

7E in Blood (Lhura)

C. Rick Dani
10/24/77
T.O.

Interoffice Correspondence **3M**

Subject:

October 19, 1977

CONFIDENTIAL

RECEIVED

OCT 20 1977

I. J. SCHEUERMAN

TO: J. D. LAZERTE
T. J. SCHEUERMAN
F. A. UBEL

FROM: L. C. KROGH

In order to help you with your preparations for the presentation on November 7 to the Corporate Responsibility Committee, I am enclosing copies of the transparencies used in the last report.

I was in error yesterday, we last reported to the Corporate Responsibility Committee on November 8, 1977, not in February.

LCK
LCK:jmb
encl.



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Trial Exhibit 1202

Exhibit
2702

State of Minnesota v. 3M Co.,
Court File No. 27-CV-10-28862

3M_MN00000479

2702.0001

ORGANIC FLUORINE COMPOUNDS IN BLOOD

CHRONOLOGY

- AUGUST 22, 1975 - DR. J. D. LA ZERTE RECEIVES CALL FROM W. S. GUY OF UNIVERSITY OF ROCHESTER.
- AUGUST 25, 1975 - W. S. GUY, D. R. TAVES, AND W. S. BREY, JR. PRESENT A PAPER AT CHICAGO ACS MEETING ENTITLED "CHARACTERISTICS AND CONCENTRATIONS OF ORGANIC FLUORO COMPOUNDS FOUND IN HUMAN TISSUES."
- SEPTEMBER 17-21, 1975 - CENTRAL RESEARCH ANALYTICAL TO COMPARE $C_7F_{15}COOH$ AND $C_8F_{17}SO_3H$ NMR SPECTRA WITH THAT REPORTED BY GUY ET AL.
- SEPTEMBER 22, 1975 - TAVES CALLS J. D. LA ZERTE TO DETERMINE IF 3M WILL FURTHER ANALYZE THEIR SAMPLE OF FLUROCHEMICAL. ALSO ASKS 3M TO OPEN CONTENTS OF FDA PETITION ON "SCOTCHBAN."
- OCTOBER, 1975 - CENTRAL RESEARCH ANALYTICAL AGREES TO DETERMINE QUANTITY AND CHARACTER OF ORGANIC FLUORINE COMPOUNDS IN HUMAN BLOOD.
- NOVEMBER 6, 1975 - CENTRAL RESEARCH REPORTS THAT $C_8F_{17}SO_3H$ SPECTRA MATCHES THAT PRESENTED BY GUY, ET AL.
- DECEMBER 16, 1975 - LA ZERTE, FREIER, AND LONG OF 3M VISIT GUY AND TAVES AT THE UNIVERSITY OF ROCHESTER. 3M PROPOSES, AND GUY AND TAVES AGREE THAT 3M WILL ATTEMPT TO ISOLATE AND IDENTIFY ORGANIC FLUORINE COMPOUNDS IN HUMAN BLOOD.

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CHRONOLOGY - PAGE 2

- FEBRUARY 17, 1976 - CENTRAL RESEARCH ANALYTICAL DEVELOPS AN ACCURATE ANALYTICAL METHOD FOR DETERMINING PARTS PER BILLION QUANTITIES OF ORGANIC FLUORINE COMPOUNDS IN HUMAN BLOOD. METHOD TESTED ON BLOOD FROM AMERICAN RED CROSS AND VALUE AGREES WITH THOSE IN LITERATURE.
- APRIL 14, 1976 - FOUR LABORATORY PERSONNEL HAVE BLOOD SAMPLES ANALYZED. CONCENTRATION OF ORGANIC FLUORINE COMPOUNDS IN SOME PERSONNEL 100 TIMES NORMAL.
- JUNE 29, 1976 - SOME CHEMOLITE PERSONNEL SHOW ORGANIC FLUORINE COMPOUNDS AT 1,000 TIMES NORMAL.
- AUGUST 23, 1976 - CORDOVA PERSONNEL EXPOSED TO FLUORO-CHEMICALS HAVE UP TO 50 TIMES NORMAL VALUES.
- AUGUST 26, 1976 - CENTRAL RESEARCH ISOLATES AND IDENTIFIES ORGANIC FLUORINE COMPOUNDS FROM BLOOD OF CHEMOLITE PERSON AS $C_{715}F_{15}COOH$.
- SEPTEMBER 9, 1976 - MICE FED "SCOTCHBAN." HAD 4,000 TIMES NORMAL ORGANIC FLUORINE COMPOUNDS.
- SEPTEMBER 17, 1976 - $C_{817}F_{17}SO_3H$ IDENTIFIED AS ORGANIC FLUORINE COMPOUND IN MICE FED "SCOTCHBAN."
- OCTOBER 8, 1976 - DECATUR PLANT PERSONNEL FOUND TO HAVE UP TO 300 TIMES NORMAL LEVELS.
- INDIVIDUALS EXPOSED TO FLUORO-CHEMICALS OVER 20 YEARS AGO HAVE NORMAL ORGANIC FLUORINE COMPOUND LEVELS.

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CHRONOLOGY - PAGE 3

OCTOBER 28, 1976

- DR. LEON SINGER OF THE BIOCHEMISTRY DEPARTMENT, UNIVERSITY OF MINNESOTA, CALLS TO OBTAIN SAMPLES OF $C_7F_{15}COOH$.
- DR. SINGER REPORTS THAT HE HAS HAD CONVERSATIONS WITH TAVES. ALSO REPORTS THAT ANIMALS FED INORGANIC FLUORIDE SHOW INCREASES IN ORGANIC FLUORINE BLOOD LEVEL.

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ORGANIC FLUORINE COMPOUNDS IN BLOOD

STATUS AT 3M

1. NO EVIDENCE NOW OF RELATED HEALTH PROBLEMS.
2. 3M MEDICAL DEPARTMENT INITIATING PROGRAM TO STUDY BLOOD CHEMISTRY OF EXPOSED PERSONNEL.
3. NO EVIDENCE THAT THE PROBLEM EXISTS WITH 3M'S CUSTOMERS.
4. FUNDS ARE BUDGETED TO CONTINUE THE PROGRAM STUDY UNTIL WE ARE SATISFIED:
 - (A.) THAT THERE IS NO HEALTH HAZARD INCURRED BY 3M EMPLOYEES; AND,
 - (B.) THAT THE CONTINUED SALE OF OUR FLUOROCHEMICALS FOR VARIOUS PURPOSES DOES NOT ENDANGER THE PUBLIC'S HEALTH.

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FLUORINE CONTENT OF BLOOD SERUM

	<u>ORGANIC FLUORINE P.P.B.</u>	<u>INORGANIC FLUORINE P.P.B.</u>
1. LITERATURE VALUES	2 - 130 AVE. 30	3 - 170 AVE. 20
2. 3M CONTROLS	10 - 80	40 - 60
3. LABORATORY BUILDING 236	430 - 3,100	30 - 360
4. CORDOVA	160 - 630	50 - 870
5. CHEMOLITE	510 - 38,800	50 - 90
6. DECATUR	130 - 9,840	40 - 210

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SOURCES OF FLUORINE

INORGANIC

Sn F_2 TOOTHPASTE, DENTAL CARE.

F^- FLUORIDIZED WATER

ORGANIC

3M

$\text{CF}_3 \text{ CF}_2 \text{ CF}_2 \text{ CF}_2 \text{ CF}_2 \text{ CF}_2 \text{ CF}_2 \text{ COOH}$
 $\text{CF}_3 \text{ CF}_2 \text{ SO}_3 \text{ H}$

OTHERS

STEROIDS
TRANQUILIZERS
ANESTHETICS
HERBICIDES
TEFLON
AEROSOL PROPELLANTS
REFRIGERANTS

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