



K7

Interoffice Communication

To C. E. Gremillion
From P. L. Fetzer
Date January 25, 1977
Subject Deregulation of Laboratory Regulated Area

The last corrective step to reduce the vinyl exposure to laboratory analyst was completed September 2, 1976. This consisted of enclosing the area above the west hood. To determine the effectiveness of this corrective step a statistical analysis was undertaken. All data points from the fixed point monitor for a three week period prior to and after enclosing were tabulated. A frequency distribution for those points over 1 ppm, over 10 ppm and the average concentration were obtained. This information is shown on the attached table.

I recommend the laboratory be deregulated based on the following:

- 1) A 53.6% reduction in the frequency of consecutive points over 1 ppm
- 2) The average concentration, of 0.41 ppm, decreasing below the action level

The temporary enclosure above the hood should be reinstalled so that hood maintenance and lab light maintenance can be accomplished.

A handwritten signature in cursive script, appearing to read "P. L. Fetzer".

P. L. Fetzer

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VVC 000010009

	No. of Total Data Points	Average Concentration ppm VCM	Frequency of Consecutive Points Over 1 ppm													Percent of Time of Consecutive Point Over 1 ppm
			2	3	4	5	6	8	9	10	12	13	14	18	35	
BEFORE	2598	.71	37	15	3	1	5	3	2	2	1	1	1	1	1	12.32
AFTER	2460	.40	14	8	4	5	2	2		2						5.73

	No. of Total Data Points	Frequency of Consecutive Points Over 10 ppm			Percent of Time of Consecutive Point Over 10 ppm
		3	4	5	
BEFORE	2598	2	2	2	0.92
AFTER	2460	0	0	1	0.41

TOTAL PERCENT OF TIME OF CONSECUTIVE
VALUES OVER 1 ppm

BEFORE
13.24

AFTER
6.14

VCM 000010010



Interoffice Communication

To C. E. Gremillion
From P. L. Fetzner
Date March 9, 1977
Subject Deregulation of the Laboratory Regulated Area

The tank car samples are normally analyzed between 0800 and 1200 hours each day there are shipments. The attached tables I, & II shows the individual fixed point monitoring data for the Laboratory during this time period. The four hour, one-hour and highest twenty minute averages are shown for each day that data was available. An asterisk indicates those days when tank cars were loaded.

This data shows the highest twenty minute average to be 2.1 ppm, well below the fifteen minute limit of 5.0 ppm. The highest value for any one hour exposure was 1.06 ppm and the four hour value was 0.41 ppm. These values indicates the high exposure previously experienced during the tank car analysis has been corrected.

The fixed point monitor hourly summary sheet was examined for January and February. Only six values out of 1416 data points exceed 1 ppm, the highest value being 4.0 ppm.

The number of Laboratory dosimeter testing during 1976 were tabulated for the time periods, January thru August, September thru December and January thru February for 1977. These periods correspond to the time prior and following enclosing the space above the vent hood. The data (see table III) shows that no exposures above 1 ppm has occurred since this corrective step was taken.

Based on the evaluation of this data, it is recommended that the Laboratory regulated area be deregulated.

P. L. Fetzner

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cc:
JAD-GLF

VVC 000010011

TABLE I
LABORATORY FIXED POINT MONITORING DATA
JANUARY - 1977

DATES	Time				Averages		
	0800-0900	0900-1000	1000-1100	1100-1200	20 min.	1 hr.	4 hr.
1-1	.1,.1,.1,.1,.1	.1,.1,.1,.1,.1	.1,.1,.1,.1,.1	.1,.1,.1,.1,.1	.1	.1	.1
1-2	.1,.1,.1,.1,.1	.1,.1,.1,.1,.1	.1,.1,.1,.1,.1	.1,.1,.1,.1,.1	.1	.1	.1
1-3*	.2,.2,.2,.3,.2,.2	.1,1.0,4,7,2.5,1.7	.7,4,.2,.1,.1,.1	.1,.1,.1,.1,.1	2.1	1.06	.41
1-4*	.1,.1,.1,.1,.1,.2	.2,.1,.1,.1,.1,.1	.1,.1,4,.2,.1,.2	.2,.1,.2,.6,.9,.1	.75	.35	.18
1-5	.1,.1,.1,.1,.1,.1	.2,.1,.2,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.15	.13	.11
1-6*	.3,.2,.3,.2,.1,.1	.1,.1,7,.9,.2,.1	.1,.2,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.80	.35	.20
1-7	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
1-8	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
1-9	.3,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.20	.13	.11
1-10*	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.2,.3,.4,.4,.7	.55	.35	.16
1-11*	.1,.1,.1,.1,.1,.1	.1,.1,.1,.4,.4,.4	.6,.3,.1,.1,.1,.1	.1,.1,.1,.1,.6,.1	.50	.25	.19
1-12*	.1,.7,.2,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,9,.4,.1,.1	.1,.1,.1,.6,.7,.7	.65	.38	.25
1-13*	.2,.2,.2,.2,.2,.2	.1,.2,.2,.1,.4,.2	.2,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.30	.20	.15
1-14*	.1,.1,.1,.3,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.8,.1,.5	.7,.2,.1,.1,.1,.1	1.15	.43	.23
1-15	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
1-16	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
1-17*	.1,.1,.1,.1,.1,.1	.4,.1,.1,.1,.1,.1	.1,.5,1.4,.7,.4,.1	.1,.1,.1,.1,.1,.1	1.05	.53	.22
1-18*	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.7,.1,.1,.1	.1,.1,.1,.1,.1,.1	.40	.20	.13
1-19*	.3,.2,.3,.3,.2,.2	.1,.1,.3,.1,.1,.1	.1,.1,.3,.1,.1,.1	.1,.1,.1,.1,.1,.1	.30	.25	.15
1-20*	.3,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.5,1.0,1.1,.6,.1,.1	.1,.1,.1,.1,.1,.1	1.05	.57	.23
1-21*	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.5,.2,.5,.3,.3,.8	.9,1.6,.3,.2,.2,.2	1.25	.57	.30
1-22	.4,.2,.2,.2,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.30	.20	.13
1-23	.1,.2,.3,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.25	.15	.11
1-24*	.1,.1,.3,.3,.3,.3	.4,.2,.4,.6,.2,1.6	1.2,.2,.2,.2,.1,.1	.1,.1,.1,.1,.1,.1	1.40	.57	.31
1-25	Not Available						
1-26	" "						
1-27	" "						
1-28	" "						
1-29	" "						
1-30	" "						
1-31*	.2,.2,.5,.1,.1,.1	.1,.1,.4,.5,.6,.4	.2,.3,.2,.1,.3,.2	.1,.1,.1,.1,.1,.1	.55	.35	.22

TABLE II
LABORATORY FIXED POINT MONITOR DATA
FEBRUARY - 1977

DATES	TIME				AVERAGES		
	0800-0900	0900-1000	1000-1100	1100-1200	20 min.	1 hr.	4 hr.
2-1-77 *	.5,.3,.1,.3,.3,.2	.1,.2,.2,.1,.4,.2	.1,.1,.1,.1,.1,.1	.1,.1,.2,.1,.1,.2	.40	.28	.18
2-2-77 *	.1,.1,.3,.2,.1,.1	.1,.1,.1,.1,.7,.2	.7,.5,.1,.1,.2,.1	.1,.1,.1,.1,.1,.1	.60	.28	.19
2-3-77	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-4-77	.2,.2,.4,.5,.3,.1	.1,.1,.1,.1,0,.1	.1,.1,.1,.1,.1,.1	.7,.7,.2,.2,.2,.1	.70	.35	.24
2-5-77	.1,.1,.1,.1,.1,.1	.1,.1,.4,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.25	.13	.11
2-6-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-7-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-8-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.3,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.20	.13	.11
2-9-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.3	.1,.1,.1,.1,.1,.1	.20	.13	.11
2-10-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.3,.1,.1,.1	.1,.1,.1,.1,.1,.1	.20	.13	.11
2-11-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-12-77	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-13-77	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-14-77*	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.2,.1,.1	.15	.12	.11
2-15-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.4,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.25	.15	.11
2-16-77 *	.1,.1,.1,.3,.2,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.3,.1	.1,.1,.1,.1,.1,.1	.25	.15	.12
2-17-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-18-77 *	.1,.7,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.7,.3,.2,.1,.1,.1	.1,.1,.1,.1,.1,.1	.50	.25	.16
2-19-77	.1,.1,.1,.1,.1,.1	.5,.2,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.35	.18	.12
2-20-77	.1,.1,.1,.2,.1,.1	.1,.1,.1,.1,.1,.3	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.20	.13	.11
2-21-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10
2-22-77 *	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.1,.1,.1,.1,.1,.1	.10	.10	.10

TABLE III
LABORATORY PERSONNEL
DOSIMETER DATA

<u>1976</u>	<u>No. Analyzed</u>	<u>No. Over 1 ppm</u>
Jan thru Aug (Before enclosing Hood)	20	3 (1.66 highest value)
Aug thru Dec	9	0
<u>1977</u>		
Jan thru Feb	4	0



Interoffice Communication

To J. H. McCulley
From P. L. Fetzer
Date August 13, 1976
Subject Stream Sampling - EDC Exposure

Shown below are the results from the personnel dosimeter testings conducted while sampling the EDC streams in Blk I and II.

Date	Time-hr.	BLK I		BLK II	
		VCM	EDC	VCM	EDC
8-6	0.25			0.87	0.0
	0.25	0.0	1.6		
	0.25			0.0	0.0
	0.25	1.25	36.9		
8-9	0.25			0.01	2.00
	0.25	0.01	0		
8-10	7.0			2.45	1.51
8-11	0.50	0.0	0.0		
	0.25			1.64	0.0

P. L. Fetzer

bc

CC: JAD, JF, JRH, CEG

VVC 000010015