

From: Thomas.Brett@epamail.epa.gov
To: [John Mousa](mailto:John.Mousa)
Cc: Miller.Scott@epamail.epa.gov
Subject: RE: Clarification for Cabot/Koppers ROD errors
Date: Wednesday, February 09, 2011 10:33:07 AM

If the dioxins and PAHs are not really co-located, then you are correct that the wood tar removal may not get the dioxins in the sediments to the remedial goal, or may not even appreciably address the dioxin contamination. The main purpose of this removal is to get the wood tar residues out of the creek as much as possible, before they move around again and require more effort to locate. As you are aware (because you at ACEPD did the work), most of the spatial characterization that is guiding the removal effort currently underway by Cabot is based on the physical/visual characterization of the presence of the wood tar. The chemical analysis-based characterization of the creek, as I remember, was not extensive, unless I am misremembering the information I have seen. It is anticipated that the followup sampling to determine residual chemical residues in the sediments, whether it is part of the confirmatory sampling or a separate effort, will provide a better idea of what contaminants are still present and where they are. Cabot has stated that they will not consider themselves "finished" with the creeks after this remedial effort, but they wanted to get the wood tar out sooner rather than later, given the spatial delineation information currently available and the desire to not have the residues spread out further into the creek system. We had asked about a confirmatory sampling plan, but I haven't seen a plan for that, that I am aware of. Both Cabot and Koppers/Beazer will need at some point to outline a plan to further characterize the creeks regarding residual PAHs and dioxins. I am not sure when this is to happen, but it is expected that the remedial efforts in the creek going on now will change things, so that the planning for the further characterization will happen "after the sediments settle", I would guess. Scott may know more about when a sampling plan could be expected, but I think the removal action going on now is what has everyone's attention and should be a major step in the right direction. But, though this is a major step, it isn't viewed as a last step.

Brett

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From: John Mousa <jjm@alachuacounty.us>
To: Brett Thomas/R4/USEPA/US@EPA, Scott Miller/R4/USEPA/US@EPA
Date: 02/09/2011 09:55 AM

Subject: RE: Clarification for Cabot/Koppers ROD errors

Thomas,

Thank you for the clarification. I do want to bring to your attention though on the issue of the dioxins in the creek sediments that based on our limited sampling, the highest dioxin levels did not always correlate with the location of the highest PAH or tar residues. In fact the highest dioxin results were in the upper stretches of Springstead creek where there were no tar residues found. So it seems that the remedial approach should address the issue of dioxins in different way or at least recognize the difference in the locations. Removal of the areas where the PAHs exceed the PEC may not solve the dioxin issue as far as areas not exceeding 2.5 ng/Kg or background.

John Mousa

-----Original Message-----

From: Thomas.Brett@epamail.epa.gov [<mailto:Thomas.Brett@epamail.epa.gov>]

Sent: Wednesday, February 09, 2011 9:01 AM

To: Miller.Scott@epamail.epa.gov; John Mousa

Subject: Clarification for Cabot/Koppers ROD errors

Scott, per our discussion this morning I'll reply to you as well as John. John, you are correct, regrettably there are some errors in the ROD document, and we appreciate you pointing them out. I'll only address the offsite creek sediment issues here. The intent for the offsite creek sediments is to have the sediments containing total PAHs above 22.8 mg/kg removed from the creek, using the PEC as a not-to-exceed concentration in the sediment. This is the Probable Effects Concentration given in the Florida Inland Waters technical report recommendations for PAH screening values for sediments. There are values given for individual PAHs in this document, but we had suggested using the total PAH PEC of 22.8 mg total PAH/kg sediment as the active cleanup goal, and then allow natural attenuation (as part of an MNR effort) to try to get the sediments to an average total PAH concentration at the TEC (Threshold Effects Concentration) of 1.61 mg/kg total PAHs, or to background, whichever was larger. The total PAHs number is rough, as differences in the specific PAHs making up this total can cause differences in observed toxicity. But we proposed this as an alternative to site specific benchmark development, which Cabot and/or Beazer did not seem inclined to do at this point.

As for dioxin, the result of discussions here was that the EPA Region 4 ecological screening number of 2.5 ng dioxin/kg sediment - or the creek background dioxin concentration, whichever is larger - would be used as the cleanup goal. This is, as for the PAHs, in lieu of the development of a site-specific remedial goal for dioxins in the creek sediments. It did not appear that the dioxin concentrations had been thoroughly characterized enough to allow a targeted effort toward sediment removal for dioxins specifically. As I remember, the belief was that the dioxins and PAHs would hopefully be co-located, so that removal of the PAH-contaminated sediments would remove the bulk of any elevated dioxin

contaminated sediment. It was then believed that as part of the confirmation sampling effort and MNR monitoring effort (if MNR is deemed necessary), that dioxins could be included in that monitoring and it could be identified if further remedial action for dioxins in the creek was warranted.

Please let us know if there are further questions, and again sorry for the errors. Thanks.

Brett

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From: Scott Miller/R4/USEPA/US

To: Brett Thomas/R4/USEPA/US@EPA

Date: 02/07/2011 03:29 PM

Subject: Fw: Question and Clarification on On-Site Non Consolidated Area Soils and Creek Sediment ROD Remedies

Brett,
Good afternoon, can you please answer the questions that John Mousa has posed below related to our PEC/TEC remedy and return the answers to me. I'll answer the full e-mail and send you a response.

Thanks,
Scott Miller
Remedial Project Manager
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----- Forwarded by Scott Miller/R4/USEPA/US on 02/07/2011 03:26 PM -----

From: John Mousa <jjm@alachuacounty.us>

To: Scott Miller/R4/USEPA/US@EPA

Cc: "Murry, Fredrick J." <murryfj@cityofgainesville.org>,
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Date: 02/07/2011 09:13 AM

Subject: Question and Clarification on On-Site Non Consolidated
Area Soils and Creek Sediment ROD Remedies

Scott,

In reviewing the ROD, I have some questions about two issues:

1) It appears that the selected remedy for the on-site soils outside of the consolidation area consists of removal of soils and hot spots in vadose zones including surficial soils that have concentrations of COCs above FDEP default leachability criteria and then covering with 2 feet of "clean" soil. If this is correct, it is not clear what criteria will be used for the "clean" soil cover. Will this "clean" soil meet the FDEP residential direct contact SCTL concentrations? In several sections of the text and in the responsiveness summary USEPA indicates that the surface soils will "in effect meet FDEP default residential clean up standards has been selected" so I am assuming that the above assumption is correct.

2) If default FDEP leachability SCTLs are to be met for the vadose zone soils prior to the addition of the "clean" soil cover, this appears to conflict with other statements in the ROD which appear to state that USEPA will meet the most stringent of the direct contact or leachability standards in the vadose zone soils. I refer you to the following sections:

1. In Section 7.1.5 Clean-up Goals--- 3rd paragraph in section states;

" Table 7 and Table8 include the both the numeric direct contact and default leachability SCTL criteria. The more stringent of the two criteria apply to the vadose zone soils."

2. On page 118 of Appendix A: Responsiveness Summary- In Response to the following FDEP Comment- DEP recommends that the AROD identify both the numeric direct contact and default leachability SCTL criteria and state that the more stringent of the two criteria will apply to the vadose zone soils.

EPA gave the following response: " EPA agrees with this approach and will include it in the ROD".

Can you explain this issue please and how these statements apply to the onsite soils outside the consolidation area.

3) In the remedy for the creek sediments, the ROD in the Declaration Summary and on Page 19 indicates that sediments containing concentrations above the Probable Effects Concentrations would be excavated and then MNA would be used to see when the concentrations would reach the lower Threshold Effect Concentration level. But in Section 7.15 Clean-up goals, it is stated that FDEP default leachability standards would be used for offsite sediments in the Creeks. And in the Table 8 the only compound listed with a goal is Pentachlorophenol. This seems inconsistent to me. Pentachlorophenol was not found at all in the sediments so I don't know why it was selected on the table. And also if we are using TEC and PECs as goals for sediments in the creeks, then why are they not listed in table for all the PAH compounds that are present in the creek sediment. And doesn't dioxin have an ecological effect concentration? Can you explain why there is a difference here and why pentachlorophenol was selected? Please provide clarification if you will as to what the clean-up goals are for the creek sediments? The FDEP TEC and PEC values to be used?

Also concerning the creek sediments, there was dioxin found in stretches of Springstead Creek above FDEP Residential SCTL at about 40 ppt in one spot. Will this level of dioxin be addressed in the creek remedy? These creeks are privately owned by neighboring residents. While FDEP did develop an alternate clean-up criteria for the creek sediments for dioxin based on the limited exposure in the creeks and that the level of dioxin found in the creek was below this alternate criteria, they nevertheless indicated that these criteria could not be enforced in the creek because the creek is privately owned by adjacent residential properties. They therefore indicated that FDEP Residential criteria for Dioxin should be met in the creeks.

Thanks for providing this clarification. We are trying to make sure we understand what EPA has selected.

John Mousa