

Monsanto

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February 21, 1974

Dr. Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs
Office of the Assistant
Secretary of Commerce
U.S. Department of Commerce
Main Commerce Building
14th Street & Constitution Avenue, N.W.
Washington, D.C. 20230

Dear Dr. Galler:

Your letter to Mr. Warren Easley dated January 15, 1974 was forwarded to me to respond with comments relating to the proposed effluent standard for polychlorinated biphenyls (PCBs).

With regard to the five points listed, we have the following information to offer:

1. Can the proposed standards be met by existing technology?

No. There is evidence to indicate that polychlorinated biphenyls can be removed from water by absorption or adsorption by particulate matter such as clays and soils. In fact, currently-used analytical methodology utilizes this characteristic. Further studies will be required to determine the best method for disposal of the contaminated solid waste which would result. A detailed manufacturing process, engineering design, capital cost and manufacturing cost have not been completed or determined. The cost would be substantial. There is no "turn key" technology available to industry.

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2. If the technology to meet standards applicable to your operation(s) exists, please describe any potential problems you foresee in applying the technology within the proposed time period.

Assuming the technology discussed in (1) above could be made available, we estimate 24 to 30 months may be required for the design, procurement, installation and demonstration of the facilities. The situation, as it relates to Monsanto's polychlorinated biphenyl-producing unit, is further complicated because of the yet-unknown requirements which will be imposed for the local and regional waste treatment systems which are now being planned. We do not know specifically the situation as it would pertain to the users of chlorinated biphenyls and we suggest they be contacted for their views.

3. Describe the manner and extent to which meeting the standards would impact upon your energy requirements.

If the adsorption technology proves effective, large quantities of solid material containing polychlorinated biphenyls will be generated. Disposal of this waste will require incineration which will consume a considerable amount of fuel. The quantity cannot be determined until pilot studies are completed.

4. If the standards are to be met, describe the anticipated economic and social impact as reflected in the following:

- a. Plant closings.
- b. Employee layoffs.
- c. Projected increase in capital and operating costs as reflected in finished product cost.
- d. Termination in manufacture or consumption of products.

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If practical technology remains unavailable, the low effluent standard proposed cannot be met. This could lead to forced termination of the manufacture and use of polychlorinated biphenyls. Monsanto's PCB operations directly utilize 25 employees with an additional 30 in supporting service functions. In addition, the unit which supplies the intermediate raw material involves 47 employees who would also be laid off if no alternative use of the material can be developed. The current users of polychlorinated biphenyls, electrical capacitor and transformer manufacturers and their customers, will also be affected and we believe the extent of the economic and social impact would be considerable. Representatives of the capacitor and transformer manufacturers and the power distribution industry can provide more specific information and should be contacted.

Sincerely,



W. B. Papageorge
Manager, Product Acceptability
Functional Product Groups

WBP/bt

cc: Mr. K. W. Easley
Washington, D.C.