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State Health Officer

State of Alabama Department of Public Health

State Office Building
Montgomery, Alabama



MAILING ADDRESS
434 Monroe Street
Montgomery, Alabama 36130-1701

June 9, 1992

MEMORANDUM

TO: James W. Cooper, Director
Bureau of Environmental and Health
Service Standards

FROM: Rachel Parrish *RP*
Ronald Dawsey
Charles Brookins

SUBJECT: Site visit, elevated blood lead levels

BACKGROUND

On June 5, 1992, a visit to the home (Highland Home, AL) was made by Charles Brookins, Rachel Parrish and Ronald Dawsey as a follow-up to an earlier visit made by Gary Jones to investigate possible environmental factors causing elevated blood lead levels in the children. Mr. Jones had previously collected three soil samples from around the residence and shop and a water sample from the residence.

SITE

The family lives in a mobile home next to two metal buildings. The yard is sandy. The site was previously an auto repair shop and still has junk parts scattered around the premises. Mr. and a helper were loading junk on a trailer to be hauled away when we arrived. One metal building is now being used as a pottery gazing and firing shop by The pottery being glazed and fired is figurine type: unicorns, frogs, etc. No eating utensils are made at the shop. The other building appears to be used for junk storage including some auto batteries. The soil around both buildings was oily, apparently from mechanic work.

RESIDENCE

The residence was dirty. Carpets were dirty and the kitchen floor was covered with greasy dirt. The trailer is old and

being repaired in spots. The hall floor is bare plywood with several gaps (open spaces) in the floor exposing the ground under the trailer. Window screens were torn and many flies were inside the residence. Waste water from tub and sink spills on the ground behind the trailer. Baby bottles were lying on the dirty floor. Ceramic dishware from Japan is being used by the adults.

SAMPLES

Wipe samples were taken from inside the residence from the kitchen floor, the girl's play table, the hall floor (at the entrance), the little boy's room carpet and the little boy's crib. A wipe sample was taken from the outside trailer wall at the entrance. Samples were also taken from work tables inside the pottery shop and floor dust from the shop.

INTERVIEW WITH PARENTS

According to Mrs. [redacted], the children are not allowed in the pottery shop. The parents change pottery clothes immediately upon entering the residence; pottery clothes are not washed with children's clothes. Th. [redacted] started working in pottery about a year before the youngest child was born.

The children are two years old (girl) and fourteen months old (boy). The oldest child had a habit of eating dirt. Mrs. [redacted] says the adults may eat in the shop but denies the children are fed there.

OBSERVATIONS

We entered the pottery shop with Mrs. [redacted] and both children came with her. The floor of the shop is coated with dust. The children walked through it. Mrs. [redacted] put the 14 month old in a swing already set up in the shop. Eating utensils were scattered around and a work table had a drink cup on it. Two TV's are in the shop. Some jars of glaze were labeled "lead hazard."

SUMMARY

The readily suspected areas as possible sources of environmental lead are (1) contaminated soil from old auto repair operations and (2) lead glaze used in the ceramics. Mrs. [redacted] appeared concerned about the children's condition although the shop set-up (with the swing) did not seem consistent with the statements about the children not being

allowed in the shop. The children's access to the shop and the parents' handling of children while wearing contaminated clothing would be the areas of greatest concern for allowing lead ingestion. The samples we collected were taken to the ADEM lab June 8, 1992.

cc: Sal Gray
Wade Pitchford
Billy W. Knight

crh



State of Alabama
Department of Public Health



State Office Building
Montgomery, Alabama

June 12, 1992

Claude Earl Fox, M.D., M.P.H.
State Health Officer

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MEMORANDUM

FILE COPY

TO: James W. Cooper, Director
Bureau of Environmental and Health Service Standards

FROM: Charles Brookins *CB*
Indoor Air Quality Branch
Division of Community Environmental Protection

SUBJECT: Elevated Blood Lead Wipe Sample Results and
Recommendations

On June 5, 1992 Rachel Parrish, Ron Dawsey and I made a visit to the home in Highland Home, Alabama. This was a follow-up to an earlier visit made by Gary Jones for the purpose of collecting wipe samples and making a visual observation of operations of the family's ceramics/pottery business.

Lead wipe sample collection areas and results of the samples are as follows:

Mobile Home (inside)

Kitchen

Sample 1 - Reference	Less than detection limits
Sample 2 - Kitchen floor	390 micrograms per sq. ft.

2 year old Girl's Room

Sample 3 - Table top	78.5 micrograms per sq. ft.
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14 month old Boy's Room

Sample 4 - Crib (inside)	22 micrograms per sq. ft.
Sample 5 - Carpet	16.5 micrograms per sq. ft.

Front door area

Sample 6 - Entrance floor	99.2 micrograms per sq. ft.
Sample 7 - Reference	Less than detection limits

Mobile Home (outside)

Sample 8 - Wall	51.9 micrograms per sq. ft.
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Ceramic/Pottery Shop

Sample 9 - Cleaning table	440 micrograms per sq. ft.
Sample 10 - Glaze table	177,000 micrograms per sq. ft.
Sample 11 - Floor	13,800 micrograms per sq. ft.

At the present time, there are no Federal standards governing the level of lead in house dust; however, the HUD Lead-Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing recommends the following clearance criteria for specific interior surfaces:

Floors: 200 micrograms per square foot
Window sills: 500 micrograms per square foot
Window wells: 800 micrograms per square foot

Observations:

1. The kitchen area levels may be high due to:
 - a. mobile home windows being open toward the side of the shop. Indications are that the shop door stays open and the wind blows lead dust toward the mobile home (re: outside mobile home wall wipe sample was 51.9 micrograms per square foot);
 - b. the kitchen being the most used area of the house (eating, watching TV, etc.); and
 - c. a lack of good hygiene practices.
2. The childrens' rooms are on the opposite side of the home from the shop; however, wipe samples indicate lead dust is present in these areas. This is due to the presence of adults wearing work clothes, children visiting the shop area and a lack of good hygiene practices.
3. In the shop, all areas tested indicate high levels of lead dust. It was noted that the children are allowed in these areas, plus the grandmother lives in a small portion of the shop.

On the June 5, 1992 visit we recommended the following:

1. Clean the mobile home - walls and floors of each room.
2. Keep the children at home; make the shop off limits to them.
3. Install a shower at the shop door, shower completely before leaving the shop, and change into clean clothes before entering the house.
4. Improve hygienic practices at the shop, such as not eating, drinking or smoking while in the work place.
5. Improve hygienic practices at home - clean clothes, no baby bottles on the floor, etc.
6. Do not use the pottery for eating purposes.

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Based on this investigation, we recommend the following:

1. The grandmother's living quarters should be moved from the ceramic/pottery shop.
2. Install an exhaust fan to the outside of the building.
Note: the exhausted air should be filtered before being exhausted.
3. Employees should follow OSHA guidelines, by wearing respirators. According to 29CFR 1910.1025, employees should also be monitored by personal air monitors not to exceed 50 mg/cm³ and by blood lead samples not to exceed 40 mg/dL.
Note: There are no standards for wipe samples in the work place.
4. All adults should be tested for elevated blood lead levels.

/emc

cc: Mr. Sal Gray
Mr. Wade Pitchford