

File defective
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March 14, 1980

OIL-SOAKED CAPACITOR BUSINESS

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In my last memo on the OSCB, I identified Universal Mfg. Co., Bridgeport, Ct. as using 2MM lbs. of DUP for capacitors. Based on that information, you assigned project No. PDNI80-030 as an area to be investigated further with particular reference to 900D.

Today, 3/6/80, I extended my investigation further into this area and visited two OSCB accounts in New Bedford, Mass - Aerovox and Cornell Dubilier.

1. Commercial

As in the case of Universal, Aerovox is using 2MM lbs/yr. DOP from USS and BASF. Talked with Mr. John Hustler, Chief Engineer, at Aerovox who gave me a few additional points. There are 8 suppliers in OSCB:

- General Electric, Hudson Falls, N. Y. - the biggest.
Frank Bryce and David Shore are contacts.
- Universal Mfg., Bridgeport - you know this already
- Aerovox, New Bedford
- Cornell Dubilier, New Bedford
- Jard Corp, Bennington, Vt.
- Sprague Electric, North Adams, Mass. (smaller than the rest)
- Mallory, Indianapolis
- Sangamo Electric, Pickens, S.C. - Uses G.E. patents

My subsequent call at Cornell Dubilier, Mr. Rebello, Purchasing, revealed that they are using 1MM lbs/yr. of DOP. Unfortunately, at Cornell Dubilier, I was not able to speak with Mr. Ed Lobo, Eng. Mgr. to gain any technical details.

At Aerovox, John Hustler told me that USS is at regular plasticizer pricing and BASF is at a 1¢/lb. premium. He was somewhat unhappy with USS who tried to sell a "special" electrical grade DOP at a premium only to have their "fraud" discovered - as regular DOP. Hatco is now out of the business, but had the best product as measured by a power factor of 1% vs. 1.5% -15% for USS and BASF.

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Please note, R. V. Johnson, that 6 out of 8 in OSCB are located in the Northeast territory - another example of the fact that territories do have a distinctive character.

Another point - this business was formerly all in the fluids group with PCB's. Both Hustler at Aerovox and Rebello at Cornell Dubilier have come to the conclusion that Monsanto is no longer interested in this business. We retain, however, a lot of good will at these accounts despite some individual "errors" in the fluids group. Before we are through, an examination of our franchise boundaries may be necessary.

2. Technical

We were going at a rapid pace at Aerovox, so please forgive if the following is disjointed:

- 711 will not work because it has too low a dielectric constant
- John Hustler was not sure about S-160 but thought the problem was that they could not purify 160.
- DBP is of interest because it has a good dielectric constant. It has, however, other problems not defined.
- Nobody is entirely happy with DOP because of its poorer dielectric constant (than Arochlor 1242). This has caused a considerable and more expensive capacitor redesign involving use of higher fiber content paper and more foil.
- Like Universal, Aerovox has found it necessary to use a further purification process. One of the things this does is to reduce residual moisture. Using the poorer USS and BASF DOP (vs. Hatco) this process has reduced the previously mentioned 1.5 - 15% power factor to 0.4%. A better power factor and resistivity are used as controls on the efficacy of this process.
- Aerovox is not interested in another DOP. They want to see the dielectric constant in the neighborhood of PCB's or anything better than current DOP. John was most interested in testing anything including 900D lab samples. I cautioned on this obviously, citing what we may have in the lab vs. what we will produce in the plant may be two different things. He also said some 8,000 hrs. of testing is necessary so long lead time in R&D is necessary. John, we may want to consider submitting the real thing.
- There is an "expert" in the industry, according to John, who we might contact for all the information we need. This gentleman currently acts as a consultant to Aerovox and is a retired Monsanto man - Paul Benignus, 47 Metcalf Dr. Belleville, Ill. Phone 618-397-9011

He also mentioned Jim Bryant who left Monsanto, joined G.E. and then moved to Standard Chlorine in Dover, Delaware.

John, this is the last from me on this subject. I have now covered all the accounts in my territory. If you want to pursue further, will be delighted to act as chauffeur.

EFC:ac

Ed Capron

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