THE BARNARD FREE SKIN AND CANCER HOSPITAL

WASHINGTON AND TERESA AVENUES

SAINT LOUIS 8, MISSOURI

December 22, 1949

C43 AM

Dr. R. Ernest Kelly, Medical Director
Monsanto Chemical Company
1700 South Second Street
St. Louis, Missouri

RE: Project W-32 Aroclor 1254
(Report on Patch Testing)

Dear Dr. Kelly:

Film treated with 11.5% aroclor and 100% aroclor were tested to determine primary irritancy and sensitization.

In a general way, the patch testing was in accordance with the procedure recommended by Drs. Louis Schwartz and Samuel M. Peck in Reprint #2552, Public Health Reports, Vol. 59, #17 (April 28, 1944).

The technic employed was as follows:

(1) Four ply gauze and film treated with 11.5% aroclor were cut into pieces 1.5 cm. square.
(2) The gauze, moistened with 100% aroclor, and the treated film were applied to the skin of the upper arm and covered with standard Elastopatches (Duke Manufacturing Company).
(3) The patches were removed in 24 hours and the site of application observed at that time and again in 48 and 72 hours.
(4) After 10 or more days had elapsed, the patches were reapplied and steps (2) and (3) repeated.

A group of two hundred eighteen volunteers was tested. Their ages ranged from 20 to 70 years. The average age was 51.8 years. There were 131 women, whose average age was 53.4 years, and 87 men, whose average age was 50.3 years. No Negroes were tested.

One individual, a female aged twenty-seven, showed a positive reaction of 3/ upon removal of the patches after twenty-four hours. No reaction was apparent 48 and 72 hours later, however, nor on the re-testing after ten days.

If the procedure recommended by the United States Public Health Service is sufficient to distinguish between chemical compounds that are innocuous when applied to the skin and other compounds that are primary irritants or sensitizers, then it would seem that Aroclor has no primary irritant effect nor is it a sensitizer of high potency. Henderson and Riley (J. Invest. Dermat. 6:227-230 (June) 1945) applied statistical

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principles to the results obtained from patch testing. According to their formula, if no positive reactions are found in 200 subjects, the maximum rate of positive reactions in the population from which the sample was drawn will be 1.5 per cent. They express this estimate at the 95 per cent liklihood level - that is, the estimate is expected to agree with the results obtained from the patch testing of an entire population 95 per cent of the time. Until further evidence of toxic or sensitizing action of the skin is found, we believe it would be safe to assume that individuals may be exposed to Aroclor.

Very truly yours,

Lawrence K. Halpern, M. D.

Approved:

Richard S. Weiss, M. D.

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