

City of Gainesville

Inter-Office Communication
Office of the City Manager
Mail Station 6
334-5010

TO: Hon. Mayor and Members of
The City Commission

DATE: January 12, 2004

FROM: Wayne Bowers
City Manager

SUBJECT: Revised Report on Dust from Koppers Property

On January 5, 2004, I sent to you a report prepared by Public Works Director Teresa Scott concerning dust from the Koppers property located on NW 23rd Avenue. After reviewing the report further, Teresa has made a revision to the second paragraph of her December 11, 2003 report. Attached is a revised report dated January, 9, 2004 that contains the revised paragraph 2 (in italic print).

In addition, one of the pages from the Alachua County Environmental Protection Department's report that was attached to December 11, 2003 memo was omitted. Although the pages were not numbered, the report has been provided to you again with the fourth page now included.

I received today a letter on this subject from John Mousa of the Alachua County Environmental Protection Department and Paul Myers of the Alachua County Health Department. A copy of this letter is also attached.

After you review the report, should you have any question, please contact me.

Respectfully submitted,



Wayne Bowers
City Manager

WB/rs
Attachments

cc: Teresa Scott
Stephen Boyes

01-13-04 02:47 RCVD

CITY OF GAINESVILLE

Inter-Office Communication

TO: Wayne Bowers
City Manager

DATE: January 9, 2004

FROM: Teresa Scott
Public Works Director

SUBJECT: Koppers

This memorandum is to clarify paragraph two of my December 11, 2003 memorandum regarding this matter.

Pursuant to your letter of October 23, 2003, Stewart Pearson and I met with Paul Myers, Alachua County Health Department (ACHD) and Dr. John Mousa, Alachua County Environmental Protection Department (ACEPD) to discuss potential environmental problems caused by dust coming from the current Koppers operation. Mr. Myers and Dr. Mousa were very helpful in providing information on previous testing that has been conducted related to this matter. Attached is a copy of a sampling report prepared by ACEPD dated August 2002 and a letter dated August 2002 from ACHD regarding their review of the sampling report. ACHD concluded that there was no evidence of a significant public health hazard on residential properties adjacent to the Koppers industrial site.

Neither agency has an air monitoring program. We did discuss the matter of whether air quality sampling needed to be conducted for determining if there is any offsite air impacts due adjacent to the Koppers industrial operation. ACEPD advised that if an air monitoring program was to be conducted, because of variable weather conditions the air monitors would need to be operated periodically over at least a several month period or longer, with multiple monitors located around the site, in order to obtain enough significant data to make conclusive interpretations.

The Florida Department of Environmental Protection (FDEP), under the Environmental Protection Agency's (EPA) Clean Air program has jurisdiction over air monitoring in Alachua County. I contacted FDEP about their possible assistance with air monitoring for arsenic as well as chromium, polynuclear aromatic compounds, phenolics, dioxin and furan since these are the pollutants that have been identified as potential concerns in the soils associated with Koppers. Ms. Tammy Eagan, Meteorologist with the FDEP Air Monitoring program responded (copy of the email is attached) that FDEP monitors for pollutants for which the US EPA has established standards. These include the following: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (10 microns or less in diameter (PM₁₀) and 2.5 microns or less in diameter (PM_{2.5}), and sulfur dioxide (SO₂). The pollutants I requested monitoring do not

have EPA established ambient standards. Ms. Eagan concluded that there is no monitoring assistance that FDEP can offer at this time.

If I can provide any further assistance in this matter please let me know.

Attachments

KOPPERS INDUSTRIES, INC. VICINITY SOIL SAMPLING REPORT

Alachua County Environmental Protection Department, August 2002

1.0 OBJECTIVE

The objective of the study was to obtain preliminary screening data on existing arsenic, chromium and copper concentrations in the surficial soils at the residential properties immediately adjacent to the Koppers Industries, Inc. (KII) located at 200 NW 23rd Avenue in Gainesville, Florida in order to evaluate the potential offsite impacts from KII operations.

2.0 BACKGROUND

The Cabot / Koppers Superfund Site located in Gainesville, Florida covers 170 acres bridging two properties. Cabot Carbon formerly operated on the eastern portion of the site making naval stores and charcoal from pine. KII owns and operates a CCA wood-treating operation on the western portion of the site. Historically, the facility has been used to preserve wood utility poles and timber by using three different chemical solutions: creosote, pentachlorophenol and chromated copper arsenate (CCA). Because of poor waste handling practices in the past the site is contaminated with arsenic, benzene, pentachlorophenol and other chemicals. Additionally, as part of their current operations, KII stores large quantities of CCA treated wood. Research conducted by Stilwell¹, Solo-Gabriele, Townsend, et. al.² and others has shown that CCA treated wood can leach arsenic to the ground resulting in arsenic concentrations in the soil above background levels.

As shown in Figure No. 1, KII is bordered on the north and west sides by residential properties. Over the past couple of years, the Alachua County Environmental Protection Department (ACEPD) has received complaints from the KII neighbors regarding dust coming from the KII property. In addition to the nuisance aspect of the dust, concerns were raised regarding the possibility of contaminants, specifically arsenic, causing an offsite impact via dust clouds generated from traffic and wind on the unpaved parts of the property.

Table 1.0 provides various soil environmental standards and other data for arsenic. This table is provided for perspective when considering the concentration data in the remainder of this report.

Table 1. Arsenic Guideline Concentrations

Standard-setting Organization	Arsenic Concentration	Comment
Florida Department of Environmental Protection (FDEP)	0.8 mg/kg	Residential Default Soil Clean-Up Target Level ³
FDEP	3.7 mg/kg	Industrial Default Soil Clean-Up Target Level ¹
Not Applicable	0.42 mg/kg Range 0.02 - 7.01 mg/kg	Average background level in Florida soils ⁴
Not Applicable	48.9 mg/kg Range 0.5 - 125.0	Average soil concentration found in Alachua County CCA wood playgrounds ⁵
Not Applicable	Range 0.04 - 704 mg/kg	Concentration in KII soils ⁶
Not Applicable	4.5 mg/kg	KII Soil Cleanup Goal ⁷
Not Applicable	0.73 mg/kg Range 0.22 - 10.7 mg/kg	Average concentration in Gainesville Urban Soils ⁸

¹ Stilwell, D.E., "Environmental Issues on the Use of CCA-treated Wood," The Connecticut Agricultural Experiment Station, Department of Analytical Chemistry, December 1998.

² Solo-Gabriele, H., Townsend, T., et. al., Alternative Chemicals and Improved Disposal-End Management Practices for CCA-treated Wood, Florida Center for Solid and Hazardous Waste Management, July 2000.

³ Florida Department of Environmental Regulation, Florida Administrative Code Chapter 62-777, Contaminant Target Clean-Up Levels.

⁴ Ma, L.Q., Harris, W., Hornsby, A., 1997. Background Concentrations of Trace Metals in Florida Surface Soils, Report #97-4. Florida Center for Solid and Hazardous Waste Management, Gainesville, FL.

⁵ Alachua County CCA Team, 2001. Chromated Copper Arsenate (CCA) Pressure Treated Wood Inventory and Management Practices in Alachua County.

⁶ TRC, 1999. Revised Supplemental Feasibility Study. Cabot Carbon / Koppers Superfund Site Gainesville, Florida.

⁷ EPA, 2001. Superfund Proposed Plan Fact Sheet. Cabot Carbon / Koppers Site. Record of Decision Amendment.

At least one soil sample was collected from each property. All samples were surficial (0-5 cm) single grab samples. All samples were collected from areas with little or no vegetation. QA/QC samples were collected in accordance to the current Florida Department of Environmental Protection (FDEP) Standard Operating Procedures for Laboratory Operations. A total of 4 field duplicates and 4 equipment blanks were collected and analyzed. All applicable information, including sample location, pictures taken and all relevant information collected from the background interview will be recorded in the field logbook.

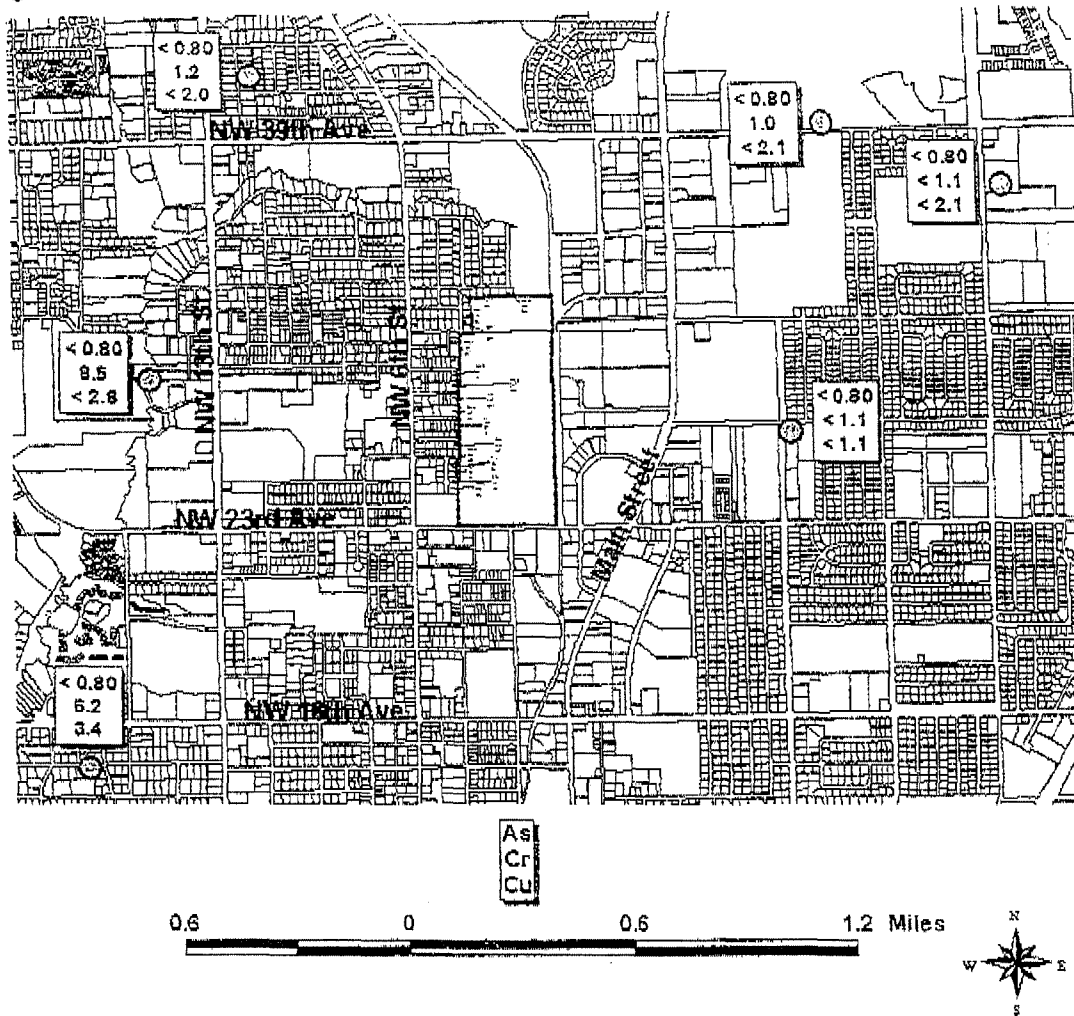
In addition to the residential samples, a total of 6 background samples were collected (Figure No. 2). Background sample locations were based on an exclusion criteria based on the one developed by Chirenje, Ma and Hornsby (2001). Background samples were not collected from:

1. An area within 1 m of a paved surface (concrete pavement or tarmac);
2. An area within 3 m of a CCA-treated wood pole, fence, deck or any other structure – if not sure assume all exterior wood structures are CCA-treated wood;
3. An area currently or formerly under a CCA-treated wood structure;
4. An area within 100 m of the perimeter of a gas station and obvious pathways for runoff;
5. An area within 200 m of the outer limits of the boundaries of an identified former cattle dip site and obvious pathway for runoff;
6. An area within 100 m of the boundaries of an identified "contaminated area";
7. An area within 500 m of the boundaries of an identified hazardous waste dumping or processing;
8. An area within 100 m of the boundaries of an identified waste treatment site;
9. An area within 100 m of an industrial area (operationally defined as an area where manufacturing or processing activities are taking place);
10. An area within 20 m of a major road as defined by the Florida Geographical Data Library;
11. An area that is a part of a runoff flow depression;
12. An area within 100 m of a golf course;
13. An area within 100 m of a power substation;
14. An area within 100 m of a current or former railroad corridor.

All background samples were surficial (0-5 cm) single grab samples. All samples were collected from areas with little or no vegetation. Samples were collected using the current Florida Department of Environmental Protection (FDEP) Standard Operating Procedures for Laboratory Operations and Sample Collection. All applicable information was recorded in the field logbook.

All soil and water equipment blanks samples were analyzed by Severen Trent Laboratories, Inc., Tallahassee, Florida using EPA method 6010 for Arsenic, Chromium and Copper.

Figure No. 2. Background Sampling Locations



4.0 FINDINGS AND CONCLUSIONS

Table 2 presents a summary of the sampling and analysis results. Key findings include the following:

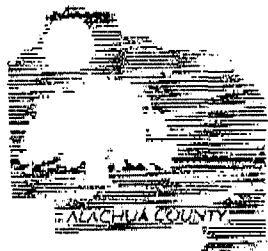
- All background samples had no detectable arsenic concentrations above method detection limits. Background samples also had very low or non-detectable levels of chromium and copper.
- Ten out of sixteen samples showed no detectable arsenic concentrations above method detection limits.
- Six out of sixteen samples showed detectable levels of arsenic ranging from 3.2 to 7.8 mg/Kg. These values were above the background sample concentrations.
- Samples with detectable levels of arsenic above background levels were all from properties near the central west to southwest boundary of the KII property.
- Chromium and copper were detected at low levels in all of the samples collected.

Based on the arsenic testing results, there does not appear to be a broad area-wide impact from KII operations. However the arsenic data from the samples collected from some of the properties near the central west and southwest boundary of the KII property does suggest a potential arsenic impact in these areas. With the limited amount of data collected in this study it is not possible to be definitive about the source of these potential impacts. The detected arsenic levels could be the result of contamination from past or current industrial operations or known contaminated soil sources at the KII site or from other sources. Due to the fact that arsenic was detected above area background sample concentrations in several of the samples and because

of the grouping of the properties with detectable levels of arsenic, ACEPD is requesting additional investigation by the United States Environmental Protection Agency and Beazer East, Inc to determine whether past industrial practices at the KII site may have contributed to the observed arsenic impacts. Additionally, ACEPD is requesting that KII investigate whether current plant practices and operations may also be contributing to observed arsenic impact.

Table 2. Soil Sampling Results

PARCEL #	ARSENIC (mg/kg)	CHROMIUM (mg/kg)	COPPER (mg/kg)
FDEP Residential SCTL	0.8	210	110
FDEP Commercial SCTL	3.7	420	76000
08253-010-007	<0.8	6.8	3.4
08253-010-007 (Duplicate)	<0.8	6.8	4.2
08253-010-010	3.2	14.0	17.0
08253-010-010 (Duplicate)	4.6	17.0	20.0
08253-010-012	<0.8	2.4	2.2
08387-000-000	<0.8	4.8	7.3
08394-000-000	<0.8	2.0	3.4
08396-000-000	<0.8	4.7	3.4
08396-000-000 (Duplicate)	<0.8	5.0	3.7
08397-000-000	<0.8	3.4	2.4
08432-000-000	3.9	10.0	12.0
08444-000-000	<0.8	5.7	9.9
08444-001-000 (Duplicate)	7.8	5.5	4.4
08460-000-000	<0.8	2.7	4.2
08460-000-000 (Duplicate)	<0.8	3.6	5.7
08462-000-000	<0.8	17.0	12.0
08469-000-000	<0.8	3.1	2.7
08476-000-000	5.9	4.0	2.5
08253-010-009	7.0	24.0	39.0
08253-0101-011	5.1	14.0	32.0
Background #1	<0.8	1.0	<2.1
Background #2	<0.8	<1.1	<1.1
Background #3	<0.8	1.2	<2.0
Background #4	<0.8	<1.1	<2.1
Background #5	<0.8	8.5	<2.8
Background #6	<0.8	6.2	3.4



ALACHUA COUNTY ENVIRONMENTAL PROTECTION DEPARTMENT

201 SE 2nd Avenue, Suite 201, Gainesville, Florida 32601

Tel: (352) 264-6800 Fax (352) 264-6852

Suncom: 651-6800

Home Page: <http://environment.alachua-county.org>

Board of County Commissioners

Chris Bird

Environmental Protection
Director

cbird@co.alachua.fl.us

Ramesh P. Buch

Land Conservation
Manager

rbuch@co.alachua.fl.us

Katherine A. Fanning

Natural Resources
Manager

kfanning@co.alachua.fl.us

John J. Mousa

Pollution Prevention
Manager

jmousa@co.alachua.fl.us

Debbie VanSicoten

Administrative Support
Manager

dvansicoten@co.alachua.fl.us

January 12, 2004

Mr. Wayne Bowers
City Manager
City of Gainesville
P.O. Box 490
Gainesville, FL 32602

Re: Air Monitoring in the Vicinity of the Koppers Plant

Dear Mr. Bowers:

The purpose of this letter is to provide to the City Commission a summary of the input provided by the Alachua County Environmental Protection Department (ACEPD) and the Alachua County Health Department (ACHD) to the City of Gainesville Public Works Department (GPW) concerning air monitoring in the vicinity of the Koppers facility on NW 23rd Ave. in the City of Gainesville. On October 23, 2003, Dr. John Mousa (ACEPD) and Mr. Paul Myers (ACHD), met with Ms. Teresa Scott and Mr. Stewart Pearson (GPW) to provide advice and assistance to GPW on air monitoring and health issues arising from dust concerns in the vicinity of the Koppers facility. Citizens had asked the City Commission to consider air monitoring and testing in the vicinity of the Koppers plant to determine the possible impacts on the neighboring community from arsenic and other potential chemicals which may be adsorbed on the dust particles.

ACHD indicated that based on the previous soil sampling conducted by ACEPD in the vicinity of the Koppers plant, there did not appear to be a significant public health hazard from arsenic on residential properties adjacent to the Koppers facility. ACHD further offered their resources in interpreting any data that may be generated by an air monitoring program.

ACEPD advised that monitoring for particulates (dust) and chemical analysis of the dust particles in the vicinity of the Koppers site was technically possible. ACEPD indicated that while it would be possible to measure the quantity of dust particles in the air, chemical analysis of the particles would be a more complex and costly process. ACEPD further indicated that, because of the variable wind and weather conditions at the site, air sampling would need to be performed periodically over a several month period or longer, and that multiple sampling stations would need to be established around the site in order to get enough statistically valid data to attempt to make definitive conclusions.

Sincerely,

John J. Mousa, Ph.D.

Pollution Prevention Manager

Alachua County Environmental Protection Department

Paul Myers, M.S.

Environmental Health Director

Alachua County Health Department

CC: Chris Bird, Tom Belcuore, Randall Reid, Teresa Scott

