

Monsanto

FROM
(NAME-LOCATION-PHONE) J. D. Wilson - G3WG - 4-8879

MAY 31 1984

DATE : May 31, 1984

CC: J. Brooks - 1250

SUBJECT : Call Report - Johns Hopkins Univ.
PCB Project

D. L. Coleman - G2WF

T. F. Evans

W. R. Gaffey - G2WE

REFERENCE :

W. J. McCarville

J. H. Senger - G2WG

TO : J. H. Craddock - B3NA
J. G. Nassif - E2ND
G. Roush - G2WG

I talked by Telephone 5/30 with Drs. E. A. (Ted) Emmett and Morton Corn of Johns Hopkins regarding the PCB item in the 5/8/84 issue of Occupational Health and Safety Letter (attached). Corn handled the exposure side of the work, Emmett the health assessments. Analyses were done at a lab in Research Triangle Park, NC (a Dr. Pellazari?).

Corn said that they had assumed PCB exposure in the 47 transformer repair workers studied came via inhalation, but that thorough measurements showed this to be impossible. Thus they believe ingestion and/or skin absorption to be responsible. (This conclusion did not sit well with the workers.) The chlorobiphenyl congeners observed in fat and blood samples are enriched in the higher boiling congeners compared to the transformer oil (an Aroclor 1260-based askarel); however, the lower boiling congeners also tend to be more readily metabolized (I think), so the two cases--selective loss of low boilers before ingestion vs. selective excretion--may be hard to distinguish.

Blood levels in the workers are in the >100-ppb region. Blood levels fall after workers retire, and the congener distribution tends toward that found in the general population.

Emmett said that they had been following this population of General Services Administration employees for several years. He looked for and did not find any correlation between PCB blood levels and urinary porphyrin abnormalities (cf. the Milan group's identical results). He looked for enzyme abnormalities, but has found nothing terribly significant.

Emmett believes that they have the data to estimate clearance rates for some of the congeners, but they haven't done that yet. I told him that we estimated the half-time for TCDD clearance to be in the 2-3 year range, based on analogy with pentachlorodibenzofuran clearance in the "Yusho" incidents. Most tetra- and pentachlorobiphenyls disappear faster than that.

Both Corn and Emmett would be interested in coming to St. Louis to discuss their work later this year (e.g., October).

To Joe Brooks: Do you know this Pellazari? Could you find out if his analytical methodology resembles yours?


J. D. Wilson

/hmv
attachment

EX P-3394
Page 1 of 3

ago, with a streamlined system compatible with today's flying conditions.

The proposed rule would also provide new flexibility to airlines by reducing the need to delay or cancel departures following late-arriving flights. Under the proposal, a flight crew could make a normal take-off as scheduled, but the carrier would have to allow additional time off during the next rest period to compensate for any shortfall.

DOT noted the proposal would provide flight crews with important new protection against short-term fatigue, a subject not addressed by the existing rule. The current regulations do not require rest periods for domestic air carrier crews flying less than eight hours a day, which could lead in some cases to extremely short rest periods between multiple short flights. The proposed rules would spell out guaranteed minimum rest periods, even for multiple short flights totaling less than eight hours in 24.

The proposed rule would continue existing protections against long-term fatigue for jet air carrier crews, which limit total flight time to 30 hours per seven-day periods, 100 hours per month and 1,000 hours per year. It would also provide similar protection to the pilots of air taxis and commuter lines, filling in a gap in the current regulations.

CONTRACTORS SEEK REASSESSMENT OF UNDERGROUND SAFETY STANDARDS:

The National Utility Contractors Association and the Underground Contractors Association led a group of industry experts in opposing OSHA's proposed new underground safety standards.

As the proposed regulations now stand, there is no differentiation between cut and cover, manhole maintenance and construction and pipe-jacking. Under the OSHA proposal, each of these categories of construction would be forced to adhere to stringent new requirements that would apply equally to deep-tunnel and boring.

The industry representatives contend OSHA is proposing to apply its existing mine operation regulations to the construction of tunneling. Such a proposal, they said, would result in millions of dollars in additional costs by contractors.

"The regulations, although good for the mining industry, are unsuitable for the construction industry," said John Kenny, Jr., vice president in charge of operations for Kenny Construction Co., Wheeling, IL.

Kenny was joined by E.O. Mixon, vice president of special projects, in attempting to convince OSHA that it would be a serious and costly mistake to arbitrarily mass all underground contracting into one all-inclusive category.

"The financial impact on small utility contractors would be a financially disastrous -- and unnecessary -- burden," Kenny said.

Emmett: (301) 336-3500

PCB HAZARD IN WORKERS MAY BE GREATER THAN IN ENVIRONMENT:

M. Conn: (301) 955

Studies at Johns Hopkins Center for Occupational and Environmental Health suggest that the hazards of PCB exposure may be greater in workers than among the general public.

Dr. Edward E. Emmett, director of the center, uncovered several misconceptions about PCBs in studies of retired and active electrical workers and others in the work force.

PCBs (polychlorinated biphenyls) are chemicals widely used as coolants and lubricants in electrical transformers and capacitors. In recent years, their use has been linked to reports of headaches, nausea and numbness in electrical workers exposed to them.

"A lot of attention has been paid by industry and government to PCB levels in the air," Dr. Emmett explained, "yet our studies suggest that the high levels on surfaces touched by workers may be much more important as a source of contamination for workers."

"We have also found that there is significant contact with PCBs -- and risk of

absorbing them -- in areas well away from the immediate work site."

In other studies, Dr. Emmett and colleagues have shown PCBs to be very well absorbed through the skin. In fact, he reports that PCB levels may drop after workers stop contact with the chemical.

"PCBs were thought to be a persistent substance in the body," Dr. Emmett said, "but the retired workers we studied had relatively low PCB levels despite heavy exposure in the past. This strongly suggests that PCBs are slowly lost from the body after absorption has taken place and that they are lost over months or years."

Whether the lower levels reflect reduced health risks, however, is not known.

"While we found no evidence among workers of acute PCB poisoning, the question arises as to whether there are subtle effects which we are continuing to address. For example, we particularly want to know whether the PCBs are having any subtle neurological effects on the people who are exposed," Dr. Emmett commented.

Dr. Emmett and co-workers are also developing new and more accurate methods of detecting PCBs in both human fat and blood.

NIOSH PUBLISHES GUIDELINES TO HELP WORKERS IN SERVICING:

NIOSH has published guidelines designed to outline methods of protecting workers engaged in maintenance and servicing of machines, processes or systems from injury by the unexpected and unrestricted release of hazardous energy.

For purposes of the document, NIOSH defined "energy" as meaning mechanical motion; potential energy due to pressure, gravity, or springs; electrical energy; or thermal energy resulting from high or low temperature.

Maintenance and servicing was defined as the tasks necessary to keep a machine, process or system in a state of repair or efficiency. This includes inspection, servicing, repair, troubleshooting, setup, clearing jams and related activities.

The document provides a logical system for performing maintenance and servicing activities safely, and recognizes that such activities can be performed safely with energy present, with energy removed, and while reenergizing. The recommended guidelines were developed through a systems analysis approach. A so-called "logic tree" provides a step-by-step diagram for controlling hazardous energy that should be utilized in the formulation of specific maintenance and servicing procedures.

FIRED WORKER SUES EMPLOYER FOR FAILURE TO CONTROL SMOKING:

A San Francisco secretary who claims she was fired a half-hour after she asked her boss to stop smoking in the office has filed a \$100,000 lawsuit under the city's new anti-smoking ordinance.

The suit seeks back pay and punitive damages from her former boss, co-owner of a kitchen and bathroom products wholesale company.

It is the first suit filed under the new ordinance, which went into effect March 1 and requires employers to make accommodations for smokers and non-smokers or ban smoking in workplaces if a satisfactory arrangement cannot be reached.

The secretary contends she was fired in retaliation for making her boss stop smoking because the smoke was giving her migraine headaches. But the company's lawyer said she was really fired because of an argument over a pay raise.

Meanwhile, Harvard University's John F. Kennedy School of Government has received a \$658,000 grant from the Carnegie Corporation to establish an Institute for the Study of Smoking Behavior and Policy.

Under supervision of Thomas C. Schelling, the Institute will seek to develop new knowledge about smoking behavior and to translate that information into program designs and policy options intended to discourage young people from smoking.

John M. Pinney, former special assistant to the Secretary of Health, Education & Welfare and director of the Office of Smoking and Health in the Public Health Service, will serve as executive director of the Institute.