

To: F. B. Darr

Date: October 8, 1979

Location: Wayne

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From: J. S. Tobin, M.D.

Location: Wayne

Subject: BLOOD LEAD LEVELS CHICAGO PLANT

Reference:

RECEIVED
AMERICAN CYANAMIDE CO
4500 W 15th ST
CHICAGO, ILL 60623

Recently our attention has been called to the fact that the trend of reduction of blood levels from 1976 through 1978 has been reversed. The mean value has increased slightly, as has the median. The number of values over 59 mcg and over 79 mcg has increased significantly. We do not yet have a horrendous situation here but we do have one which is deteriorating. Unless we are able to identify the causative factors and reverse the trend, I believe we will have a major problem in the not too distant future.

1978 and 1979. The significant point in the analysis is that the trend of reduction of blood levels from 1976 through 1978 has been reversed. The mean value has increased slightly, as has the median. The number of values over 59 mcg and over 79 mcg has increased significantly. We do not yet have a horrendous situation here but we do have one which is deteriorating. Unless we are able to identify the causative factors and reverse the trend, I believe we will have a major problem in the not too distant future.

J. S. Tobin, M.D.

JST/pl
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Statistical Analysis

Employee Blood Levels

Chicago Plant

1976, 1977, 1978, and 1979 (partial)

Notes:

1. The sigma (Σ) values represent the summation of the individual blood lead values and is presented for use in further calculations.
2. The units for mean, and median, are micrograms of lead per 100 grams of whole blood.
3. "Over 59" and "Over 69" refer to the number and percent blood lead values over these limits, the limits being expressed in micrograms of lead per 100 grams of whole blood.
4. Where dashes appear in the tables the omitted calculations have no significance.

CYWI 3-000962

N14733.01

BLOOD LEAD DETERMINATIONS, CHICAGO PLANT

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Month	Number of Tests	Σ	Mean	Median	Over 59		Over 69	
					Number	Percent	Number	Percent
January	14	725	51.9	53	4	28.6	0	0
February	8	515	64.4	67	6	75.0	3	37.5
March	20	1095	54.8	54	7	35.0	3	15.0
April	12	870	72.5	68	11	91.7	6	50.0
May	17	1002	58.9	59	8	47.1	4	23.5
June	15	1068	71.2	72	14	93.3	7	46.7
July	17	920	54.1	55	6	35.3	2	11.8
August	6	400	66.7	64	4	66.7	2	33.3
September	19	1003	52.8	56	5	26.3	2	10.5
October	8	510	63.8	61	5	62.5	3	37.5
November	19	891	46.9	48	5	26.3	1	5.3
December	6	355	59.2	56	2	33.3	2	33.3
Total for year:	161	9354	-	-	77	-	35	-
Average for year:	13.4	-	58.1	59.4	6.4	47.8	2.9	21.7

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Month	Number of Tests	Σ	Mean	Median	Over 59		Over 69	
					Number	Percent	Number	Percent
January	19	855	45.0	47	4	21.1	1	5.3
February	13	789	60.7	65	7	53.8	4	30.8
March	22	994	45.2	50	3	13.6	0	0
April	6	332	55.3	60	2	33.3	1	16.7
May	31	1906	61.5	59	15	48.4	8	25.8
June	11	711	64.6	62	8	72.7	4	36.4
July	14	690	49.3	52	5	35.7	0	0
August	17	837	49.2	49	2	11.8	1	5.9
September	10	516	51.6	56	5	50.0	1	10.0
October	16	840	52.5	52	3	18.8	1	6.0
November	11	551	50.1	47	2	18.2	0	0
December	0	-	-	-	-	-	-	-
Total for year:	170	9021	-	-	56	-	21	-
Average for year:	14.1	-	53.1	49.9	4.7	32.9	1.75	12.4

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BLOOD LEAD DETERMINATIONS, CHICAGO PLANT

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Month	Number of Tests	Σ	Mean	Median	Over 59		Over 69	
					Number	Percent	Number	Percent
January	25	1252	50.1	48	7	28.0	3	12.0
February	19	1458	76.7	79	18	94.7	17	89.5
March	32	1613	50.4	51	9	28.1	3	9.4
April	8	424	53.0	54	1	12.5	0	0
May	25	1040	41.6	37	2	8.0	0	0
June	8	405	50.8	51	1	12.5	0	0
July	21	952	45.3	44	2	9.5	0	0
August	11	445	40.5	45	2	18.2	1	9.1
September	28	1404	50.1	51	7	25.0	2	7.1
October	14	821	58.6	70	7	50.0	4	28.6
November	23	916	39.8	43	0	0	0	0
December	5	224	44.8	42	1	20.0	0	0
Total for year:	219	10954	-	-	57	-	30	-
Average for year:	18.25	-	49.9	51.3	4.75	25.5	2.5	13.0

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Month	Number of Tests	Σ	Mean	Median	Over 59		Over 69	
					Number	Percent	Number	Percent
January	31	1325	42.7	45	3	9.7	2	6.5
February	16	918	57.4	62	11	68.8	9	56.3
March	47	2748	58.7	64	27	57.4	10	21.3
April	22	839	45.2	51	4	18.2	2	9.1
May	22	1096	49.8	53	8	36.4	1	4.5
June	25	1336	53.4	58	11	44.0	4	16.0
July	19	989	52.1	52	4	21.1	1	5.3
August	18	1093	60.7	68	10	55.6	9	50.0
Total year to date: 200		10444	-	-	78	-	38	-
Average year to date:	25	-	52.2	56.9	9.8	39.0	3.2	19.0

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