

## INTRODUCTION

PCBS - it all started when -

1. 1929 FRANK CLARKE INVENTED PYRANOL FOR DIELECTRIC USE.  
*GE came to Swann Chem - later expanded by Monsanto to make pyranol*
2. 1931 - MONSANTO-GE RELATIONSHIP BEGINS.
  - OVER 37 YEAR PERIOD UP TO 1967, BUSINESS DEVELOPS TO MONSANTO <sup>and GE</sup> 80M POUNDS (\$12.13M) PER YEAR. MANY USES *open systems* *closed "*
  - GE - MAJOR SUPPLIER - \$150-160M PER YEAR CAPACITOR MARKET - \$50-60M PER YEAR TRANSFORMER BUSINESS.
  - MONSANTO CLOSE TECHNICAL AND COMMERCIAL RELATIONSHIP WITH GE ON BOTH CAPACITORS AND TRANSFORMERS. NEED FOR BALANCED USAGE, COST, PRICING RELATIONSHIP.
3. 1968 - PCB IDENTIFIED AS POTENTIAL PROBLEM.
4. 1970 - MONSANTO LIMITS SALES - GIVES UP 50% OF SALES VOLUNTARILY. *open systems* *closed*  
SACRIFICE TO PROTECT ELECTRICAL USAGE. ADD INVESTMENT FOR AROCLOR 1016.  
  
ELECTRICAL INDUSTRY - TIGHTER CONTROLS.  
CAPACITOR INDUSTRY ADOPTS AROCLOR 1016 - MORE BIODEGRADABLE PRODUCT.
5. 1972 - GOVERNMENT TASK FORCE SUPPORTS CONTINUED USE IN TRANSFORMERS/CAPACITORS - POINT OUT NEED FOR CONTROLS - ALSO IMPLY LIMITED TIME PERIOD OF APPROVAL - REPLACEMENTS SHOULD BE SOUGHT.

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2.

6. 1972 - MONSANTO/GE CAPACITOR PRODUCTS DEPARTMENT ESTABLISHED  
A TECHNICAL COOPERATION PROGRAM TO DEVELOP NON PCB ALTERNATIVES.

- THIS PROGRAM NOW ESCALATED TO ONE KEY CANDIDATE, MCS 1238 -  
BEING TESTED ACROSS TOTAL PRODUCT LINE.
- DID NOT AT THAT TIME HAVE CANDIDATE WE DEEMED  
SUITABLE FOR TRANSFORMERS.
- WE DO NOW HAVE SOME CANDIDATES THAT WE ARE CONSIDERING  
AND THIS IS PART OF OUR PURPOSE OF VISITING WITH GE.

\*

7. 1975

- a) PCB USED BY EPA TO DEMONSTRATE NEED FOR POLLUTANT  
CONTROL LEGISLATION. *Toxic Substances Act being Congress*
- b) GE HUDSON FALLS VERSUS NEW YORK STATE.
- c) INCREASED MEDIA EXPOSURE AND PUBLIC CONCERN.
- d) GE AND MONSANTO EXPOSED TO GREATER LIABILITY.  
*We both have significant losses.*
- e) ENVIRONMENTALISTS DISAPPOINTED AT APPARENT FAILURES  
OF CONTROLS.
- f) SCIENTIFIC REPORTS (KIMBROUGH /ALLEN) PROVIDE BASIS  
FOR GREATER RESTRICTION OF PCB ON HEALTH GROUNDS.

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3.

8. NOVEMBER, 1975

EPA - PCB HEARING IN CHICAGO. WE NEED TODAY TO TALK  
\* REGARDING OUR POSITIONS AT THESE HEARINGS.

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ALL OF THESE 1975 PRESSURES INEVITABLY LEAD TO  
REAPPRAISAL BY:

GOVERNMENT

MONSANTO

GE

GE'S CUSTOMERS

Monsanto Corporate Objectives

- To be a good citizen and good for society
- To do ~~whatever~~ <sup>whatever</sup> necessary for cause of the environment

Our Policy on PCB's

- To support the electrical industry to meet their needs. We will not go out of production without industry ~~or~~ <sup>and</sup> good equipment.
- To do what ~~is~~ <sup>is</sup> the good & industry decides in their future.
- To divert resources to alternative products

5.

1. IF ASKAREL CAPACITORS/TRANSFORMERS ARE PERMITTED TO CONTINUE, ADDITIONAL CONTROLS WILL BE IMPOSED INCREASING COST TO MONSANTO, GE AND GE CUSTOMERS.
2.
  - a) IF GE CAPACITOR GROUP LOSE NEW YORK CASE, WE BELIEVE IT LIKELY THAT THIS WILL LEAD TO A MOVE AWAY FROM PCBS IN CAPACITORS.
  - b) PCBS FOR TRANSFORMERS COULD REMAIN AVAILABLE AT SOME INCREASED COST.
  - c) WE ENVISAGE THIS WOULD BE A DIFFICULT CORPORATE POSITION FOR GE TO SUSTAIN LONG TERM.
3.
  - a) WE DO NOT HAVE A FLUID THAT WILL BE APPLICABLE TO BOTH TRANSFORMERS AND CAPACITORS.
  - b) ALL OUR TRANSFORMER CANDIDATES ARE LESS FIRE RESISTANT THAN AROCLOR (PYRANOL).
  - c) ALL CANDIDATES WILL NEED NEW CAPITAL INVESTMENT AND COMMITMENT FROM OUR CUSTOMERS TO BUY.

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6.

4. WE MUST ACCORDINGLY MAKE SURE THAT INDUSTRY (AND THAT MEANS GE) NEEDS SUCH INTERMEDIATE FIRE RESISTANT FLUIDS.

5. IF SUCH FLUIDS ARE NEEDED, WE MUST MOUNT AN EFFECTIVE JOINT DEVELOPMENT PROGRAM.

6. WE RECOGNIZE THAT GE USE ASKAREL IN FOUR AREAS WITH DIFFERENT TECHNICAL/ECONOMIC REQUIREMENTS:

INDUSTRIAL LOAD CENTER

MEDIUM VOLTAGE POWER

PRECIPITATOR TRANSFORMER/RECTIFIERS

RAILROAD - ~~MUNAR~~ *multiple units (MUCAL)*

7. WE RECOGNIZE IN SOME OR ALL OF THESE AREAS GE MAY HAVE OR BE CLOSE TO CONTINGENCY SOLUTIONS WHICH EXCLUDE MONSANTO. IF THIS IS SO, PERHAPS GE'S AND OUR INTERESTS MAY BE BETTER SERVED BY OUR PLACING GREATER EMPHASIS ON CAPACITOR PROGRAM. *We are interested in learning how well silicone meets your needs.*

WHATEVER WE DECIDE, WE MUST ENSURE THAT OUR POSITION IS APPROPRIATE AT NOVEMBER'S HEARING.

7.

QUESTIONS

1. IF WE WERE FORCED OUT OF PCBs RAPIDLY, WHICH GE TRANSFORMER DIVISIONS WOULD BE WORST HIT?
2. DO ~~ANY~~ <sup>or many</sup> SOME, ~~ALL~~ ALL GE DIVISIONS NEED AN INTERMEDIATE FR FLUID FOR THEIR MARKET (OR DOES GE PREFER NOT TO USE ANY FLUID)?
3. IN VIEW OF POTENTIAL CAPITAL NEEDS, WOULD SUCH DEMAND BE VIEWED AS SHORT OR LONG TERM?
4. WHAT TIME PRESSURES DO GE FEEL?
5. DO WE NEED TO RUN SEPARATE DEVELOPMENT PROGRAMS WITH EACH DIVISION?

ARE GE PREPARED TO ESTABLISH A TASK FORCE REPRESENTING ALL DIVISIONS AND COVERING TECHNICAL/MARKET CONSIDERATIONS TO INTERFACE WITH MONSANTO IN ORDER TO ACCELERATE PROGRAM?

6. CORPORATE GE TRANSFORMER APPROACH AT CHICAGO.

LATER: WHAT SHOULD BE FREQUENCY OF REVIEWS SIMILAR TO TODAY'S?

