cc W. C Engman
G. Johnson
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January 10, 1974
General Electric
Hudson Falls, N.Y.
Contaminated Aroclor 1016

J. R. Savage

Recommendation
We have been asked to rework 30,000 gallons of Aroclor 1016 containing about 0.4% Vinyl 4-2% dieposide and contaminated with up to 0.2% DOP. We recommend we not rework this contaminated Aroclor 1016. The long department rework time (2-3 months) would cause problems, the recovery is poor, and costs are high — $5500. We cannot guarantee quality Aroclor 1016 will be made. The Aroclor would need to be parcel treated at General Electric.

Discussion
Don Lynch provided process details. Rework involves contacting Aroclor 1016 with 93% sulfuric acid (10% by weight), neutralized with caustic followed by a water wash, dehydration, and then distilling over lime.

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Our rework facilities consist of #1 Still and Receiver, Blend tanks #1 and #2, and #1 Mix Tank. The existing 10000 gallons of distilled residue in #1 Mix Tank must be removed. Our corrosion group warned us that we may lose the zinc-tin lining in our Blend Tanks because of the acid-caustic treatment. The steel transfer lines must be replaced with aluminum piping. Also drumming facilities are needed for operators. To avoid cross-contamination of other department materials porcel treatment is not possible. Cost of modifications is $35,00 Construction time is estimated at 3-5 months.

Using #1 Still for reworking a large amount of material presents a labor problem. We do not want to create a permanent job. Therefore the work will be done on overtime. Each 1000 gallon batch will require two shifts with two men per shift. Rework 30,00 gallons is expected to take 2-3 months.

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Cost

Cost break down is as follows:

Mat'l	$2200
Incineration	$2200
Fuel	$ 100
Labor	$ 11000
Lab	$ 1400
TSD	$ 1100
Research	$ 2000
Expense	$ 35000
Total	$ 55000

$$\text{Recovery cost / cwt} = \frac{\$55000}{280{,}000\#} \times 100\#$$

$$= \$19.64$$

~~Time~~

Timing

It would take at least 7 months to rework the Arvclor after approval ~~was~~ is given.

Kenneth E Boucher
T.S.D.

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