Health Consultation

(EXPOSURE INVESTIGATION)

GULF COAST LEAD COMPANY
(a/k/a GULF COAST RECYCLING)

CERCLIS NO. FLD004092839

TAMPA, HILLSBOROUGH COUNTY, FLORIDA

JUNE 22, 2000

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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Prepared by:

Florida Department of Health
Bureau of Environmental Toxicology
Under a Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry

Background and Statement of Issues

The purpose of this exposure investigation was to determine if blood lead levels were elevated in pregnant women and children living near the Gulf Coast Recycling facility in Tampa, Florida. The Florida Department of Health (FDOH) received soil data from the Florida Department of Environmental Protection (FDEP) and the Environmental Protection Agency (EPA). After consulting with the Agency for Toxic Substances and Disease Registry (ATSDR) regarding the lead concentrations, FDOH conducted an Exposure Investigation. The results are applicable only to the participant of this investigation, not to the general population.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common after exposure to high levels of lead.[1]

FDOH proceeded with this investigation to identify if blood levels of children and pregnant women living in the vicinity of Gulf Coast Recycling were elevated. If so, the FDOH could recommend appropriate corrective action and provide lead education to the participants, if warranted.

Gulf Coast Recycling (GCR) is at 1901 North 66th Street in Hillsborough County in Tampa, Florida. GCR began operating in 1964. GCR recycles lead batteries and neutralizes battery acid in a wastewater treatment system. During the mid 1970's, GCR buried battery casings on-site.

In 1998, consultants for GCR sampled soils near the site and found high levels of lead in the ditches along North 66th Street. In May 1999, EPA requested FDOH's assistance to see if people in the neighborhood north, northeast and northwest of GCR had elevated blood lead levels.

In June and July 1999, consultants for GCR sampled soils in the ditches and neighborhood located between North 66th Street, 14th Avenue and North 62nd Street. This area includes Astoria Mobile Home Park. GCR consultants also sampled soils in residential yards west of North 62nd Street. Surface soil lead levels in the ditches range from 60 ppm to 70,000 ppm. The surface soil lead levels in people's yards range from 30 ppm to 1600 ppm. GCR consultants began removal of the contaminated soils in the ditches in June, 1999. In October, 1999 they plan to begin removal of the contaminated soils in the residential yards.

The Hillsborough County Environmental Protection Commission (EPC) is currently monitoring air quality at four stations near the site. The FDEP is monitoring the groundwater quality.

Discussion

The Hillsborough County Health Department (HCHD) and the FDOH offered free blood lead testing to all children younger than 6 years old and pregnant women living near the GCR site

within the boundaries of the area north of the railroad, south of E. Broadway, east of N. 62nd Street and west of N. 70th Street (Attachment 1). Approximately 70 houses are within this area. Since our target population was only for a select group of children and pregnant women, we did not choose to do a neighborhood survey. The FDOH prepared fact sheets describing the upcoming testing and who could participate. The HCHD distributed the flyers one week before the testing date. (Attachment 2).

From August 7, 1999 to August 20, 1999, the HCHD collected blood samples from 16 children younger than six years old to test for lead. No pregnant women participated in the lead blood testing. Each parent signed a consent form accepting responsibility for the testing. On August 7, 1999, the HCHD stationed their mobile health unit at the Astoria Mobile Home Park. The HCHD staff included an Environmental Specialist, a Biomedical Coordinator who collected blood samples and a Spanish interpreter. A volunteer from the Red Cross also helped with miscellaneous duties during the testing. The Exposure Investigation Coordinator with the FDOH answered questions. From August 10 through August 20, 1999, a senior nurse collected blood samples at the Sulfur Springs Health Clinic. The HCHD and the Sulfur Springs personnel collected the blood samples in purple topped vacutainer tubes containing EDTA. They collected at least 2.5 ml of blood from each child. Capillary testing was conducted for those children in which it was difficult to draw blood. The samples were packed on ice in double walled containers. The HCHD shipped and delivered the samples to the FDOH Jacksonville Laboratory. The lab staff analyzed the blood samples for lead using the Perking-Elmer 4100 ZL and 5100 Graphite Furnace A.A. methods.

The FDOH interpreted the laboratory results. Only two of the children younger than six years old had elevated blood lead levels. Those blood lead levels were 11 and 14 micrograms per deciliter (μg/dL).

According to the draft 1998 ATSDR Toxicological Profile for Lead, a blood level greater than 10.0 μg/dL indicates that excessive lead exposure may be occurring.[1] In children, blood lead levels between 10 and 14 μg/dL should trigger community-wide childhood lead poisoning prevention activities.[2] These activities include education on nutrition, keeping lead dust and soil out of the home, avoiding soils contaminated with lead and washing hands often.

On August 20, 1999, the FDOH mailed certified letters to each parent that had their child or children tested. We included a copy of their laboratory results for their review and suggested that they share the results with their physician. For those children who had elevated blood lead levels, we recommended that the parents visit their child's physician and have their child retested within three months, or follow their physician's orders for retesting. In the letters, we also recommended that all children younger than six years old have blood lead testing once a year. Also in August, the HCHD and FDOH provided lead poisoning prevention information to the children's parents after notifying them about their results by phone. The HCHD gave lead prevention information to the parents in person and the FDOH mailed information to those who requested additional information.

On August 30, 1999, about 70 residents living near Gulf Coast Recycling attended an open house at the nearby Kenly Park Recreation Center to speak with FDOH, HCHD, EPC, FDEP and GCR representatives. Residents received responses to their questions about the blood lead testing and soil cleanup in their neighborhood. During the open house the HCHD offered to loan a special vacuum cleaner to those who are concerned with lead dust in their homes.

Conclusions

Only two of sixteen children younger than six years old living in the study had elevated blood lead levels. Those levels were 11 and 14 μg/dL. Based on these results, recent exposure of children in the area near the Gulf Coast Recycling facility appears to be limited. Based on the current information, this site poses an indeterminate public health hazard.

Recommendations/Public Health Action Plan

(1) HCHD and FDOH will follow-up with the parents of the children who had elevated blood lead levels. We will remind parents of follow-up appointments with their child's physician for blood lead retesting. FDOH will evaluate additional blood lead levels as that information becomes available.

(2) ATSDR will be available to provide air or wipe sampling for the households of the children who have elevated blood lead levels.

(3) FDOH will provide physician education to the doctors of the children who had elevated blood lead levels.

(4) Residents in the study area should avoid lead contaminated soils in the ditches and yards until GCR consultants remove these soils.

References

(1) Toxicological Profile for Lead. Draft dated February 17, 1998 . Agency for Toxic Substances and Disease Registry

(2) Center For Disease Control and Prevention, 1991. Preventing Lead Poisoning in Young Children. Atlanta, Georgia: US Department of Health and Human Services, Public Health Services, Public Health Service, Centers for Disease Control.

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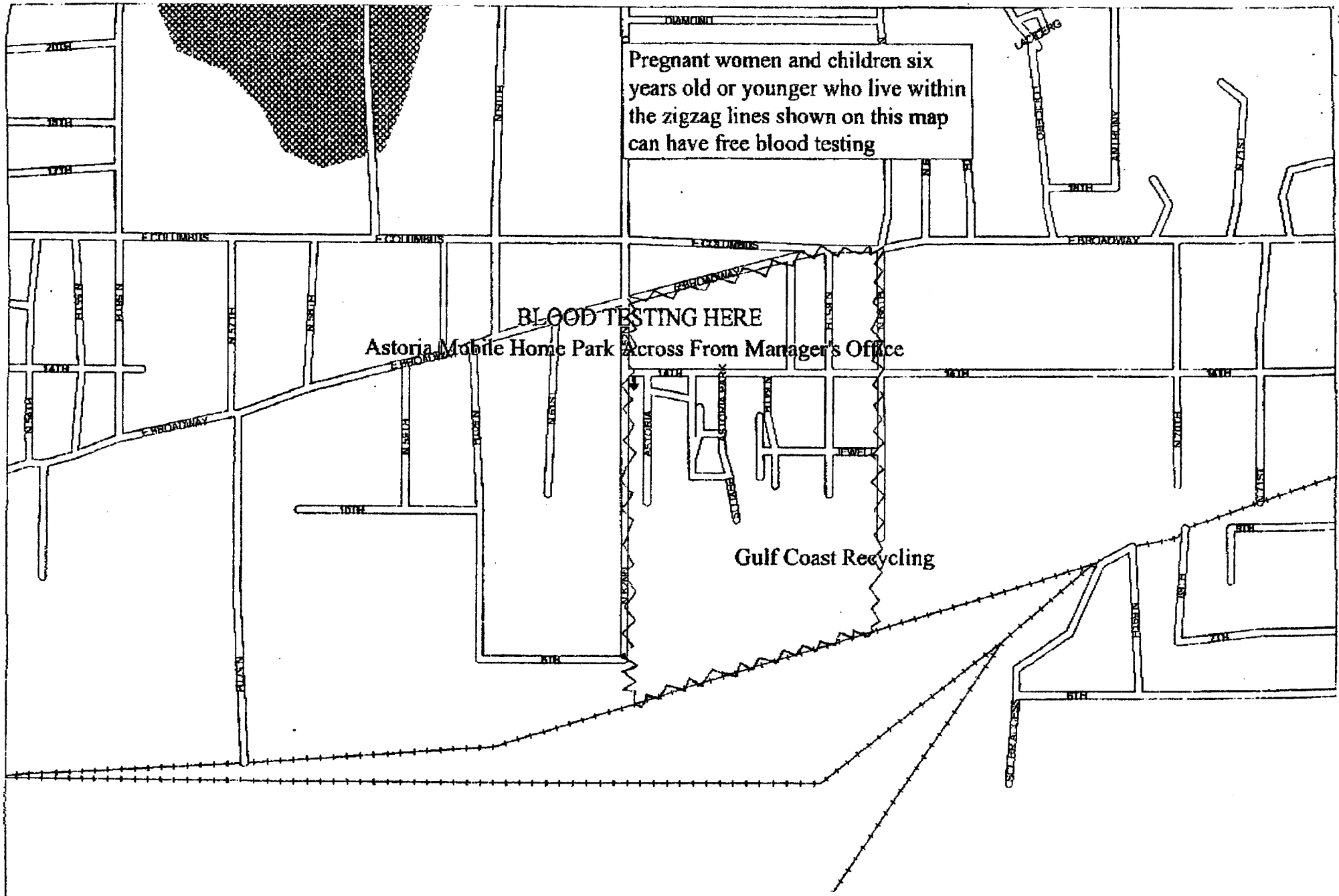

GULF COAST RECYCLING

ATTACHMENT 1

CERTIFICATION

The Gulf Coast Recycling Health Consultation was prepared by the Florida Department of Health, Bureau of Environmental Toxicology, under a cooperative agreement with the Agency for Toxic Substances and Disease Registry. It is in accordance with approved methodology and procedures existing at the time the health consultation was begun.

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The Division of Health Assessment and Consultation, ATSDR, has reviewed this health consultation, and concurs with its findings.

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