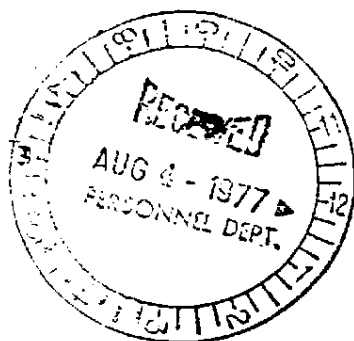




July 22, 1977

Frederick R. Johansson, Ph.D.
Senior Toxicologist
Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Mo. 63166

Dear Mr. Johansson:

Since our meeting of December 20, 1976 we have finished coding and editing the death certificates data provided by Mr. Bureau (a copy of this data has been provided for you). As we move into the analysis/interpretation phase of the study, it is important that we have a clear understanding of the major chemical usage, production and products during the period of etiologic interest, 1920-1960, for the Indian Orchard Plant. This will, in turn, allow us to concentrate our review of the toxicologic and epidemiologic literature to those substance which were in greatest use at that time. Our present understanding is that the Indian Orchard facility started out in the production of cellulose nitrate and cellulose acetate during the early part of the century. In the mid-30's polyvinyl butyryl and phenyl formaldehyde were produced. During the 1940's formalin, melamine, formaldehydes, and acrylic plastics were manufactured. Starting in about 1948 polyvinyl chloride and polystyrene were produced. If this information is at variance with your understanding of the plant's activities over time, please let us know so we can be as precise as possible in our interpretation. I understand that there is a new plant manager at Indian Orchard, so you may have to get help from someone else on the production history.

In addition, we would appreciate information on dyes and coloring agents used during the period 1920-1960 with particular concern to the coal-tar pitch dyes used. We would like to know the historical pattern of benzene usage. Because of the original concern regarding vinyl chloride polymerization, we specifically request information on chemicals used and/or produced in or associated with PVC and polystyrene production.

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From Dr. John Lewis' letter of February 1976 (copy attached) we note an excess of cancers of the digestive system (31 observed vs. 13.4 expected). Although his analysis was admittedly crude, we do feel it important to follow up his lead by looking carefully for agents, especially in particulate form, which may have been in use at the plant during the period of interest. Please let us know if this additional piece of information generates any clues as to possible agents.

Finally, we wish to emphasize, that in responding to this request we ask you to provide order of magnitude figures, since exact amounts of chemicals used or produced are not required.

Sincerely yours,

Earon Stanislawczyk
Illness Effects Section
Surveillance Branch
Division of Surveillance, Hazard
Evaluations, and Field Studies

cc: Mr. Paul Bureau
Mr. James Schriver
Dr. George Roush

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