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COMPANY

REAL ESTATE AND CONSTRUCTION
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RECO SERVING PROGRESS

Building #36 - Room 120
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MEMORANDUM 72-5

MEETING OF MONSANTO WITH EPA TO DISCUSS PROPOSED PCB RECOMMENDATIONS
(Thursday, April 13, 1972)

This memorandum summarizes the information that I obtained during a telephone conversation on the afternoon of Friday, April 14, 1972 with William B. Papageorge of the Monsanto Company.

1. Through its Washington representative, Monsanto learned that EPA's proposed recommendation to the Federal Government's Interagency PCB Task Force would call for a PCB effluent standard of zero and a stream standard of 0.01 parts per billion (ppb). Both of these standards are operationally meaningless because the most accurate method for the analysis of PCB's today has a sensitivity of only 2 ppb.

2. Because the deadline for any changes in the proposed EPA recommendation was Friday, April 14, Monsanto requested a meeting before that date. On Thursday, April 13, Papageorge and two of his associates met with Dr. John Buckley, Deputy Director of EPA's Office of Research. Dr. Buckley reports to Dr. Leland Attaway, Deputy Assistant Administrator for Research.

3. Papageorge felt that Buckley displayed a realistic understanding of the problems facing Monsanto in its PCB production facilities. Buckley recognizes that although PCB's have been produced for about 40 years, only recently was evidence discovered that these materials are widely distributed in the environment and may have toxic and biological effects upon living organisms. During most of this 40 year period, therefore, no special precautions had been taken by either the manufacturers or the users of PCB's to prevent the introduction of these chemicals into the environment. Consequently, in plants that produce or use large quantities of PCB's, the plumbing and the waste disposal systems and even the soil around the plants may have become heavily contaminated with PCB's. In some plants, as much as 80% of the PCB's in the wastewater discharges may come from these reservoirs of "old" PCB's and only 20% from current operating practices. Buckley is primarily interested in how effectively the plants are controlling their current operating practices.

4. Buckley described how the stream standard of 0.01 ppb was arrived at. He started with the FDA standard, which sets 5 parts per million (ppm) as the maximum concentration allowable in the edible portions of fish. From data obtained by the fisheries laboratory in Columbia, Missouri, a concentration

factor of 75,000 had been calculated; in other words, the concentration of PCB's in the tissue of fish was 75,000 times greater than the concentration of PCB's in the water from which the fish was caught. Dividing 5 ppm by this concentration factor of 75,000 leads to a maximum tolerable stream concentration of 0.07 ppb. Buckley then used an additional safety factor of 7 to arrive at the proposed stream standard of 0.01 ppb. Buckley recognizes that he "couldn't go to court with the number 0.01" but that this number would probably be retained in the EPA recommendation and would subsequently be treated by EPA as a goal for the future, with no specific date set for its attainment. By coupling this stream standard with the mean annual flow of the Mississippi River of 175,000 cubic feet per second, Buckley arrived at a limit of 3 pounds per day for the total discharge of PCB's into the Mississippi River.

5. Buckley recognized the analytical difficulties of determining a stream concentration of 0.01 ppb. He said that monitoring would probably be done by analyzing fish caught in the Mississippi River. Only if analyses of the fish showed a significant increase in PCB concentration above the FDA limit of 5 ppm would EPA start to make a detailed analysis of the effluent from plants which might be a source of such contamination in the river.

6. Papageorge got the impression that Buckley was not out to shut down plants that produce or use PCB's. He felt that enforcement would be on a plant by plant basis, with EPA giving consideration to the total number of pounds of PCB's used or produced at the plant, the age of the plant, and the flow rate of the river or stream into which the discharge went. (Note: Neither Buckley nor his immediate superiors have enforcement powers or responsibilities, which are vested in a separate enforcement office of EPA.)

7. Buckley asked Papageorge if he could estimate the PCB losses from plants manufacturing capacitors or transformers that use PCBs. Papageorge declined to make estimates for any company other than Monsanto.

8. Public issuance of the Interagency Task Force Report, which had been expected by the end of April, may be delayed while the Task Force seeks clarification from the American Embassy in Tokyo of the full implications of the recent decision by the Japanese Government putting severe restrictions on the uses of PCB's in that country.

I believe that it is only a matter of time before EPA makes specific inquiries concerning the handling of PCB's by GE plants that use these chemicals in their manufacturing operations. In preparation for such inquiries, the plants should do three things:

1. Establish the reliability and internal consistency of the plants' analytical methods for PCB's by appropriate cross checks with other GE laboratories and with Monsanto.

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2. Estimate the extent of past contamination and the amount that such contamination might contribute to present effluent levels.

3. Document the specific steps that have been and that will be taken to reduce as far as practicable the loss of PCB's to the environment from present operations.

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