



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SURVEILLANCE AND ANALYSIS DIVISION

REGION VII
25 FUNSTON ROAD
KANSAS CITY, KANSAS 68115

*objected to
please say
Not a duntled 8.69*

April 25, 1979

Dr. H. Denny Donnell, Director
Section for Disease Control
Missouri Division of Health
P.O. Box 570
Jefferson City, Missouri 65101

Dear Dr. Donnell:

During our phone conversation on April 23, 1979, I agreed to advise you of the status of our attempts to confirm the presence of dioxin in the material spilled in Sturgeon, Missouri and to determine which dioxin isomer was present in the material. We are now sure that dioxin (specifically a tetrachloro-dibenzo-p-dioxin or TCDD) was present in the spilled material at a concentration of approximately 20 parts per billion. The second part of your question is more difficult to answer. There are 22 theoretically possible TCDD isomers. Presently we believe the TCDD present in the spilled product includes one or more of the following five isomers:

2,3,7,8-TCDD
1,2,3,8-TCDD
1,4,6,9-TCDD
1,2,3,4-TCDD
1,2,6,9-TCDD

This conclusion is based on the retention time we have observed for the TCDD in the spilled product relative to retention times of other isomers published in the literature. Since we have not yet been able to differentiate between the five compounds listed, we are therefore treating the material as if it were the highly toxic 2,3,7,8-TCDD isomer.

I am sure from our conversation that I have not answered all of your questions. I am equally sure that you realize we are working on the

500-10

frontier of science and fully appreciate the analytical problems involved in providing the answer you seek.

Sincerely yours,

Billy J. Fairless
Chief, Laboratory Branch
Surveillance and Analysis Division
Region VII

cc: Carl Blomgren
Harry Gilmer

~~EQ0501~~

EQ0001