AUG ' ' 1969

cc: D. R. Hansen-Santa Clara
W. N. Maddox-C
D. H. Bechtold-C
R. Emmet Kelly-RKELL
E. Wheeler-EWHEE

August 13, 1969

Mr. M. P. Powell
U.S. Plywood - Champion Papers
130 N. Franklin St.
Chicago, Illinois 60606

Dear Parker:

I mentioned to you that I had more specific information about [redacted] but in looking over my notes I don't have much more to offer than Dr. Kelly. If you don't feel that the following is sufficient, please call either Emmet Kelly or Elmer Wheeler, Monsanto's Manager of Environmental Health who gave me this information.

"Somewhat arbitrarily we have said in the past that if Aroclor 1248 is heated above 150° F then mechanical exhaust ventilation should be provided to remove vapors. This may or may not be conservative depending on the concentration of Aroclor in a formulation, the surface area exposed, the duration of the elevated temperature and the amount of general room ventilation provided.

"Sufficient ventilation" is that amount needed to reduce vapor concentrations of Aroclor 1248 to the Threshold Limit value (TLV) of ~0.5 milligrams per cubic meter of air. The TLV is that amount which workers can inhale 8 hours a day, 5 days a week for a working lifetime without danger of injury.

This obviously will lead to the question of how the concentration in a workman is determined. Aroclor vapors cannot be measured with simple instruments that can be used for such common work place contaminants such as carbon monoxide, hydrogen sulfate, many chlorinated hydrocarbon solvents, etc. The measurement of Aroclor vapors requires sampling equipment and techniques that involve wet chemistry analysis in a suitable laboratory.

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"Sufficient ventilation" can also be defined as the amount of air moving over the source of a contaminant (in this case Aroclor) and into appropriately defined ventilating systems to carry the vapors outside the working area. Depending on the type and nature of the source the design of the ventilating system can be simple or complex. In either case a common household situation serves to illustrate the point. For example, one would not try to capture and remove the odor of frying fish or cooking cabbage in the area of the kitchen range by placing a window fan in an upstairs window or attic. Common sense says to put a hood over the range where it is more economical to move smaller quantities of air and yet capture the offending materials. Secondly, it obviously is preferable not to draw the odors through the rest of the house. This seems so obvious that no one would expect to find designs of ventilating systems in industry that would draw Aroclor vapors across a workroom exposing unnecessarily a large number of people and secondly, moving many more cubic feet of air to control the exposure than if the ventilation was applied directly over the source. Unfortunately plant engineers are repeatedly misapplying exhaust ventilation as indicated in the example above."

Sorry you've had such a hard time getting the answer you want.

Sincerely,

C. Lee Judy
Ceâlu-Chem Sales

CLJ/lx