



# Alachua County Environmental Protection Department

Chris Bird, Director

July 6, 2007

Mr. Scott Miller  
Remedial Project Manager  
US EPA Region 4  
61 Forsyth Street, SW  
Atlanta, GA 30303

Re: ACEPD Concerns about Dioxin and Benzo-a- Pyrene in Soil at Koppers Site

Dear Mr. Miller:

Alachua County Environmental Protection Department (ACEPD) has reviewed the chemical analysis data from the soil and sediment sampling performed by AMEC Earth & Environment, Inc. and reported in the "Data Summary Report –Results of Revised Supplemental Sampling Plan –Additional Data for Risk Assessment, Koppers Inc. Site (March 30, 2007)". The reported data indicates that the concentrations of dioxin (reported as TCDD toxic equivalents (TEQ)), and benzo-a-pyrene (reported as BAP toxic equivalents (TEQ)), in the near surface soil (top 3 inches) along the western and eastern boundaries of the Koppers site are significantly above the respective Florida Department of Environmental Protection (FDEP) Default Residential Direct Contact Soil Clean Target Level (SCTL) and the FDEP Industrial Default Direct Contact SCTLs. ACEPD is concerned that the elevated concentrations of these contaminants near the eastern, western and southern boundaries and in the on-site ditch sediments suggest the potential that offsite, adjoining residential and commercial properties may also be contaminated above FDEP SCTLs and pose increased human health and environmental risks. In light of these results, ACEPD strongly recommends that the following actions be taken in an expeditious manner: 1) confirmatory soil sampling should be performed with improved QA/QC for the high level dioxin (>200 ng/Kg) concentrations measured on site; 2) additional soil sampling and analysis for dioxin and benzo-a-pyrene TEQ should be conducted in the residential neighborhood offsite to the west of the Koppers site and on the commercial properties to the north, south and east of the Koppers site to better delineate the extent of contamination and determine the health risks for any offsite impacts; 3) offsite sampling in the drainage ditch discharge areas should be conducted to determine potential offsite impacts, and 4) the planned risk assessment for the site should also take into effect off-site impacts to residential and commercial properties. .

ACEPD's concern and recommendations are based on the following information from the data in the report:

1. Samples taken along the western boundary of the Koppers site show soil dioxin TEQ concentrations which range from 17.65 to 554 ng/Kg in the top 3" of soil. The FDEP Residential SCTL for dioxin is 7 ng/Kg and the FDEP Industrial SCTL is 30ng/Kg. The dioxin TEQ concentration in the boundary samples therefore ranges from 0.6 to 18.5

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times the FDEP Industrial SCTL and from 2.5 to 79 times the FDEP Residential SCTL. In addition, higher dioxin TEQ levels ranging up to 178 times the FDEP Residential SCTL and up to 42 times the FDEP Industrial SCTL were observed in top 3" soil samples taken from sampling locations 300 feet from the western boundary. Slightly higher dioxin concentrations were also observed at the Eastern boundary top 3" samples.

2. The AMEC report indicates that the reported higher (>200ng/Kg) dioxin TEQ concentrations may be underestimated by a factor of four due to interference problems in the laboratory. This statement implies that the true concentration of dioxin TEQ in some of the soil samples could be even higher than reported in the AMEC report. There appears to be some question about the validity of some of the dioxin analytical data reported which needs to be confirmed by re-sampling and reanalysis.
3. Benzo-a-pyrene TEQ concentrations in the samples from along the western boundary ranged from 160 ug/Kg to 4318 ug/Kg in the surface soil (top 3"). The FDEP Industrial SCTL is 700 ug/kg and the FDEP Residential SCTL is 100 ug/Kg. Therefore, the reported maximum boundary concentration is approximately 6 times the FDEP Industrial SCTL and 43 times the FDEP Residential SCTL. A similar range of concentration is observed in samples from the surface soil from locations 150 ft to east of the western boundary. In addition, elevated benzo-a-pyrene TEQ concentrations up to 25 times the FDEP Industrial SCTL are reported from samples from the eastern boundary of the site.
4. Sediment samples from the onsite ditch show elevated levels of dioxin TEQ and benzo-a-pyrene TEQ which are also observed at the property discharge points for the on-site ditch. This suggests that there may be offsite sediment impacts.

If you have any questions about ACEPD's recommendations please call me at 352-264-6805.



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