Monsanto

FROM (NAME & LOCATION) D. R. Bishop - B1ND

DATE Nov. 17, 1975

SUBJECT

DEPARTMENT

TO :

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Dr. P. L. Wright - A2SC

Attached is the second draft of a news release summarizing Dr. Pour's re-evaluation of Dr. Kimbrough's study. It incorporates comments from Dr. Levinskas, Messrs. Papageorge and Wood.

Please let me have your comments and/or approvals as soon as possible tomorrow morning.

We need to clear the final version with Dr. Pour and have copies printed for distribution in Chicago on Wednesday, following Dr. Kimbrough's presentation.

I'll have to print the news release late tomorrow morning. Your cooperation is appreciated.

D. R. Bishop/mks

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attachment

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IN - INTERNAL

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ENVIRONMENTAL TOXICITY / HUMAN SAFETY

NEWS Monsanto

FOR RELEASE
IMMEDIATELY 1975

Not issued DRB

MONSANTO INDUSTRIAL CHEMICALS CO.
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PUBLIC RELATIONS DEPARTMENT
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

CHICAGO, Nov. 19 -- Monsanto Company today announced that a newly completed scientific review, commissioned by the St. Louis-based company, does not confirm the presence of malignant liver tumors in experimental rats fed a commercial polychlorinated biphenyl (PCB) mixture...a conclusion that had been previously reached and widely reported by Dr. Renate D. Kimbrough of the Center for Disease Control of the U.S. Public Health Service in Atlanta.

The Monsanto-sponsored report, a re-evaluation of Dr. Kimbrough's work, is titled, "Histopathological Re-evaluation of Tissues from Sherman Rats Fed Aroclor 1260," and is authored by Dr. Parviz Pour, a pathologist with the renowned Eppley Institute for Research in Cancer of the University of Nebraska Medical Center at Omaha. Aroclor is a Monsanto trademark for a class of chlorinated hydrocarbon industrial chemicals it manufactures.

In her study, Dr. Kimbrough reported that when Sherman strain female rats were fed 100 parts per million of PCB (Aroclor 1260) for about 21 months, 170 of the 184 experimental animals developed neoplastic lesions (precursors of malignant tumors). She further identified 26 of these lesions as hepatocellular carcinomas (malignant liver tumors).

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During his re-evaluation, Dr. Pour saw the same alterations but identified them as being hyperplastic or non-tumorous lesions, further pointing out that it was his strong impression that many of the detectable alterations were a degenerative and reparative rather than a neoplastic process. Dr. Pour's re-evaluation is consistent with conclusions drawn from PCB feeding studies conducted by Industrial Bio-Test Laboratories which have never produced a carcinogenic response in experimental animals.

In his discussion, Dr. Pour reported that he observed 20 cases of abnormal lesions which presented such structural criteria as to be considered possible tumors, although a most significant criteria for malignancy -- namely invasiveness -- was missing, and the sign of ongoing toxic, degenerative and regenerative processes in the rest of the tissue was evident. "At present, the statement that these lesions may have metastasized (infiltrated adjacent tissue) if the treatment had been continued is as much as unreliable as the possibility that they might have been regressed if the animal would have been kept longer or for life," he stated.

"In summary," the Eppley Institute pathologist reported, "it is difficult at present to conclude whether or not some of the examined lesions represent a malignant lesion, because of the lack of invasion and metastases. In the case of such organs, as the liver, with its marked tendency toward regeneration, it is, in my

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opinion, difficult and sometimes impossible to distinguish between regeneration, hyperplasia and neoplasia, particularly when the tissue is continuously exposed to a toxic substance."

Quoting further from Dr. Pour's report, he wrote, "In this context, Dr. Kimbrough's study seems of particular interest, in that polychlorinated compounds may be retained in the body, even in higher concentrations for several months after feeding has been stopped. This finding may explain the continuing degenerative and regenerative processes in the livers of most experimental rats, even two months after Aroclor was removed from the diet.

"One should also bear in mind that some animal strains may react more specifically to a compound because of common endogenous diseases, as in the case of the Sherman rats used in this experiment which tend toward spontaneous liver lesions.

"In my opinion," he concluded, "many of the lesions induced were of a degenerative nature, and without further studies, the induced liver lesions could not be definitely designated as neoplasia (tumorous).

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NOTE TO EDITORS: Copies of Dr. Pour's report are available on request, in writing, from Public Relations Department, Monsanto Industrial Chemicals Co., 800 N. Lindbergh Blvd., St. Louis, Mo. 63166.

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Based on some animal tests, EPA considers PCB's to be suspect carcinogens. More extensive animal tests conducted by Monsanto several years ago concluded that PCB's did not cause cancer. The livers of experimental animals showed evidence of some damage in both sets of tests, but pathologists do not agree that cancer was the result.

We have examined available records of employees in our PCB department of the Wm. J. Krummrich Plant for the 1950-mid 1975 period. No deaths involving liver malignancy (tumors) have been found.

Several months ago a group from NIOSH visited the plant. They concluded that employee exposure to PCB in our operation was too low to be of concern.

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