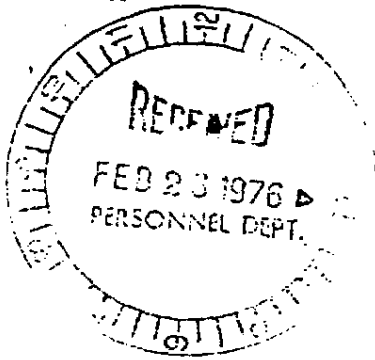
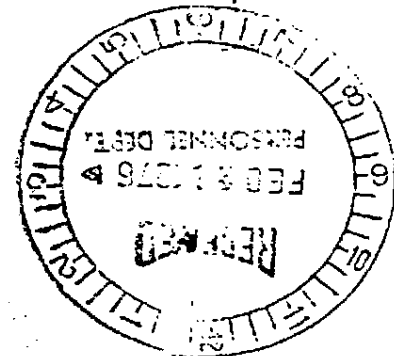


F. E. Bureau  
W. E. Nessell  
J. A. Guidi - St.L.  
P. S. Park - St.L.

hbl, 2/26/76



February 23, 1976



Dr. George Rousch  
Medical Director  
Monsanto Company  
800 N. Lindberg Blvd.  
St. Louis, Missouri 63166

Dear Dr. Rousch:

The National Institute for Occupational Safety and Health (NIOSH) has become aware of an apparent unusual frequency of deaths from pancreatic cancer among former workers of the Monsanto Polymers and Petrochemicals Company, Indian Orchard, Massachusetts, and is concerned about its possible implications.

The problem came to our attention when a group of workers at the facility became concerned about a possible problem in areas of the facility where vinyl chloride was used. The group attempted to identify fellow workers and retirees from the plant who had died and might have worked at one time or another in a department having vinyl chloride exposures. As of July, 1975, 86 deaths among former employees of the Monsanto facility were identified and reported to a NIOSH physician stationed in Boston. Review of causes of death entered on the death certificates indicated that cancer was the underlying cause in 21 cases and pancreatic cancer in four of these. Based on the proportion of cancer deaths to all deaths in the general white male population (ages 20 and over) in 1970, one would have expected 15.3 deaths from cancer among the 86 Monsanto deaths and only one death from pancreatic cancer. There is further reason for concern since two of the four pancreatic cancer cases from Monsanto were only 42 and 43 years of age at death.

While we recognize that these findings are based on a limited set of data, it is difficult to ignore the unexpectedly high frequency of a comparatively rare cancer and its unusual age distribution. Consequently, in order to adequately answer the question, further follow-up work should be done. It is our judgment that an examination of causes of death among a more complete group of workers at the facility would be a logical next step in studying the situation. Specifically, the proposal is to identify all deaths occurring among workers at the Monsanto Indian Orchard facility over some defined period of time. At a minimum, we would ask Monsanto to make available information such as name, date and place of death for all workers.

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*David K...*

whose deaths would have been known to the Company through its life insurance and retiree plans or other appropriate sources. In addition, we would attempt to identify by other means, former Monsanto workers who died after leaving the Company for reasons other than retirement. This larger set of deaths would be analyzed in much the same way as was done with the first 86, except that statistical adjustment for age, race, sex, and year of death would be incorporated. It would be helpful, although possibly not practical, to know whether each decedent studied was classified as either: blue collar/white collar, production/non-production, or salaried/hourly.

If the apparent increase in pancreatic cancer holds when evaluated against a more complete data set, subsequent steps will be necessary to further elucidate the problem. These would include review of detailed work histories for decedents with the disease shown to be in excess to identify any common exposure areas that may yield clues to the relationship between exposure and effect. Depending upon these findings, it may then be appropriate to initiate a full-scale study of cause-specific mortality rates in a population of workers employed in production operations such as those that have existed at the Monsanto Indian Orchard facility.

We feel that this is an appropriate course of action necessary to clarify this matter and to be responsive to the concerned Monsanto employees. We would appreciate very much your cooperation in assuring that this task be completed in a timely and effective manner. Dr. DeCoufle will be in contact with you regarding more specific details of a mutually satisfactory date to begin this study. If you have any questions, please feel free to call me at 513-684-3541.

*S + R - could provide analysis initially.  
S + R - could provide basic data.*

Sincerely yours,

*WDSH - NO*

*OUTSIDE - NO*

Bobby F. Craft, Ph.D.

Acting Director, Division of Surveillance  
Hazard Evaluations and Field Studies

CC: Dr. DeCoufle  
Mr. Ellsworth  
Dr. Finklea

BFC:rk

*however they could provide  
w/analysis. (wid)*

*How does this impact on  
Present WORK how doing what is req.  
Communication Proposal*

*SPAN 1  
Rousch 3*

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*any have  
much to do  
C. P. and Jan.  
to see and?*