DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
ROBERT A. TAFT LABORATORIES
4676 COLUMBIA PARKWAY, CINCINNATI, OHIO 45226

January, 1981

Refer I.D. No. 71629

Dear Mr.

In early 1977, you participated in a medical survey conducted by the National Inatitute for Occupational Safety and Health, to assess the possible health effects of occupational exposure to polychlorinated biphenyls (referred to variously as PCB, Askerel, Inerteen, etc.). In August, 1977, we notified each participant in the survey of the results of his or her individual medical examinations, except for serum PCB level. We are now reporting to you the average (mean) serum PCB levels observed among the groups of workers at the Westinghouse Electric Company who participated, and a summary of our findings as they relate to serum PCB level.

Serum PCB levels were measured on blood drawn at the time of the surveys, and are reported here as "lower chlorinated biphenyls " (L-PCBs) and "higher chlorinated biphenyls" (H-PCBs). The L-PCBs were predominantly biphenyl molecules with 4 or fewer chlorine atoms per molecule, and the H-PCBs were predominantly biphenyl molecules with 5 or greater chlorine atoms per molecule.

Workers at the Westinghouse Electric Company who participated in our survey were classified into four groups, according to apparent level of occupational exposure to PCBs at the time of the survey. From lowest to highest apparent level of exposure, these were: (1) workers whose job assignment at the time of the survey was in neither the "Fill and Test" nor "Maintenance" areas, and who never had been assigned to work in either area; (2) workers whose job assignment at the time of the survey was in neither the "Fill and Test" nor "Maintenance" areas, but who ever had been assigned to work in either area (regardless of length of time assigned); (3) workers whose job assignment at the time of the survey was in plant maintenance; and (4) workers whose job assignment at the time of the survey was in the "Fill and Test" area.

Average, minimum, and maximum serum lower chlorinated biphenyl (L-PCB) and higher chlorinated biphenyl (H-PCB) levels are given for each group in the table that follows:

	Lower Chlorinated Biphenyl Levels			Higher Chlorinated Biphenyl Levels		
	Mean level (ppb)	Minimum value (ppb)	Maximum value (ppb)	Mean level (ppb)	Minimum value (ppb)	Maximum value (ppb)
Fill&Test	502	210	3330	44	20	150
Maintenance	237	34	2400	51	10	250
EVER WORKED*	149	8	1500	27	7	130
NEVER WORKED*	89	1	370	22	1	110

*EVER WORKED=Job assignment at time of survey was in neither "Fill&Test" or "Maintenance", but the participant had ever been assigned to either area.
*NEVER WORKED=Job assignment at time of survey was in neither "Fill&Test" or "Maintenance", and the participant had never been assigned to either area.

For comparison to the above information, we would expect the highest levels of lower and higher chlorinated biphenyls found among persons without occupational exposure to PCBs to be as follows:

	Highest levels found among persons without occupational exposure
Lower chlorinated biphenyls (L-PCBs)	30 ppb
Higher chlorinated biphenyls (H-PCBs)	10 ppb

At the time of the survey, we tried to emphasize that persons who work with PCBs are likely to have elevated serum PCB levels. Thus, the elevations in serum PCB levels that we have demonstrated should come as no surprise. In our surveys of workers exposed to PCBs, we have been unable to identify any specific diseases which are more likely to occur to persons as a result of PCB exposure. We have identified mild increases of certain blood tests associated with increasing serum PCB levels. Specifically, increases of certain liver enzyme tests (SGOT, GGTP) and of plasma lipid levels (cholesterol, triglycerides) are associated with increasing serum PCB levels, and these occur in the absence of any illness specifically attributable to PCB exposure.

REQUEST TO BE NOTOFIED OF SERUM PCB LEVELS

Please send me the test results of my serum PCB levels, measured on blood drawn during the NIOSH survey of workers occupationally exposed to PCBs, in 1977.

Study I.D. number.....| | | | | |
(This number is in the top right hand corner of the accompanying letter.)

Name....._____

Address....._____

City, State, Zipcode....._____

_____
Signature

_____
Date

A franked envelope was included. RWD

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