Alachua County
Environmental Protection Department

Chris Bird, *Director*

February 22, 2005

Ms. Amy Williams
Remedial Project Manager
Superfund Remedial and Technical Support Branch
Waste Management Division
EPA Region 4
61 Forsyth St., S.W.
Atlanta, GA 30303 – 8960

Re: ACEPD Comments – (1) Source Removal Assessment Report, TRC, January 2005; (2) Upper Hawthorn Group DNAPL Recovery Pilot Study Workplan, Key Environmental, December 2004; (3) Draft Remediation Grouting Work Plan, Cabot-Koppers Superfund Site, TRC, December 2004

Dear Ms Williams:

Attached are technical review comments from the Alachua County Environmental Protection Department (ACEPD) on the above referenced technical reports. If you have any questions about these comments you may contact me, John Mousa, or Robin Hallbourg or Gus Olmos at 264-6800.

Sincerely,

John J. Mousa, Ph.D.
Pollution Prevention Manager

CC: Mike Slenska, Beazer East, Inc.
Kelsy Helton, FDEP
Chris Bird (scan)
Gus Olmos (scan)
File Copy (1658 Green)
Brett Goodman, GRU
Paul Myers, ACHD
Robin Hallbourg (scan)
John Mousa (scan)

Attachment 1: ACEPD Comments – (1) Source Removal Assessment Report, TRC, January 2005; (2) Upper Hawthorn Group DNAPL Recovery Pilot Study Workplan, Key Environmental, December 2004; (3) Draft Remediation Grouting Work Plan, Cabot-Koppers Superfund Site, TRC, December 2004

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ACEPD Comments on Source Removal Assessment Report
Prepared by TRC, January 2005

Section 1.0 – The introduction (and text throughout the entire report) makes reference to "findings" and assumptions about the mobility or immobility of DNAPL in Hawthorn Group and the potential risk to the Murphree Wellfield from the groundwater contamination in the Floridan aquifer on site. ACEPD does not agree with these assumptions. There is reason to believe from the data that DNAPL on site is more mobile than assumed by Beazer and there is still considerable uncertainty in the modeling results such that the threat to the wellfield cannot be eliminated. In addition, ACEPD believes that protection of the Floridan and intermediate (Hawthorn Group) aquifers from further degradation is a primary issue of concern, independent of any potential threat to the Murphree Wellfield.

Section 2.2.1.8 – ACEPD disagrees with the statement that "there is a possibility that the observations are related to well installation" in referring to the organic constituents detected in the intermediate (Hawthorn Group) and Floridan aquifer wells. ACEPD is aware of only one well FW-6 where there was some concern about the well installation procedures possibly introducing contamination. There has been no indication in other wells on site that organic constituents detected were from well installation.

Section 2.2.1.9 – ACEPD disagrees with the "suggestions" about the possible source of arsenic contamination in the Floridan Aquifer wells being naturally occurring. The source of arsenic contamination has not been definitively determined and the assessment of arsenic data has not been completed. ACEPD believes that it is premature and misleading to "suggest" that the arsenic is naturally occurring without further testing and evaluation.

Section 2.2.2.1 – As stated previously, ACEPD believes it cannot be definitely concluded or stated that there is no mobile DNAPL in the surficial aquifer since DNAPL has accumulated in some surficial wells and has been recovered from PW-1.

Section 2.2.2.5 – ACEPD agrees that there are insufficient borings into the Hawthorn Group to adequately determine the magnitude and lateral extent of contamination the Hawthorn Group formations. ACEPD reiterates its request that further determination of the horizontal extent of the contamination in the intermediate aquifer (Upper and Lower Hawthorn Group formations) needs to be performed before any remedial alternatives are decided upon for this site.

Section 3.1.1 -- The volume of soil to be treated and or disposed of could be significantly less than assumed if the soil is tested to determine if hazardous constituents exceed criteria before it is treated or disposed of.

Section 3.1.1 -- Basis and Assumptions for Excavation --This section states that "The objective is to remove the identified DNAPL-impacted soils; not to achieve a target soil cleanup level based on the concentrations of a specific chemical." Also, **Section 3.2 .4 Soil Excavation**, states that "Verify attainment of design lines and grades by survey to confirm completion of excavation (i.e., the excavation is not guided by attainment of cleanup levels)." If the source removal assessments that are presented in this report were intended as an initial remedial measure, it seems unlikely that an approach the didn't involve achieving soil cleanup criteria would have ever been approved considering the extensive effort that would have been required to do an excavation in the first place. ACEPD disagrees with this assumption and recommends that any further assessment of source removal be based on the attainment of soil cleanup criteria.

Section 3.3.3 -- It is unclear why the excavation of the source areas would need to be lined in order to put back in the treated soil. Does this mean that the treated soil does not meet clean-up

standards? Please explain.

Section 4.1.2 -- General Comment— Has adequate characterization been performed on the type and concentration of contaminants that exist in the source areas especially from below the surface layers? This information is needed to make a better determination of the possible disposal and treatment options. Where is this characterization data?

Section 4.2.2 – General Comment – It would be helpful in the evaluation of the challenges that are specified in this section on meeting LDRs for disposal of listed wastes to hear from the USEPA as to whether they generally agree with assessment presented by TRC of this issues.

Section 4.2.3.2 – There is some doubt presented in this section on the effectiveness of thermal treatment to treat the expected constituents in the source area soils. ACEPD recommends that a "pilot program" to test the effectiveness of thermal treatment should be conducted as soon as possible. It would seem that this would have a higher priority than the chemical oxidation pilot that is being currently investigated. Without this pilot data it would be difficult to determine whether thermal treatment is or is not a viable technology.

Section 4.4.1.1- Excavation and Offsite Incineration —This section states that "For the present source removal only offsite incineration would be employed. Because of the rigorous RCRA Subtitle C hazardous waste permitting requirements for incinerators, offsite treatment at an existing RCRA permitted hazardous waste incinerator would be more feasible than using a mobile onsite incinerator." ACEPD recommends that the option of using a mobile onsite incinerator needs to be fully evaluated because it will reduce some of the transportation issues and potential problems outlined in **Section 5.1.3.2 Potential Transportation Risks**. More information from EPA or Beazer is needed as to what the actual difficulties will be in permitting an on-site mobile incinerator.

Section 4.4.2.1 -- The proposal to utilize an on-site landfill as a disposal method for excavated soils is an unacceptable option to ACEPD and probably to the local community. The creation of a hazardous waste landfill at the site in place of the underground contamination is not an acceptable solution.

Section 5.0 -- Risk, Feasibility, and Cost Implications of Source Removal -- Throughout this section, the report indicates that the source removal action "will not result in any risk-reduction associated with exposure to Site-related constituents." ACEPD disagrees with this approach and conclusion based on the following:

(1) Health based risk analysis should not be the only consideration for site cleanup or for the implementation of source removal as an IRM. Final site cleanup should also take into account removal or minimization of contamination in the Hawthorn Group and the Floridan aquifer under the site and should be based on the attainability of cleanup criteria for both soils and groundwater. ACEPD strongly disagrees with the use of risk analysis to justify the lack of remedial action at the site; and,
(2) The report emphasis the shortcomings of source removal as stand alone option for remediation of the contamination on the entire site; however, for the purposes of this report, source removal should be evaluated as an IRM which is only part of the final solution for the site. In developing a final remedy more consideration should be given to benefits of source removal when applied in conjunction with other remediation strategies as described in the 1999 RSFS.

Section 5.1.1.1 -- Surficial Zone Ground Water – The surficial aquifer is classified as Class G-II groundwater (Florida Administrative Code 62-520.410). In Alachua County the surficial aquifer is used for potable supply. It does not necessarily have "poor sanitary condition."

Section 5.1.1.2 -- Hawthorn Group Ground Water – The intermediate aquifer is used for potable supply in Gainesville. Historically, it was used extensively in the Fairbanks area, approximately 2.5 miles north of the Site. Therefore, ACEPD believes that groundwater migration in the intermediate aquifer (Hawthorn Group formations) is of the utmost importance.

Section 5.1.1.3 -- Floridan Aquifer Ground Water – One of the three private wells closest to the Site (Murphree-Leitner 3627 NW 6th Street) is likely completed in the intermediate aquifer (Hawthorn Group), not the Floridan aquifer system. Many private wells in Gainesville, which are typically constructed open hole, are "short cased" and open to both the intermediate (Hawthorn Group formations) and the Floridan aquifers.

Section 5.1.1.4 – The statement that "…, dioxin concentrations in soils fall well below the preliminary remediation goal established by EPA for dioxins and furans in industrial soils" appears to be incorrect. Site data from the 1999 RSFS report indicates that dioxin concentrations as 2,3,7,8 – TCDD equivalents in surface soils range from 3.1 to 21.4 ug/Kg in the various source areas. The EPA proposed clean-up standard as indicated in the 2001 ROD is indicated as 1 ug/Kg for dioxin. Please explain.

Section 5.1.2.2 – ACEPD disagrees that source removal will not reduce the risk of contamination for the intermediate (Hawthorn Group) and Floridan aquifers. Source removal will eliminate a potential long term continuing source of contamination to the Hawthorn Group formations and Floridan aquifer. It must be assumed that a final remedy at this site will not just include or consider source removal from the surficial aquifer but will also include some action to reduce or remove contamination in the Hawthorn Group. If this is so, then the effectiveness of reducing contamination in the Hawthorn Group can be negatively impacted by not removing or eliminating the threat of continued downward migration of more DNAPL.

Section 5.1.2.3.1 – ACEPD does not agree at this time that it is "infeasible" to remove DNAPL impacted soils from the Hawthorn. The assumptions and discussions in Section 5.2.2 about excavation and shoring need further evaluation and discussion.

Section 7.1 -- ACEPD disagrees that all the source removal options identified in the report are "infeasible". Some of them may be difficult or expensive but they are not infeasible. Additional consideration of alternatives and a more thorough review of the data and assumptions needs to be conducted by EPA and all parties, in order to determine the feasibility of the source removal options.

Section 7.2 – This report is incomplete since it did not consider or discuss on-site incineration as an option if not for an interim measure than surely as part of a final remedial solution.

Section 7.5 --- ACEPD disagrees with the conclusion the "there is no technical or practical basis for implementing source removal options" at the site. ACEPD remains concerned that the analyses in this report have tended to paint the worst case scenarios for source removal and some option have not been fully considered.

ACEPD Comments on Upper Hawthorn Group DNAPL Recovery Pilot Study Work Plan Prepared by Key Environmental Incorporated, December 2004

Section 2.1 -- Sources of DNAPL – ACEPD does not agree with the statement that "No mobile DNAPL has been indicated below the Upper Hawthorn Group." DNAPL was reportedly found in well HG-10D during and subsequent to well development.

Section 3.1 -- Task 1 - DNAPL Recovery Well Design and Operational Modeling/Optimization – Contaminated (untreated), "coproduced' groundwater must not be discharged to the surficial aquifer or recirculated in the intermediate aquifer (Hawthorn Group formations). The "coproduced" groundwater must be treated on-site and discharged to the municipal wastewater system, or treated (to drinking water standard levels) prior to use for recirculation in the Hawthorn Group. ACEPD does not recommend discharge of recirculation water (treated or untreated) to the surficial aquifer.

Explain the purpose and justification for the two proposed monitoring wells.

Section 3.3 Task 3 - DNAPL Recovery Well Operation – ACEPD recommends monitoring water levels in all intermediate aquifer (Hawthorn Group) wells in proximity, including those completed in the Lower Hawthorn, during DNAPL recovery.

No discussion of how the DNAPL will be removed from the recovery well was provided.

ACEPD Comments on Draft Remediation Grouting Workplan Koppers Facility Prepared by TRC, December 2004

Section 3.4.6 Grouting Program - The proposal for the on-site disposal of the excess soilcrete is an unacceptable option to ACEPD. Beazer needs to consider other management options for this material.

Section 4.1 Performance Evaluation and Reporting - What methods are proposed to test the long term performance of the grout? Will the continued contact with the DNAPL have an adverse impact on the grout?