**Mary Rose Cassa - Hookston Station Plume Feasibility Study Comments**

**From:** Colleen Goya <cbgoya@astound.net>
**To:** <mcassa@waterboards.ca.gov>
**Date:** 8/6/2006 5:49 PM
**Subject:** Hookston Station Plume Feasibility Study Comments

**Hookston Station Plume Feasibility Study Comments**

I have reviewed the published feasibility study, attended the Colony Park/Water Board Working Group meeting, and read the yellow data sheet that invites public comment on the FS.

My impression of the FS remedial alternatives and the analysis of those alternatives is:

<!--[if !supportLists]-->• <!--[endif]-->The alternatives involve selection of different technologies or combinations of technologies aimed at remedying the contaminated zones A and B. These alternatives are evaluated based on the 9 criteria established as standards for such situations. The evaluations and the criteria, however, *seem to be missing a discussion of how adaptable the various alternatives are as remedial solutions.*

<!--[if !supportLists]-->• <!--[endif]-->How flexible and adaptable is each alternative, especially the recommended alternative #4? Is it adaptable to potential changes in the plume size and location? The FS seems to assume a static size and location that is not affected over time. What if monitoring results show poor progress in expected levels of remediation? Is there a fallback plan and are there contingencies for changing remediation methods or technologies if needed?

<!--[if !supportLists]-->• <!--[endif]-->I am concerned about other source of plume contamination coming from mixed sources mentioned in the FS. Will Alternative #4 be complicated by those additional contamination sources—does this remedy preclude any other approaches to address the other contaminants?

<!--[if !supportLists]-->• <!--[endif]-->I would like to see the FS directly address the adaptability of the remedial alternatives, perhaps as part of the criteria of "implementability."

<!--[if !supportLists]-->• <!--[endif]-->The proposed timeframe for the next phases through the start of actual remediation work feels discouragingly long. Is there any way to speed this process up?

Other Comments

I very much appreciate the email updates, the fact sheet, and the working group meetings—they have been of high quality, and they have helped enormously to bridge the communication gap between the Water Board and the community. Thank you!

Colleen Goya

To: San Francisco Regional Water Quality Regional Control Board
From: Lucy Goodell, Chair Colony Park Neighbors Association
Subject: Comment on Hookston Station Feasibility Study
Date: August 29, 2006

- We would like the plan to include specific benchmarks in time (1 year after implementation?) to determine whether or not sufficient degradation is occurring under our homes to meet the three to four year expected decrease in vapor intrusion to acceptable levels.

- We would like to know how adaptable the selected alternative is. If the plan comes up short of expectations within the benchmark time period can course corrections be made to get the remediation back on track?

- There was no consideration of an alternative combining in situ treatment with pump and treat.

- Primary concern to our neighborhood is contamination already in the ground water below our homes. Concern for this matter was reflected at the meeting at Fair Oaks School where several people suggested remediation within the neighborhood in addition to the permeable reactive barrier. We don't see how the permeable barrier can be really effective in the hot spots beyond stopping the plume from spreading and getting worse. The concept of meaningful natural degradation and attenuation of TCE has not occurred in the last 13 years on the plume. Can we realistically expect this as a means of degrading the TCE in the hot spots under the houses just by virtue of stemming the additional flow from upgradient?

- To what extent has the Water Board or ERM had prior experience with the use of iron? It is an expensive project to see if it works when we know pump and treat does work and is more effective.

- We request that the Permeable Reactive Barrier be constructed in a way that allows the iron mixture to be replenished if needed.

- Guidelines state that air sampling should be conservative. We believe that 12-hour indoor air sampling yields more conservative results than 24-hour sampling. A longer sampling period increases the likelihood of diluting the results due to doors and windows being opened. Some assumptions about indoor air testing are based on different conditions on the East Coast compared to California. Vapor intrusion on the East Coast may be worst in the winter months. In that season 24-hour sampling might be reasonable due to significantly colder temperatures that discourage leaving doors and windows open. Indoor air sampling programs should consider and be developed with local atmospheric conditions in mind. Land use should also be considered. Residential indoor air monitoring should have a consevative approach. The risk factors of TCE are currently being re evaluated; there are differences of opinion. A conservative approach should be taken if only for this reason. Findings indicate that winter is not the worst period for vapor intrusion in California. We would want the houses to be kept closed as much as possible during the sampling in order to capture maximum risk and that can be managed better during a 12-hour period.

VIA FACSIMILE & U. S. MAIL

August 30, 2006

Mary Rose Cassa
California Regional Water Quality Control Board
San Francisco Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

RE: Feasibility Study Comments
Hookston Station Site

Dear Ms. Cassa:

The following questions/comments are based on my preliminary review of the scope of Alternative 4 (the proposed alternative) described in the FS for the Hookston Station project:

1) Will there be a contingency plan in the event that groundwater goes around the PRB instead of through it? If groundwater goes around the PRB to the west, then contaminated groundwater will be more directly up gradient of the MDUSD school property.

2) The planned location for PRB is in the vicinity of the highest detected concentrations of chlorinated compounds in soil vapor. Will air be monitored during the installation of the PRB? Will there be a plan to stop or adjust the scope of work if air quality is adversely impacted during installation of the PRB? Can this work be scheduled to occur when school is not in session?

3) Will air be monitored in the area surrounding the residences when SVE is used to prevent contaminated vapors from entering houses? And/or, will the vapors be treated before they are discharged to the atmosphere?

We look forward to your response.

Sincerely,

Richard Nicoll
Assistant Superintendent

**From:** amy brownell <amy@phch.org>
**To:** mary rose cassa <mcassa@waterboards.ca.gov>
**Date:** 8/31/2006 10:15:21 PM
**Subject:** Comments on Feasibility Study for Hookston Station

Hi Mary Rose:
Below are a few more comments on the Hookston Station Feasibility Study dated July 10, 2006. These are mostly a repeat of what I have already submitted with maybe a few nuances. Please feel free to consolidate the similar comments into one comment (I don't need double answers).

1) The timeframe that is projected for reduction of the portion of the plume downgradient from the PRB seems like an agressive schedule. Unfortunately, the homeowners who have been impacted by this plume have been potentially (depending on the configuration of their home, crawl space etc) exposed to unacceptable levels of vapors for a long time. So any possibility to speed up the cleanup under the impacted homes should be considered. To this end, an active treatment, such as injection of the ZVI slurry at appropriately spaced intervals starting from the outer edges of the downgradient plume and going inward would be well worth the expense. I would suggest a pilot test to see whether it is feasible and workable to inject the solutions into the A Zone underneath the neighborhood.

2) Please make sure all costs associated with Institutional Controls and particularly the cost of a county ordinances or county requirements for tracking the Soil Management Plan for the arsenic soils are included in the cost estimates. The RPs should be paying all the costs of the Institutional Controls, they shouldn't be passed on to any governmental agency. If there will be costs associated with the Institutional Controls that will have to be passed on to future property owners/developers then the RPs should develop, write and assist governmental agencies in implementing permitting or other schemes that will set up programs to reimburse the county or cities or whatever governmental agencies will have to implement the systems that track the Institutional Controls.

3) Please make sure there are sufficient monitoring wells around the PRB to verify that you are getting appropriate capture and treatment of the core of the plume.

4) Make sure the monitoring schedule to prove the effectiveness of the treatment is very aggressive at the beginning of the cleanup implementation, especially if you do not add any extra treatment downgradient of the PRB. Once the treatment is proven effective, then monitoring could be reduced.

thanks for all your hard work. the neighborhood is very lucky that you were assigned to this project.
talk to you soon,
Amy Brownell, P.E.