

January 27, 1994

TO: Epi File  
FROM: Jim Mangum  
Public Health Representative  
SUBJECT: Tire and Battery Follow-up Investigation

#### Background

In May, 1991 the National Institute for Occupational Safety and Health conducted a Health Hazard Evaluation at the Tire and Battery Distributing Company. This evaluation was conducted in response to a request for technical assistance by the OSHA regional office in Birmingham. OSHA had received a referral from the Alabama Department of Public Health's blood lead surveillance activity reporting elevated levels in 13 employees.

In October, 1991 a screening of residents nearest the facility was undertaken by the Surveillance and General Epidemiology Section of the JCHD Bureau of Disease Control to determine their blood lead levels. Those persons tested were considered at highest risk of exposure due to their proximity to the facility. (For results of this investigation see Summary Report, Tire and Battery Lead Exposure Study - October, 1991).

In June, 1992 Matt Taylor of the Environmental Protection Agency (EPA) contacted JCHD Bureau of Disease Control to inform us that EPA had expanded their investigation to include soil samples taken from the houses in the block of Avenue E immediately adjacent to the facility. Mr. Taylor requested we also extend our collection of venous blood for lead testing to these residents.

#### Method

Residents were notified in person or by letter that JCHD personnel would be in their neighborhood on Tuesday June 9, 1992 to collect blood samples to be tested at no cost to them (attachment 1). Arrangements were made to have blood drawn on those residents unavailable on that day.

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During the period June 9 - July 7, 1992 a total of 54 blood samples were collected, 53 by health department personnel and one by personnel at St. Vincent's Bruno Cancer Center.

Those specimens collected by JCHD were submitted to the Alabama State Health Department Laboratory in Montgomery for lead level determination.

### Results

The median age among the 54 residents tested was 30.5 years with a range of 3 to 88 years. Blood lead levels ranged from 1 mcg/dl to 26 mcg/dl. The median result was 6 mcg/dl. Among those residents tested, 16 (29.6%) were less than 17 years of age. In this group results ranged from 4 mcg/dl to 26 mcg/dl with a median of 14.5 mcg/dl. Eight (50%) of this group had blood lead levels of 15 mcg/dl or higher. Of these, six resided in three households.

### Discussion and Follow-up

Those individuals with blood lead levels of 15 mcg/dl or higher were notified of their results in person and counselled on the meaning of the results. They were also provided with the Jefferson County Department of Health Pamphlet What Everyone Should Know About Lead Poisoning. Case report questionnaires were also completed at this time. Residents with results less than 15 mcg/dl were notified by mail (attachment 2).

Two households were referred for environmental assessment by the JCHD Bureau of Environmental Health. One was completed (attachment 3), while one family asked that the assessment be delayed until the child with elevated lead returned from Nevada in September. A third household had an assessment completed in October, 1991 as a part of the initial : investigation (attachment 4). At that time the present residents did not live at this location.

Present plans are to retest those persons with elevated blood lead levels, beginning in September. This will enable us to determine whether or not efforts by the EPA to remove lead-contaminated soil from the lawns of residents on Avenue E have been effective in reducing blood lead levels among those who were found to be elevated in this study.

Summary Sheet - Pb Testing Results  
Ensley Neighborhood Near

Age	Date Tested	Results (mcg/dl)
31	6/30/92	18
30	6/30/92	3
5	6/30/92	9
50	6/10/92	4
43	6/10/92	6
45	6/10/92	5
21	6/10/92	6
49	6/10/92	14
49	6/10/92	7
7	6/10/92	26
13	6/10/92	16
26	6/10/92	3
12	7/02/92	Pending
3	7/02/9	Pending
88	St Vincent tested	3
70	6/10/92	5
76	6/10/92	6
6	6/10/92	19
59	6/10/92	7
74	6/10/92	4
38	6/10/92	2
40	6/10/92	3
28	6/11/92	3

Age	Tested	(mcg/dl)
30	6/11/92	5
61	6/12/92	6
58	6/12/92	3
31	6/17/92	2
8	6/17/92	5
28	6/17/92	4
40	6/17/92	4
65	6/10/92	6
26	6/10/92	5
56	6/10/92'	10
80	6/10/92	15
9	6/10/92	25
23	6/10/92	4
7	6/10/92	15
32	6/12/92	17
8	6/12/92	23
12	6/12/92	19
67	6/15/92	5
41	6/15/92	12
36	6/15/92	11
65	6/15/92	1
39	6/17/92	10
41	6/17/92	9
37	6/24/92	Pending
16	6/26/92	Pending
13	06/26/92	Pending

Age	Tested	(mcg/dl)
10	6/26/92	Pending
9	7/02/92	Pending
9	7/02/92	Pending
		4
		3

\*Referred to Environmental Health for home assessment.

All residents with Pb levels equal to or greater than 15 mcq/dl received counseling regarding the risk of Pb toxicity and will have their test repeated by CD in 3 months. All residents tested received a verbal and written report of their results with appropriate explanation of laboratory result.