



Frequently Asked Questions

Number 2

April 2011

Results of Community Environmental Sampling and Soil Cleanup Levels: Collegeville, Harriman Park and Fairmont Neighborhoods.

Note: Please refer to EPA's Fact Sheet (Number 2) for a general overview.

TOP QUESTIONS

- **Where was the 2009 environmental sampling conducted?**
In July 2009, the soil-sampling event was conducted at 76 selected properties located in the communities of Fairmont, Collegeville, and Harriman Park. Additionally, 4 local North Birmingham schools had soil testing: the former Carver High School, the former Hudson School, Riggins Alternative School, and the Calloway Head Start School.
- **What are the chemicals of potential concern for the recent 2009 sampling investigation?**
The chemicals of potential concern in this investigation were Polycyclic Aromatic Hydrocarbons (PAHs), measured as Benzo(a)pyrene toxicity equivalents (BaP TEQ), and Arsenic.
- **What were the overall findings of the 2009 sampling investigation and 2010 re-sampling conducted by Walter Coke?**

School Properties

EPA determined that BaP TEQ was above soil screening levels at several sampling points at the Opportunity School at Riggins, former (now demolished) Hudson School and new Hudson School, and former Carver High School. EPA determined that arsenic was above the soil screening level at one sampling point at the former Carver High School and in the play area at the Former Hudson School. There was no exceedance of either chemical at the Calloway Head Start School. Laboratory results of the sampling investigation at the four schools were discussed both verbally (in April/May 2010) and in writing with the Birmingham City School District Superintendent and his staff (letter dated October 1, 2010). Coordination with the School District to address the findings is ongoing.

The Hudson school property was re-sampled in August 2010 because of the construction activity that had taken place there as part of the new Hudson School. Re-sampling indicated that contaminants were present in soils on the side of the school and in back of the school at levels requiring cleanup.

In March 2011, Walter Coke removed impacted soil from the front of the school and in the back of the school to a depth of two feet. Clean soil was placed in excavation and sod grass was planted over the soil.

In April 2011, Walter Coke is removing soils contaminated with PAHs around the Opportunity School at Riggins to a depth of two feet. Over 20,000 sq ft of soil will be removed.

Residential Properties

The overall findings of sampling of 76 properties (included 65 residential yards, Public Housing, rights-of-way, a church, drainage ditches, and off-site Walter Coke property) in Collegetown, Harriman Park and Fairmont neighborhoods are as follows:

Soil Sampling Results AT or ABOVE Screening Levels

Arsenic – 1 of 70 properties

BaP TEQ – 24 of 70 properties

Note that 191 samples were collected at these 70 properties. For each property, 1-6 composite samples of soil were collected. The number depended upon on the layout of the yards on each property (some houses had no backyard, etc). EPA noted a property was “at” or “above” if any sample from the property was at or above the screening level for Arsenic or BaP TEQ.

- **What are soil screening levels?**

The investigation compared detected concentrations of the 2 chemicals of potential concern in soil to screening levels. The soil screening levels are conservative risk-based values developed by EPA that are health-based. The levels used are those that may be associated with a 1 in 10,000 (1×10^{-4}) increased cancer risk over a lifetime. Based upon the sampling results compared to screening levels, and other factors, EPA will determine whether further investigation or cleanup is warranted. Being above a particular screening level indicates further evaluation may be necessary, but does not necessarily mean that any further action or cleanup is warranted.

- **What are soil cleanup levels?**

A cleanup level is a concentration of one or more chemicals in which a risk of cancer or non-cancer health effects will be reduced or eliminated once removed. Cleanup levels are based on risk based exposure calculations. EPA has chosen a cleanup level for BaP TEQ at a concentration of 1.5 mg/kg or a risk level of $1E-4$ or a 1:10,000 chance of developing a cancer. EPA has chosen a cleanup level for inorganic arsenic at 37.0 mg/kg with a hazard index of 1 or $1E-4$ to $1E-5$ risk range. Using these cleanup levels compared against the 2009 sampling results, EPA identified about 35% of properties at or above cleanup levels in the Collegetown, Harriman Park and Fairmont neighborhoods.

- **What are the potential health effects of the chemicals of potential concern from this investigation (Arsenic and BaP TEQs)?**

The Agency for Toxic Substances and Disease Registry (ATSDR) is EPA’s lead federal agency on public health issues. To help answer health questions, please contact Dana Robison with ATSDR at (770) 488-3744, or the ATSDR Hotline at 1 (888) 422-8737.

ATSDR has created Fact Sheets on frequently asked health questions on Arsenic and Polycyclic Aromatic Hydrocarbons (PAHs), related to the two chemicals of potential concern for which the soil was tested. To view information on the human health aspects of these chemicals, please refer to these 2-page Fact Sheets produced by ATSDR at the following

web-site pages:

Arsenic <http://www.atsdr.cdc.gov/tfacts2.pdf>

PAHs (BaP TEQ) <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=121&tid=25>

- **What are next steps?**

Short Term

On November 3-5, 2010 EPA held “one-on-one” private Information Sessions with the property owners or renters of the properties that were sampled to answer questions about their sampling results letters. At the Information Sessions other organizations were present such as: Agency for Toxic Substance and Disease Registry (ATSDR), Alabama Department of Environmental Management (ADEM), the Jefferson County Department of Health (JCDH) and Walter Coke.

At a public forum to be held on April 28, 2011, EPA will present the findings and planned next steps to the broader community.

Short-term plans include evaluating the need for additional sampling and potential cleanup. The public will be updated on any new developments.

Long-Term

Long-term plans include: 1) development of an overall environmental action plan with Walter Coke to address the chemicals of potential concern; 2) work with ATSDR on any public health related matters associated with the chemicals of potential concern; and 3) provide opportunities for the public to meaningfully engage in this process.

OTHER QUESTIONS

- **Which government agency was responsible for the oversight of the recent Community Environmental Sampling Event?**

The U.S. Environmental Protection Agency (EPA) is a federal agency whose mission is to protect human health and the environment. The Resource Conservation and Recovery Act (RCRA) authorizes EPA to require facilities to examine the nature and extent of their potential pollution that may endanger human health or the environment. Currently, the lead regulatory program on this sampling matter is the EPA’s RCRA Corrective Action program located in the Southeast Region 4 Office in Atlanta, Georgia.

- **Who is Walter Coke, Inc.?**

Walter Coke (formerly Sloss Industries) has been operating in this area since 1920, processing coal to produce coke for fuel use in blast furnaces and foundries in the steel industry. Sloss Industries (now Walter Coke) entered into a RCRA Section 3008(h) administrative order on consent with EPA in 1989 to assess potential contamination regulated by RCRA on and/or off-site from operation of the facility. Walter Coke is cooperating with EPA in the soil evaluation in the Fairmont, Collegeville, and Harriman Park communities.

- **Is Walter Coke the source of the chemicals found in the soil samples?**

EPA believes that Walter Coke is at least partially responsible for the chemicals of potential

concern found in the soil samples. EPA may never reach a final determination on all of the sources of the chemicals of potential concern found in the soil samples. This area of Birmingham has been the location of other industries that could also have contributed to the detected chemicals of potential concern. In addition, a number of non-industrial sources, such as car, railroad and airplane exhaust, residential application of pesticides or use of other household or yard products, or ashes from grilling or home heating could also have contributed to the detected chemicals of potential concern.

- **How was the soil sampling conducted?**

For each property, a composite soil sampling approach was used. The sampler took five individual samples from the selected property (e.g., front yard, back yard, garden), mixed the 5 samples together to form a composite sample for each yard, and then this composite sample was analyzed by a laboratory. In play areas and in vegetable gardens, separate soil samples were taken and not composited. EPA provided oversight during the sampling.

- **Why did it take until 2010 to release the 2009 sampling results?**

On June 26, 2009, at a picnic and barbeque hosted by Walter Coke and EPA, the residents were given an outline of the residential sampling plan. In July 2009, the sampling event began. The time-consuming steps that followed the 2009 sampling event included a lengthy technical and administrative process. This included: an in-depth laboratory analysis and validation of the data; a draft sampling report submitted to EPA by Walter Coke; a rigorous EPA review and comments to the sampling report; an EPA risk assessor evaluation; determination of a risk screening level, and meetings between Walter Coke and EPA to evaluate the initial sampling results and discuss potential next steps. This process, which is necessary to ensure accuracy of the information, has taken time.

- **Where can I find more information?**

As documents associated with this sampling become available on this EPA web-site, please refer to <http://www.epa.gov/region4/foiaps/readingroom/index.htm>.

The library-based information repository that has related materials to this sampling event may be viewed at the following location: *North Birmingham Regional Branch Library*; 2501 31st Ave North Birmingham, AL 35207 (205) 226-4025

For more information, please contact:

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