ... There is no question the problem is serious."

Although Hirayama previously had reported the first cancer risk calculations in Japan, they came as a surprise to several attending scientists who specialize in causes of environmental cancer.

Hirayama's disclosure "is one of the most worrisome sets of data that we have recently seen," said one of those scientists, Dr. Irving J. Selikoff of the Mount Sinai School of Medicine in New York City.

The Environmental Protection Agency recently reported that PCBs had been found in 153 of milk of mothers who live in 10 states. EPA and Department of Health, Education and Welfare officials have set Sept. 23 for a meeting with obstetricians and pediatricians about how to advise mothers about breast feeding.

The concentration of PCBs in the mothers' milk fat was highest, 10.6 parts per million, in a Michigan woman, while it averaged 1.6 ppm in 18 Virginia women. Overall, the average was 1.7 ppm.

The temporary maximum allowed by the Food and Drug Administration is 0.2 ppm for infant and junior food, but is 2.5 ppm for cow's milk on grocery shelves.

In recent studies reported by pathologist Allen, female monkeys that consumed PCBs at a rate of 2.5 ppm had much higher concentrations—up to 18 ppm—in their milk fat. Exposed to this "severe toxicity," Allen said, their breast-fed infants developed skin discoloration, acne, loss of eyelashes, and swelling and corrosion of the eyelids.

The infants improved when weaned from mine containing PCBs, but Allen said, a 1968 study showed that "behavioral and learning deficits" had persisted for at least a year and may still continue.

Allen recalled that the [illegible] that PCBs may be linked to cancer [illegible] from a Japanese study of mice in 1972. In a study of rats reported in 1973, 82 per cent of PCB-fed rats developed apparently malignant liver growths.

Not yet known of Hirayama's calculations of the Japanese liver cancer increase at Yusho, Allen based his concern that PCBs may be carcinogens on animal data, saying, "There are only six instances that a higher incidence of cancer occurs in persons exposed to PCB."

IN SUPPORT OF THE 55-MILE-PER-HOUR SPEED LIMIT

HON. JAMES J. HOWARD

OF NEW JERSEY

IN THE HOUSE OF REPRESENTATIVES

Tuesday, September 11, 1976

Mr. HOWARD. Mr. Speaker, since Congress enacted what is now commonly referred to as the 55-mile-per-hour speed limit law, there has been some criticism and mention about the wisdom of that law. Indeed, every year at least a Member will introduce a bill to repeal the law or to so amend it as to raise the speed limit. As more people become aware of the tremendous saving of life and in energy conservation effected by that law, the [illegible] and grumbling has materially [illegible]. That decrease is due to the increasing recognition that, as Lt. Gen. Benjamin O. Davis stated, the 55-mile-per-hour speed limit is the "single most important safety measure ever enacted or implemented. All the efforts of the National Safety Council for decades never produced the results this one law did."

For the benefit of the few of my colleagues who may not know and General Davis is, may I point out that he was born in Washington, D.C., in 1912. He attended the University of Chicago and graduated from the U.S. Military Academy in 1936. In June 1938, after a year as commander of an infantry company at Fort Benning, Ga., he graduated as a student at the infantry school there, graduated a year later and assigned duties as professor of military science at Tuskegee Institute, Tuskegee, Ala. In May 1941, he entered advanced flying school at nearby Tuskegee Army Air Base and received his wings in March 1942. He is rated a command pilot. After transferring to the Army Air Corps in 1942, General Davis served in North Africa, Sicily, and Italy. After attending the Air War College in 1949-50, he was assigned to the Deputy Chief of Staff for Operations, Headquarters, USAF, Washington, D.C., and served in various capacities. In 1965, General Davis assumed command of the United Nations Command and U.S. Forces in Korea. He commanded Clark Air Base. General Davis has received many awards from this and other countries. After a distinguished military career, General Davis became director of public safety in Cleveland in 1970. From 1971 to 1973, General Davis served as Assistant Secretary of Transportation for Environment, Safety, and Consumer Affairs. After his second retire-

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