Florida Department of Environmental Protection

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Secretary

December 11, 2008

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

Dear Scott:

DEP has reviewed the October 2, 2008 Offsite Soil Sampling Plan prepared by AMEC Earth & Environmental and submitted by Beazer Inc for the Koppers portion of the Cabot Carbon/Koppers site. Review comments from the University of Florida to DEP are enclosed. DEP concurs with those comments with emphasis on the following:

1) Based on the distribution of onsite soil contamination and the uncertainty that migration is limited to areas west and north of the site, offsite sampling should include locations east and south of the site.
2) We recommend that initial offsite sampling also include sample locations closer to the site property boundary than 100' as proposed, to determine if default SCTLs are met immediately offsite. Consideration should be given to the distribution of contamination onsite, particularly at the property boundaries, in the selection of the immediate offsite locations.
3) If offsite sampling indicates exceedances of Chapter 62-777 SCTLs for unrestricted use, the offsite extent of contamination should be delineated to those criteria (or acceptable background concentrations if higher), regardless of current land use.
4) As per the DEP March 2008 "Guidance for Comparing Background and Site Chemical Concentrations in Soil", offsite sampling to determine representative background concentrations must be obtained in unaffected areas such that *natural background*, not anthropogenic background, is represented. Current statutes and rules in Florida do not recognize comparisons with anthropogenic background concentrations as a basis for determining that a chemical is not of concern for a site. Where anthropogenic background concentrations become important is in delineating the boundaries of contamination attributable to a release (site) and determining where liability for cleanup exists.

We appreciate consideration of these comments. I can be reached at 850-245-8969 if you have any questions.

Sincerely,

Kelsey A. Helton

Kelsey A. Helton
Bureau of Waste Cleanup

Enclosure

cc: Zoe Kulakowski, DEP
Ligia Mora-Applegate, DEP

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November 21, 2008

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Koppers Off-Site Soil Sampling Plan

Dear Ms. Mora-Applegate:

We have reviewed at your request the *Off-Site Soil Sampling Plan, Cabot Carbon/Koppers Superfund Site, Gainesville, Florida.* This document was prepared by AMEC Earth & Environmental and is dated October 2, 2008. The document includes an off-site sampling plan, Standard Operating Procedures, and a Health and Safety Plan. Off-site soil sampling is proposed 0-6 inches below ground surface (bgs) to the west and north of the facility. The soil will be tested for dioxins, polynuclear aromatic hydrocarbons, and arsenic. A background data set for the same depth interval will also be collected during this sampling event. We have the following comments regarding the sampling plan:

1. The sampling plan focuses on off-site soil along the northern and western site boundaries. Samples will be taken 100 feet from the site boundary at these locations.
    a. Unrestricted land use criteria (namely, default residential soil cleanup target levels, SCTLs) must be met immediately outside the site boundaries. Samples should be taken closer to the site boundary to evaluate whether this condition is met.
    b. Given the high concentrations of dioxin that exist on-site adjacent to the boundary in many locations, we think it is likely that concentrations of dioxin in soil above the residential SCTL of 7 ppt will be found off-site. In anticipation of this, it would be advisable to take additional off-site samples at varying distances from the boundary in these areas to begin delineation of off-site contaminated soil. This will likely require sampling on private property.
2. While it is reasonable to speculate that off-site migration might occur predominantly to the west or north, there is insufficient basis to rule out migration in other directions, in our opinion. For example, wind data from the Gainesville Municipal Airport used to anticipate the direction of dust migration through air may not adequately reflect wind currents at the site, which can be affected by surrounding buildings, trees, etc. Given the very high concentrations of contaminants such as dioxin in some parts of the site (such as the process area

in the southern portion of the site) and the short migration distances to escape the site boundaries, sampling data needs to be obtained for the entire perimeter. On the southern side of the site, this would include the elementary school immediately across the street.

3. The drainage ditch is a potentially important pathway for migration of contaminants off-site. Additional sampling downstream from the facility is needed.
4. The plan proposes to take several background soil samples. While the criteria for selection of background sample locations appear reasonable (with one exception noted), we are unable to determine from the maps whether all of the locations satisfy these criteria. One criterion could create some problems with interpretation – the exclusion of samples taken less than 0.25 m from a paved surface. A distance of 0.25 m is quite close, well within the influence of a paved surface to contribute PAHs to adjacent soil, for example. Background samples need to either be taken further away (e.g., 3 m) or flagged as representing conditions near a paved surface. If the latter approach is used, these samples would be relevant only for comparison with site [or off-site] data also taken from samples near a paved surface.
5. The sampling plan did not clearly describe how the background sampling data will be used. The sampling plan appears to be designed to establish anthropogenic [rather than natural] background conditions for the chemicals in question. There is no provision in Florida rules for using anthropogenic background information in identifying chemicals of concern for a site. Anthropogenic background information can be used, however, in delineating boundaries of contamination for which a party is responsible for cleanup.

Please let us know if you have any questions regarding this review.

Sincerely,

Stephen M. Roberts, Ph.D.

Leah D. Stuchal, Ph.D.