H. S. BERGEN - ST. LOUIS

JANUARY 26, 1970

D. DANNA
N. T. JOHNSON
D. A. OLSON
W. B. PAPAGEORGE

YOUR MEMO 1/7 - PYDRAUL MARKET
YOUR MEMO 1/12- AROCLOR ENVIRONMENTAL PROGRAM

J. R. DURLAND - TOKYO

From your two referenced memorandums, we appreciate your concern about the demand for Pydraul products vs. phosphate esters in Japan, as well as your concern on the Aroclor environmental program. We, likewise, are concerned but hope after the following discussions that you will agree that MMK should continue to proceed with their Pydraul marketing and blending program. May we give you some thoughts on this matter?

Bill Papageorge is still relocating, but will answer more of your detailed questions as soon as he can. Suffice it to say, however, pollution in the U.S. is becoming a major political issue as well as a needed environmental one. Many of the steel companies and other industries are presently under pollution indictments for oil pollution from their lubricating machinery, cutting oils, etc. They are all being forced to take steps to reclaim oils and to prevent them from getting into rivers and streams. The same will be true for Pydraul, as it will also be true for phosphate esters and water glycols. As a matter of fact, the State of Michigan Water Resources Board recently sent such a letter to the major steel and automotive companies along Lake Michigan. You see, therefore, that the problem of pollution and control are not only applying to Pydrauls and PCB's, but to all other industrial and hydraulic oils as well. To be sure, the PCB's are being singled out at the moment because of their being found along with DDT in aquatic wildlife.

Our Business strategy, therefore, in the Functional Fluids area is certering around two factors; (1) containment of all PCB's and Aroclors to the greatest extent possible and, (2) reformulation of those applications where we know containment is difficult or impossible.

We recently had a meeting with General Electric on the whole subject of Aroclor 1260 in transformers and they made a good case for why we could not discontinue manufacture of this product and they also indicated that they felt that containment was more nearly possible in this application than most of the others for these products. In addition, we have recently received indications from both Bayer and Prodelac that they are feeling little or no pressure to discontinue production of these products and that they will be extremely reluctant to do so and only with much more viable proof. With these two producers taking this position, it obviously would make it difficult for us to stop supplying countries such as Latin America, Australia, India, and other world areas because Bayer and Prodelac would simply pick up the business at our expense.

In the Pydraul area, based on related biodegradable tests we have some degree of confidence that Pydraul 312 will not be affected by any "bans". We are reformulating Pydraul 625, Pydraul AC and Pydraul 540 because these contain either Aroclor 1254 or Aroclor 1260. For the moment, we feel that A-200 and the products containing Aroclors 1242 are reasonably safe, at least for the first major legislative go-around if and when it occurs.

For your information, attached is the letter we intend to send out to all the U.S. Functional Fluids customers by February 1.

We intend to go back to the Corporate Management Committee soon to up-date them on the program and the present feeling is that we will indicate to them that we should continue manufacture of the total product line providing that the applications can be contained for the Aroclor 1254 and 1260.

Coming back now to your position of needing to develop Aroclor outlets as well as the Pydraul marketing program, we feel that it would be premature to stop efforts to market and blend the Pydraul 312 series or any of the others which do not contain Aroclor 1254 or 1260. A slackening of marketing effort and not retaining your competitive advantage at this time would, we feel, put you in a poor marketing position vs. Ando Jimusho and other phosphate ester producers. We agree that phosphate esters do and continue to have a significant role, both in formulated Pydraul products as well as use in certain Pydrauls per se.

This is why I wrote you recently regarding some of our new phosphate ester developments which look particularly outstanding and are quite new and novel in our chemical approach and which seem to give superior performance to the normal trixylyl and other triaryl phosphates being offered by Stauffer, FMC and others. Certainly short range, however, you would have to buy your phosphate ester needs to supplement your Pydraul blending program.

Your investment is blending facilities should be quite nominal and in order to maintain your competitive position we feel that it will be mandatory for you to blend in Japan. I know you agree with this, but perhaps the pollution problem and the reformulation has unduly concerned you.

Even with reformulations which will be to the lower chlorinated Aroclors and to the chlorinated terphenyls (away from Aroclor 1254 and 1260), you will still need blending facilities to accomplish this, therefore, we see no reason to hesitate going ahead with the marketing and blending program. We do not expect to be out of the Pydraul business in the U.S. either short term or long term!

I hope this answers some of your questions, John, as to our status. We are still very bullish about our growth of the Pydrauls and as a matter of fact, every month we are continuing to set sales records and have above-budget performance. This is in spite of all the news publicity and even direct competitive threats to scare our customers with the PCB threat.

In summary, any industrial fluid which is discharged into an open stream is going to have pollution problems in the U.S. The most desirable situation is to have biodegradable lubricants which can be recovered, incinerated or otherwise disposed of. PCB's are getting a lot of publicity because of association with DDT but, likewise, regular industrial oils are under the legislative gun just as much. Our future program will be to aim towards biodegradable industrial hydraulic fluids and to offer our customers reclamation and reuse systems and services, possibly with Enviro Chem. Because of this great national sense of urgency on pollution problems, I feel there will be a trend more and more about self-contained systems where performance of the fluid will be more and more demanding with longer life, higher temperature, etc. and probably an even greater demand towards synthetic lubricants because they can be reclaimed and reused vs. certain oils.

I will be interested in your thoughts and comments, and if you have any more questions I'd be pleased to try to answer them.

Best regards,

H. S. BERGEN

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