



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4

ATLANTA FEDERAL CENTER  
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December 7, 2006

Michael Slenska, P.E.  
Environmental Manager  
Beazer East, Inc.  
C/O Three Rivers Management, Inc.  
One Oxford Centre, Suite 3000  
Pittsburgh, PA 15219-6401

**SUBJECT:** Five Year Review Recommendation #9 - Redevelopment/Sampling of Surficial Aquifer Monitoring Wells, Cabot/Koppers Superfund Site, Gainesville, Florida

Dear Mr. Slenska:

The United States Environmental Protection Agency (EPA) has reviewed Beazer's October 20, 2006, letter written in response to recommendation #9 in EPA's Second Five-Year Review Report for the Cabot/Koppers Site (U.S. Army Corps of Engineers, April 4, 2006). Specifically, Beazer's letter presents a proposal for redevelopment and sampling of surficial aquifer monitoring wells at the Cabot/Koppers Superfund Site in Gainesville, Florida.

Recommendation #9 in Table 13 of the Five-Year Review Report states:

All of the surficial wells installed in the 1984 to 1995 investigations should be cleaned out and redeveloped.  
Re-surveying of the wells should be performed as necessary.  
Regular monitoring of all the wells and sample analysis for all site Contaminants of Concern (COCs) should be performed.

In the letter Beazer proposes to monitor a select group of the surficial aquifer wells on the Koppers property, and states that wells on the Cabot Carbon portion of the site "would likely be addressed by Cabot Carbon." Beazer does not indicate which constituents would be monitored in their sampling of surficial wells, and furthermore, Beazer states in their letter proposal that this re-sampling would be a one-time event, with additional, future monitoring being conducted as a part of evaluation of an improved surficial aquifer extraction well system. Beazer's rationale for not sampling all of the monitoring wells on the Koppers property is that some of those wells are completed in source areas and thus, "are not representative of the dissolved-phase plume for the Surficial Aquifer and are likely impacted by residual NAPL droplets and sheens in the well." Beazer also states that certain surficial wells on the Koppers property are in close proximity to one another and in such cases, sampling both wells would provide redundant information.

EPA's comments on Beazer's proposal are as follows:

1. Beazer does not intend to sample any wells on the Cabot Carbon property, asserting that those wells are Cabot Carbon's responsibility. However, it is believed probable, if not confirmed by monitoring on the Cabot Carbon portion of the Site and by ground-water modeling analysis, that inadequate capture of Koppers-derived surficial aquifer contamination has resulted in some of that contamination migrating past the line of extraction wells on the eastern Koppers boundary. For such contamination, it becomes Beazer's responsibility to evaluate the nature and extent of such contamination. EPA intends to consider such contamination in terms of possible modifications to remedial strategies to address surficial aquifer contamination derived from the Koppers part of the Site. Thus, EPA requests that Koppers monitor certain wells on the Cabot Carbon portion of the Site where it is anticipated that Koppers-derived contamination will be most significant or may be present. Referencing Figure 1 in the Beazer letter proposal, these wells include ESE-001, ITW-19 or ITW-20, ITW-12, ITW-8 or ITW-9, ITW-6 or ITW-7, and ITW-3. The choice of which of the wells in close proximity to monitor (e.g. ITW-19 or ITW-20) should be made on the basis of known vertical distribution of contamination, other prior monitoring data, well accessibility, and other factors. If the apparently paired wells monitor different vertical intervals within the surficial aquifer, then both wells need to be monitored. Thus, ITW-19 and ITW-20 would be considered more or less redundant monitoring wells (reference Table 1 in Beazer's letter report), while ITW-6 and ITW-7 would not be considered redundant.
2. For wells on the Koppers property within or close to contaminant source areas or suspected principal source areas, EPA requests that the wells be redeveloped and monitored. Any observations of free product in those wells (determined from pre-redevelopment investigations or observed during actual sample collection) should be noted. Such observations will be a consideration in the evaluation of analytical data (EPA acknowledges that the presence of NAPL in a sample makes a dissolved-phase concentration of at least organic contaminants suspect or invalid). EPA considers this source-area sampling to be important for the following reasons:
  - It will provide additional information on the location and volume of DNAPL in the surficial aquifer;
  - Redeveloped source area wells may become a part of a remedial strategy to address DNAPL in the surficial aquifer; and
  - Arsenic or other metals contamination in the surficial aquifer needs to be characterized in source areas, to support EPA's total Site remedial strategy.
3. Beazer's proposal does not include any list of proposed monitoring constituents. Consistent with the Second Five-Year Review, monitoring for all site COCs is needed. Anything less than full COC sampling will not meet EPA's objectives and is unacceptable.
4. EPA will evaluate data obtained as a part of this sampling, and then consider the scope of future monitoring of the surficial aquifer that is Beazer's responsibility. Such future monitoring will not necessarily be specifically directed toward monitoring the progress of a Koppers surficial aquifer remedial action system designed to pump and treat ground water. For instance, certain surficial aquifer wells may be monitored as a part of evaluations that address source area remedial actions that are not directly related to the extraction well system.

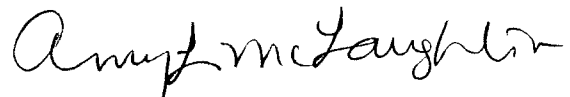
5. EPA acknowledges that surficial aquifer wells in close proximity to one another and that monitor overlapping vertical intervals likely provide more or less redundant information. However, wells that are in close proximity and monitor different vertical intervals may provide useful information on the vertical distribution of contaminants. In this regard certain wells that Beazer proposes for no sampling need to be sampled, unless there are clear post-remedial data that demonstrate the redundancy of a well compared to the nearby well screened at a different interval. For example, referring to Table 1, wells MW-16A and MW-16B are not to be considered redundant and must therefore both be sampled unless there are data obtained after the implementation of the surficial aquifer remedial action that demonstrate near-equivalency of contaminant concentrations in samples from these two wells (e.g. consistently  $\pm 10\%$  difference maximum in concentrations of all contaminants between the two wells).

6. The following comment was received from Gainesville Regional Utilities: Beazer's October 30, 2006, response to Recommendation #9 - Redevelopment/Sampling of Surficial Aquifer Wells appears to focus on creosote constituents only. That conclusion is based on the proposal to exclude sampling wells located near source areas because "Monitor wells completed in the former source areas are not representative of the dissolved-phase plume for the Surficial Aquifer and are likely impacted by residual NAPL droplets and sheens in the well". In addition to creosote constituents, the dissolved arsenic plume should also be a major focus if the well redevelopment and sampling plan. Therefore, to provide data within the central portion of the Superfund site, and at two or more potential sources of arsenic contamination where data are currently lacking, it is recommended that (at a minimum) the following Surficial Aquifer wells (as presented on Figure 1 of the October 30, 2006, Beazer letter) should be added to the list of wells to be redeveloped and sampled:

- Well at the north end of the Former North Lagoon;
- Wells at the north and south ends of the Former South Lagoon;
- One well at the north end and one well at the south end of the Former Drip Track;
- One of the wells between the south end of the Former South Lagoon and well M-26; and
- Three wells within or adjacent to the Process Area: (1) one well at the southern boundary, (2) one well in the central-portion of the source area, and (3) one well near the northwest boundary.

Thank you for your efforts spent on this project. EPA requests that Beazer revise the proposal for surficial well redevelopment and sampling, to incorporate EPA's comments, by December 22, 2006, and proceed with surficial well sampling in early January 2007.

Sincerely,



Amy L. McLaughlin  
Remedial Project Manager