

GENERAL ELECTRIC

CORPORATE RESEARCH AND DEVELOPMENT

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DIAL COMM 8*235-

Building K-1, Room 3B35
November 30, 1978

GENP 010327

J.S. Nelson, Consultant
Product Environ. Compatibility
3135 Easton Turnpike
Fairfield, Connecticut 06431

Subject: Analysis of Used Transformer PCB's for PCDF's

At your request, I submit a summary of CRD's efforts of the past 18 months to resolve the question of whether or not the PCB's that had been exposed to prolonged use in transformers might contain significant levels of polychlorinated dibenzofurans (PCDF's). Only the highlights are listed here:

1. Spring, 1977. Renewed efforts by DH Wilkins to find commercial analyst for PCDF's (1976 search a fizzle); DuPont agreed to work on problem without promising results.
2. 6/1/77. Sample submitted to DuPont
3. 11/10/77. Verbal report from DuPont. No luck.
4. 11/11/77. Selikoff phoned me re PCDF problem generally. Offered to intercede to get analysis done at NIEHS.
5. 12/9/77. DuPont report (Attached)
6. 12/19/77. JA Moore (NIEHS; McKinney's boss) phoned me. Agreed to do analysis, but wanted 1 gallon samples, also controls.
7. 12/77-2/78. Osthoff produced necessary samples and background data. I forwarded them to McKinney.
8. 2/13/78. Brown to McKinney: descriptive letter on samples and desired analysis (Attached)
9. 6/25/78. I ran into Moore at NYAS meeting and needled. He indicated heavy workload and backlog.
10. 9/22/78. McKinney to Brown: letter on initial findings indicated long list of minor contaminants in oil samples; evidence of a potentially alarming new type of contaminant the polychlorinated diphenyl ethers; suggestive evidence of massive chlorine redistribution in the used oil; suggestive evidence of much PCDF in new oil; and inability to analyze for PCDF in used oil. (Attached)

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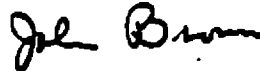
Analysis of Used Transformer PCB's for PCDF's

-2-

11. 10/17/78. Brown to McKinney: letter expressing concern over initial conclusions (Attached)
12. 11/15/78. McKinney to Brown: revised report (Attached)
13. 11/22/78. Brown to McKinney: letter summarizing apparent conclusions (Attached)
14. 11/27/78. Brown to Osthoff: covering letter to above (Attached)

The net result, as you can see if you plow through the many pages of detailed technical arguments attached, is that neither DuPont nor NIEHS was able to detect any PCDF at all in the used PCB transformer oil, but neither wanted to go on record stating this negative finding in plain English.

Sincerely,



John F. Brown, Jr.
Mgr - Life Sciences Branch
PHYSICAL CHEMISTRY LABORATORY

cc: M Aven
JB Bush