

Beazer

BEAZER EAST, INC. C/O THREE RIVERS MANAGEMENT, INC.
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August 19, 2009

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

Re: Transmittal of a Revised "Evaluation of Potential On-Site Human Health Risks Associated with Soils and Sediments at the Koppers, Inc. Wood-Treating Facility in Gainesville, Florida" and Response to Preliminary U.S. EPA Comments on the January 29, 2009 "Evaluation of Potential On-Site Human Health Risks Associated with Soils and Sediments - Koppers, Inc. Wood-Treating Facility, Gainesville, Florida."

Dear Mr. Miller:

Enclosed please find a revised "Evaluation of Potential On-Site Human Health Risks Associated with Soils and Sediments at the Koppers, Inc. Wood-Treating Facility in Gainesville, Florida" dated August 19, 2009 (referred to as the "HHRA" in the remainder of this letter). The revised HHRA incorporates responses to the U.S. EPA's preliminary comments dated July 6, 2009. The remainder of this letter responds to those comments. In most cases the responses indicate how the January 29, 2009 was revised to address U.S. EPA's comments. In some cases, the HHRA did not need to be revised in response to a comment and the letter explains why a revision was not made.

Response to U.S. EPA comments dated July 6 2009.

1. Cancer Slope Factor (CSF) for Dioxin. Since the EPA toxicity assessment for dioxin is still under review, we requested review by EPA OSWER/ORD of the alternative slope factor proposed for the Koppers HHRA. OSWER recommends that in the interim, that only the HEAST cancer slope factor continue to be used (HEAST 1997). EPA notes that the proposal for an alternate cancer slope factor is based on work by Maruyama. OSWER/ORD review of the Maruyama paper indicates that the authors do not appear to be following EPA cancer guidelines in selecting data to model. Maruyama based the slope factor only on the hepatic adenomas in the NTP study, not the combined tumor incidence or even the carcinomas, both giving a higher risk. In addition, the Maruyama PBPK model has not been evaluated by EPA, so EPA cannot support it at this time. In conclusion, EPA cannot support the proposal for a dioxin cancer slope factor that is an alternate to the HEAST slope factor or the California EPA value. Please update the Risk Assessment (RA) and MEE model (MEE) inputs with the HEAST slope factor and re-submit the RA and MEE outputs

to reflect this change. A discussion of possible alternative slope factors for dioxin can be included in the uncertainty section, but should not be in the body of the report (deterministic and MEE).

RESPONSE. *Beazer continues to believe the dioxin CSF distribution used in the MEE analysis in the January 29, 2009 draft of the HHRA is scientifically defensible and appropriate and preferred to the HEAST CSF. However, in response to U.S. EPA's comment, both the deterministic risk assessment and the MEE analysis presented in the body of report employ the upper bound CSF from HEAST. The Uncertainty Assessment (Section 6 of the HHRA) contains a discussion of the effect of using alternative dioxin CSFs on potential risks estimated by the deterministic risk assessment and the MEE analysis.*

2. *Discussion of homeless trespasser (Section 3.2).* To increase the confidence in the conservative nature of the HHRA, text should added that even if a homeless trespasser were to infrequently visit the site now or in the future, his/her exposure would be less than that of the teenage trespasser assessed herein.

RESPONSE. *Additional text supporting the conservative nature of the trespasser evaluation was added to the end of Section 3.2.*

3. *Soil Ingestion Rate (Section 3.5.1).* The Risk Assessment document uses a maximum soil ingestion rate of 50 mg/day based on a study by Dr. Calabrese from 2003. While the uncertainty in the soil ingestion rate value is recognized, EPA Superfund currently recommends the use of 100 mg/day as the upper bound (deterministic RA) and/or maximum (MEE) soil ingestion rate for an outdoor worker at the Koppers - Gainesville Site. The RA and MEE inputs should be updated to utilize an upper bound and maximum soil ingestion rate of 100 mg/day consistent with EPA guidance on this topic (EPA 2002).

RESPONSE. *Beazer continues to believe that a soil ingestion rate of 100 mg/day overstates potential soil ingestion. However, the changes in soil ingestion rate requested by the comment have been incorporated in the HHRA.*

4. *Body Weight (Section 3.5.4).* It seems unlikely that a restrictive covenant limiting the sex of on-site Koppers workers or future commercial/industrial workers would be adopted or enforceable if it were *adopted*. The current scenario should assess the current worker population for the Koppers facility, using the body weight average by gender as appropriate. For the future site worker scenario, however, the RA should consider both male and female body weights in assessing possible site risks.

RESPONSE. *Based upon information provided by KI and the Plant Manager, the current scenario and the reasonably foreseeable future scenario assume that KI workers, who are actively engaged in treating wood, are males. Thus, as the comment allows, the HHRA assumes that KI workers under the current and reasonably foreseeable future use are*

males. For the hypothetical future use scenario, which assumes that the future use of the Site is for something other than wood-treating (discussed in Section 6 of the HHRA), a combined body weight of males and females is used.

5. *Fraction of intake term (Section 3.5.9).* Use of an FI term less than 1 for a worker must be accounted for by determining where the remaining incidental contact is coming from. Presumably on each workday, a site worker would be getting their total daily exposure from somewhere on the site; if, for example, 25% comes from the SWWA, the remaining 75% must be from another part of the site. For the trespasser in the current scenario, the FI term can be retained; for the future scenario, however, the FI should be increased based on the assumption that access will not be as restricted. (EPA 2000).

RESPONSE. *In response to earlier comments from stakeholders, the HHRA evaluated several subareas. According to the Plant Manager, work activity is concentrated in certain subareas while activity is infrequent in other subareas. The FIs were developed in response to this site-specific information. It is our understanding, for example, that a process worker spends most of his time in the process area and does not spend much time in the other subareas. Beazer agrees only a fraction of the total exposure of a worker contacting the less active areas (i.e., SWWA, NWGA, NEGA) will come from those less active areas. Indeed, overall exposure is likely to be dominated by potential exposures from the active area where the worker spends most of his time. The HHRA could incorporate the potential exposure from the areas of the Site where a worker spends most of his time and combine that exposure with the relatively small exposure from either the SWWA, NWGA or NEGA, but then the SWWA, NWGA and NEGA potential exposures and risks would be very similar to the potential exposures and risks associated with the area in which the worker spends most of his time and would mask the exposure from the less active areas. In order to not mask potential risks associated with less frequently visited areas of the Site, the potential risks presented in the HHRA are specific to each area. The text of the HHRA describes how potential risks would change if total exposure from all areas of the Site was summed (see for example, footnote on Figure ES-2, and Figures 6B, D and G, and discussion in Section 5.1.3.1, among other locations within the revised HHRA).*

As requested by the comment, the FI term for the teenage trespasser in the hypothetical future use scenario has been changed to 1.0 in the revised HHRA (see Table 15b).

6. *Respirable Particulate Concentration (Section 3.5.11).* The RA utilizes ambient monitoring data for analysis of possible effects to on-site Koppers workers. We understand that Koppers conducts specific air monitoring testing of workers on an annual basis pursuant to its contractual obligations to Beazer East. The RA should be updated to include data obtained on a Koppers-worker basis as opposed to ambient particulate monitoring data which does not likely realistically describe actual exposures of on-Site Koppers workers to Site soils.

RESPONSE. *Contrary to this comment, KI does not have a contractual obligation with*

Beazer East to conduct annual monitoring of KI workers. We have been informed by KI that on a voluntary basis, and consistent with industrial hygiene best practice, every three to four years KI collects breathing zone samples on workers. Sampling is conducted for Particulate Not Otherwise Regulated (PNOR) and analyzed for total particulate in addition to air sampling for metals associated with the use of Chromated Copper Arsenate for pressure treatment of wood. Thus KI does not have Site-specific PM₁₀ data that can be employed in the HHRA.

U.S. EPA's comment implies that the ambient particulate monitoring is unlikely to represent realistic exposures of KI workers. Based upon air dispersion modeling conducted by AMEC, the predicted maximum annual average on-Site PM₁₀ concentration is 33.6 µg/m³ under a worse-case scenario (high silt content and no dust suppression). This predicted PM₁₀ concentration falls between the 90th and 95th percentiles of the distribution of measured values used in the HHRA. Thus, the ambient dust monitoring data used in the HHRA appear to represent a conservative estimate of potential on-Site dust exposures of KI workers. In the absence of Site-specific PM₁₀ data, no revisions were made to the assumptions used in the revised HHRA to estimate potential inhalation risks.

7. *Relative Absorption Factors (Section 3.5.12).* RAFs can be used to account for differences in matrix or vehicle effects. RAFs should not be used however, on the basis of physiological differences between humans and the test animal; these differences are already accounted for in the derivation of the toxicity value since these are human toxicity values.

RESPONSE. The goal of the RAFs used in the HHRA is to account for matrix and inter-route effects. Thus, no revisions to the HHRA were required in response to this comment.

8. *Potential Risks from Lead (Section 5.1.1).* The text "...potential exposure to lead in on-Site soils are assumed to result in no risk of harm" is not quite accurate, and should be revised to read: "...potential exposure to lead in on-Site soils results in estimated risks that are acceptable to EPA."

RESPONSE. The requested change has been made in the revised HHRA.

9. *6.0 Uncertainty Assessment (Section 6).* Some discussion of the newly published RAGS Part F should be included here. Since this HHRA was underway when Part F was finalized, we are not requiring its use; however, the potential effects of its omission (little or none since inhalation is not a quantitatively significant exposure route) should be briefly discussed.

RESPONSE. Discussion of the newly published RAGS Part F has not been included in the uncertainty section of the revised HHRA. As stated in the comment, the impact of the guidance is expected to be limited because inhalation is not a significant exposure pathway at this Site. In any case, even if inhalation were to be an important pathway at the Site, the primary pathway would be through inhalation of dust. The methods employed in the HHRA and those described in the RAGS Part F guidance are not likely to lead to substantially different results for the dust inhalation pathway.

10. Recent Soil/Sediment Interim Remedial Measures. Recent soil/sediment interim remedial actions would most likely have a positive effect (reduction) in contaminant levels in Site soils and sediments in the DD, SWWA, and the EAA areas. The soil solidification/stabilization in the South Lagoon along with DD excavation would serve to change Site soil/sediment baseline exposures. Beazer may want to consider updating the RA to take into account these efforts if sampling data is readily available that demonstrates this reduction in risk.

RESPONSE. *Beazer evaluated the benefits of updating the EPCs used in the HHRA to account for the solidification/stabilization in the South Lagoon but determined the affected area was small enough that the change in EPCs under baseline conditions would likely be too small to substantially change estimated potential risks. Therefore, no revisions were made to the HHRA in response to this comment.*

11. Additional Soil Sampling in the Northern Inactive Area. We understand that AMEC on behalf of Beazer has obtained several soil samples in Northern Inactive Area. We look forward to receiving those sampling results to better inform possible soil risk to future users in the NIA. We expect that these soil sampling results will require that the RA and the MEE will be updated to include soil sampling results usage.

RESPONSE. *Beazer has provided U.S. EPA with preliminary results of the sampling referred to in the comment and is still waiting for formal validation of those results. When formal validation is received, Beazer will provide the final results to U.S. EPA and then discuss whether there is any need for additional sampling in the Northern Currently Inactive Area with U.S. EPA. (Note that since receipt of the preliminary sampling results, Beazer has determined that wood-treating-related activity may have sporadically occurred in what has, up to now, been referred to as the “Northern Inactive Area.” Given that determination, moving forward Beazer proposes to refer to that area as the “Northern Currently Inactive Area” or NCIA.) Once additional data are collected from the NCIA, assuming such data collection will be needed, potential exposures and risks can be estimated using the deterministic risk assessment and MEE model (as described in Section 6.3.1 of the revised HHRA).*

12. KI Worker versus default commercial/industrial worker. We concur with FDEP, Alachua County EPD, and the City of Gainesville's comment that default commercial/industrial worker exposure assumptions/job tenure be used for a future worker exposure scenario in place of KI worker Site-specific exposure assumptions/job tenure since there is a high probability of Site reuse in the event that the Koppers facility ceases operation in the future. The KI worker Site-specific exposure assumptions can be retained for the current worker scenario.

RESPONSE. *A non-KI worker future scenario is included in the revised HHRA. The KI worker evaluation is referred to as the “Current Use and Reasonably Foreseeable Future Use” scenario. The evaluation of a future worker characterized by default U.S. EPA*

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worker assumptions is referred to as the “Hypothetical Future Use” scenario. Potential risks associated with the latter scenario are presented and discussed in the Uncertainty Assessment (Section 6.3.1).

If you would like to discuss these comments and Beazer’s responses in more detail or require additional information, please call me or Paul Anderson at AMEC.

Sincerely,

A handwritten signature in black ink, appearing to read "Mitchell D. Brouman". The signature is written in a cursive style with a large initial 'M'.

Mitchell D. Brouman, P.G.
Environmental Manager

Enclosure

cc: Linda Paul (KI)
Paul Anderson (AMEC)
Greg Council (HSI Geotrans)