BC: H. O. Jacobsen
New York, N.Y.

April 3, 1963

Mr. A. R. Scott
Magnesium Casting Company
98 Business Street
Hyde Park, Massachusetts

Dear Mr. Scott:

Mr. Dale Smith has asked me to attempt to clarify our statements concerning the inhalation toxicity of Pydraul A-200.

Animal toxicity studies and human experience with our Pydrauls and somewhat similar compounds or formulations lead inevitably to the conclusion that workmen must not inhale vapors of these materials on a prolonged continuous basis. Secondly, there is evidence that even short-term exposures to massive concentrations can cause temporary disability or injury. This is not unusual since you have seen, as have I, numerous newspaper accounts of victims overcome by the thermal decomposition of many synthetic materials as well as naturally occurring products whether it be wood, cotton, wool, feathers, etc.

With the limitation of today's scientific knowledge, it is impossible to define the terms "short-term" and "massive exposures" referred to above whether one is trying to evaluate the hazards with synthetic materials, naturally occurring materials or mixtures of these.

Returning to the matter of Pydraul A-200, it is our belief that a single exposure to concentrations of vapors or decomposition products which are only mildly irritating would have no significant effect. On the other hand, we cannot say that five minutes a day, ten minutes a day, or one hour a day, day-in and day-out to a specific concentration - and certainly not in relation to an unknown concentration - is safe.

As you know, there are two general ways of controlling exposures. One is to provide mechanical exhaust ventilation for any unit or equipment where Pydraul A-200 is raised to elevated temperatures. Obviously, the ventilation system has to be adequate to remove the vapors.

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A second and less expensive alternative for intermittent or infrequent exposures of short duration is to provide respiratory protection for the individual workers. In this case, the process or operation has to be isolated such that the vapors being evolved do not contaminate other working areas.

The details of controlling occupational health hazards whether such involve Monsanto's Pydraul®, petroleum hydrocarbons, die lubricants, etc., are almost impossible to describe without analytical information to show what conditions are produced or exist. This is like diagnosing and recommending treatment for patients without the doctor seeing the patient. I hope, however, that the above additional comments are helpful.

If I can be of any further assistance, please do not hesitate to let me know.

Very truly yours,

Elmer P. Wheeler
Assistant Director
Medical Department

EPW:sf

CC: Mr. A. Bunshoft
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