NOV 2[illegible]

bcc: W. F. Burggrabe - A-3-
D. J. Murphy - New York
E. P. Wheeler - A-2-
S. U. Shorey - Everett

November 17, 1961

Mr. J. E. Rowland
Chas. Pfizer & Company, Inc.
Groton Plant
Groton, Connecticutt

Dear Mr. Rowland

Thank you for your letter of November 2 requesting information on PYDRAUL AC.

We see no objection to operating your Chicago Pneumatic air compressor with PYDRAUL AC in the cylinders and Gulf Harmony 69 petroleum oil in the crank case. PYDRAUL AC is compatible with Gulf Harmony 69 and leakage of PYDRAUL AC into this oil would form a true solution with satisfactory lubricating properties. If the PYDRAUL AC content of the oil in the crank case reaches 3-5 percent or more, there may be a softening effect on the paint. The amount of PYDRAUL AC in the oil can be monitored from time to time by measuring specific gravity and referring to the chart attached.

Concerning your questions on decomposition products of PYDRAUL AC and the effect of this lubricant on bacterial growth, our medical staff reports:

> "The decomposition products of PYDRAUL AC can include carbon monoxide, carbon dioxide, water, hydrogen chloride phenols and aldehydes, and undecomposed PYDRAUL AC vapors, depending on the conditions of decomposition such as temperature, oxygen available, period of contact with heat, etc.

DSW 018728

STLCOPCB4005272

We have no information about their 'understanding that this material will not support bacterial growth'.

The carry-over of air compressor cylinder lubricant to filters, tanks and other down-stream equipment is usually mostly in the form of micronic size mist. Most of this mist can be removed with an efficient fiber mist eliminator. Enclosed is a reprint of a paper presented by Dr. Brink of Monsanto at the AIChE meeting in Lake Placid, New York in September. On page 3, he specifically mentions bacteria free processes.

With a Brink mist eliminator, carry-over is then reduced to the vapors of the lubricant. This can be minimized by use of HYDRAUL AC as it has a vapor pressure of only 0.0005 millimeters of mercury at 100°F. Even this trace amount of lubricant could be removed with an active adsorbent filter, such as charcoal or alumina, though this should not be necessary.

We believe the combination of the Brink mist eliminator and HYDRAUL AC as the cylinder lubricant will be a practical solution to the goal described in your letter of November 2, 1961. If you would like additional information on the mist eliminator equipment, would you please contact Mr. William Burggrabe at this same address. If you would like additional information on HYDRAUL AC, please let me know or contact Mr. S. U. Shorey at our office in Everett Station, Boston 49, Massachusetts (Dunkirk 7-5010).

Very truly yours,

Richard Davis, Manager
Industrial Fluids Sales

RDimjt

Enclosure

DSW 018729

STLCOPCB4005273