St. Louis, Missouri
CALL REPORT 76-17

cc: R. E. Hatton
M. A. Petrilli - 1010
D. Wood

GENERAL ELECTRIC COMPANY
ROME, GEORGIA

DATE OF CALL: April 7, 1976

CONTACTED FOR GENERAL ELECTRIC: G. Davis, Director Purchasing
Jim Kinney, Development Lab Chemist
Tom Mayes, Manager of Engineering

OBJECTIVE:

1) Discuss Monsanto non-PCB replacement fluids.
2) Monitor competition activity.
3) Obtain information influencing selling price of our replacement fluids.
4) Discuss makeup for askarel transformer after PCB plant shutdown.
5) Review forecasts.

RESULTS:

Replacement Fluids

The latest Monsanto fluid technical data from research was reviewed with Mayes and Kinney. While Pittsfield has done some work with our candidates, the Monsanto products are not getting the priority now. GE has been working with silicones since about 1973 or 1974 on a fairly intensive basis. They have developed a good understanding of silicones. GE expects to be in a position to shift away from askarel by July 1976, although they don't plan to make a shift at that time.

Mayes and Kinney would not disclose transformer cost information. They stated the price for a Monsanto non-PCB product is dependent on properties and their impact on transformer design.

They feel silicone transformers will cost more than dry types. In the past, Pyranol and dry types have sold for about the same price.

Mayes and Kinney indicated two alternatives for GE -- silicone at somewhat less than $11 per gallon in bulk and TCB at something under $5 per gallon, but with potential environmental problems. Therefore, they indicate a selling price for a Monsanto product of somewhere between $5 and $11 per gallon if the product is environmentally acceptable in every way and has all the desired functional characteristics.

Kinney claims GE could replace Pyranol in 90 percent of their market with TCB, except for potential environmental problems with TCB. He says these transformers are in-doors and don't usually have the power factor demands.

Monsanto's 1865 and 1866 fluids were tested by Factory Mutual. After this, GE ran ASTM 3119 spray mist flammability tests. Preliminary reports (the official report has not been made by Kinney and Mayes) indicate the Monsanto fluids equal to mineral oil in flammability. In short, the GE results were worse than those of Factory Mutual.

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Because of the poor showing of Monsanto fluids in flammability and the TCB content, Monsanto's products have a low priority at GE. Silicones have the priority now, and it would appear that if a shift was made in July from askarel to another liquid, the fluid would be silicone.

According to Kinney, the Dow Corning marketing approach for silicone has had a big influence on the priority silicone is getting at GE.

A representative from the GE silicone group was at Rome when I was there. Kinney told me GE would have to divert silicone capacity from the end users to transformers. GE is considering locating a silicone plant in the vicinity of Rome, Georgia.

Mayes and Kinney feel that Mr. Jones, Chairman of the Board at General Electric, will soon get tired of bad publicity from PCB's. This anticipation factor, plus the fact that Bruce Roberts, Vice President of General Electric, has personally gone out and sold eight silicone transformers, moved GE planners to the point of stating they will be ready to shift away from askarel by July 1976.

GE quotations now say Pyranol or a replacement fluid. Mayes said they had to do this or stop quoting.

Rome ran a series of tests on GE silicone in 1974 and again in 1975. Rome has run Dow Corning silicone material compatibility tests this year.

Makeup for Pyranol Transformers After PCB Plant Shutdown

Mayes stated Monsanto should use an annualized figure based on drum and can shipments to Rome and GE service shops. Assuming an average life of thirty years for askarel transformers, an approximation of makeup stock could be obtained.

Forecasts

GE, Rome, is shutting down for a week starting April 12. Gus Davis still anticipates a TC per month being shipped by Monsanto for the balance of 1976. The April car has already been cancelled in an effort to adjust their inventories.

Samples of Monsanto Fluids

If 1865L, 1971L and 1767 are the preferred candidates now, we need to get samples to Pittsfield. Kinney requested samples be sent to Pittsfield first.

Future Action

R. E. Hatton please sent samples of above mentioned candidates to Pittsfield if M. A. Petrilli agrees. Monitor GE decision making a replacement fluid. Monitor GE timetable for conversion to new fluid. Call at Rome in June.

J. A. Alley

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