

Ince 344536

AIR QUALITY VALUE FOR LEAD

Ajor et al Data - Second Analysis

B = Blood Pb

A = Air Pb

Compute and generate Histo for

$$Z_1 = B \left(\frac{5.78}{A + 3.28} \right)^{.2669}$$

$$Z_2 = B \left(\frac{2.5}{A} \right)^{.153}$$

log Z_1

Log Z_2

Z_1^λ

$\lambda = .25, .30, .35$

Z_2^λ

$\lambda = .25, .30, .35$

TOTAL OF 10 HISTOS

AIR Pb = 2.5

1/24/77

EXPOSURE MODEL

	<u>Blood Pb</u>	<u>AQV</u>
50	18.3	4.8
90	26.0	6.6
97.5	31.2	5.6

	<u>(Blood Pb)^{.3}</u>		
50	18.2	(18.3)	4.9 (4.8)
90	26.3	(26.3)	6.2 (6.2)
97.5	31.5	(31.3)	5.3 (5.5)

	<u>(Blood Pb)^{.3} - Normal</u>	
50	18.2	4.9
90	26.3	6.2
97.5	31.5	5.3
98	32.2	4.6

$$AQV = (A + 3.28) \left(\frac{B_z}{B} \right)^{\frac{1}{1.2669}} - 3.28$$

$$= (2.5 + 3.28) \left(\frac{B_z}{B} \right)^{\frac{1}{1.2669}} - 3.28$$

5.78

Conclude no real difference from calculations
at Air Pb = 0

TEH 0470429

DUP050083248

1/24/77

LOG-LOG MODEL AIR Pb=2.5

	<u>BLOOD Pb</u>	<u>AQV</u>
50	19.0	3.5
90	26.7	5.4
97.5	32.1	4.4

	<u>(BLOOD Pb)^{.15}</u>
50	19.0
90	26.7
97.5	32.2

	<u>(BLOOD Pb)^{.15} - NORMAL</u>	
50	19.0	3.5
90	26.9	5.1
97.5	32.1	4.4
98	32.9	3.7

$$AQV = A \left(\frac{B_z}{B} \right)^{\frac{1}{.153}}$$

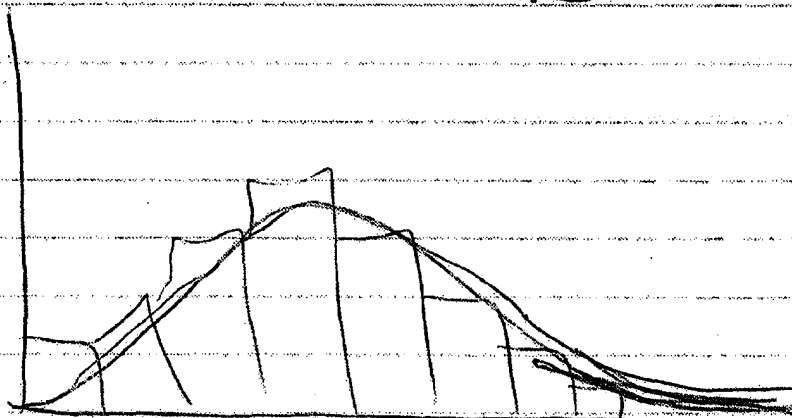
TEH 0470430

DUP050083249

1/14/77

7 dists ✓

al Pahnke
~~Emett~~ Emmett Jacobs
Don Digap
RDS



mean
 σ
Skewness
Kurtosis

(BLOOD Pb) ^{λ}

$$\lambda = 0 \Rightarrow \text{LOG}$$

$$\lambda = 1$$

TEH 0470431

DUP050083250

AZAR Data

{ Comment on EPA Std
Zielhaus + Safety factors

Conclude 5 has an ample margin
of safety

7 Cities - Certain Difficulties
~~also~~ also supports Azar

APPENDIX - alternatives

Cover
Letter
Executive
Summary

{ AQS
Analytical Methods
Lead Trends Paper
Detailed Comments

MEDICAL

establish AQS
for Pb

Footnote (b ≠ 0.5)
alternative model

TEH 0470432

DUP050083251

1/7/77

al Pahrke

Oxygen Data — use $\Delta = 1$

adjust all Blood Pb's
to 0 air Pb & find 98%

35 — 98% = Air Quality Std

al Pahrke

1/8/77

The above procedure seems to work

as looked at the top 15 or 20

blood Pb's and concluded

an air quality standard of $5 \mu\text{gm}/\text{m}^3$

is consistent with a 98% of $35 \mu\text{gm}/100\text{ml}$

TEH 0470434

DUP050083252

1/11/77

al Pahnke

① $97.5 - 28.5 - 35 = \underline{\underline{7.0}}$

~~Recompute~~ ?

what model
should we use

② ^{RDS} Report summarizing the work

to be attached to submittal

not long

Include copies of Ayar report
etc

TEH 0470435

DUP050083253

Connett Jacobs

1/7/77

EPA

→ Science Advisory Board

1/31/79

9:00 AM

Deadline 1/20/77

Conf Room A
Orlinton Va
near Airport

→ Don DeGgs meeting with ILSRO on Monday

1/10/77

→ ~~Industries~~ EPA required by law to
listen to this advisory Board
Subcommittee on Consumer Pb

"Air Quality Criteria for Atmospheric Pb"

External Review Draft 11/76

~~to~~ → 703-557-7720

make a reservation
by 1/24/77

Gene Berner > Freeman®

NRDC filed suit to force EPA to set a
std - EPA lost

TEH 0470436

DUP050083254

(2)

Issue sometime in August 1977

TEH 0470437

DUP050083255