

Robert Pearce: The Koppers cleanup

By Robert Pearce Special to The Sun

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The contamination issues associated with the Koppers Superfund Site are very complex. They include the deep-soil groundwater threat, the widespread surface soils contamination, the contaminated stormwater runoff into Springstead Creek, and the contamination of off-site surface soils from fugitive dust.

The final feasibility study of alternatives for cleanup of the site was released by EPA in May. Selecting the appropriate remedy is not simple. It becomes doubly complex when taking future land-use issues into consideration.

The EPA's first responsibility is to protect human health and the environment, and its first objective for the Koppers site is to develop a cost-effective remedial plan to address those concerns. Another responsibility, however, is to provide a remedial plan that corresponds with plausible future land uses and community buy-in.

It appears that EPA's preferred remedy will likely be to "isolate and contain" the contaminants on site, in contrast to removing them. The essence of that plan would include:

1. Scraping the top layer of surface soils into a mound on top of the 30-acre primary source contaminant area, constructing a subsurface wall around it, and covering the mound with a low-permeability membrane.
- 2: Treating the deeper, heaviest contamination under the mound in situ (in place) using injection/extraction methodologies.
- 3: Covering the remaining 60 acres with an isolation membrane topped with several feet of clean dirt.

Here's the rub. The "isolate and contain" remedy would probably be sufficient and appropriate if the site was in an isolated location, but it is not. It is located within the developed area of the city 1.5 miles from downtown and is immediately adjacent to residential neighborhoods. It is also located close enough to the Murphree Well Field to be of very significant concern.

The plan has several major deficiencies. It does not actually "clean up" the contaminants, and therefore fails to resolve the important psychological need to have as much of the contamination as possible removed from the site and away from where people are living.

Covering something up does not remove it. The simple presence of high concentrations of such toxins, even if they are confined or isolated, adversely impacts financial investment in the adjacent neighborhoods and properties, and the viability of future on-site uses.

In addition, it may be a serious mistake to rely solely upon in situ injection/extraction methodologies to address the most severe contamination below the surface. And the plan is primarily intended to accommodate commercial and industrial types of future uses and does not provide sufficient flexibility for other potentially desirable redevelopment scenarios, whether now or in the future.



Most reasonable people will agree that it is not feasible to try to remove all of the contaminated surface soils and all of the deeper contamination associated with the four primary source areas (each of which is larger than a football field).

Most people understand that the entire site cannot feasibly be cleaned up to residential cleanup target levels to allow for unrestricted residential use.

Access to the four primary source areas will need to be retained indefinitely to accommodate in situ remediation and for possible future mandatory deep excavation. There may be unknown "hot spots" outside the primary source areas, and it will never be safe to sink a well on the site for drinking water.

And there are significant risks associated with excavating down too deeply to remove all the contaminants; a process that would involve digging through multiple clay layers that are currently helping to shield the underground Floridan Aquifer, our drinking water supply.

A more acceptable plan, in my opinion, that actually cleans up the site, should include:

1. Removing as much of the surface soil as necessary to achieve residential soil cleanup target levels over as much of the site as feasible.
2. Excavating and removing the most highly concentrated contamination on the site directly beneath the four primary source areas down to the surficial aquifer (top clay layer).

Yes, it would be more expensive and more difficult to implement than the cover-up scenario, but it would permanently remove a great majority of the contaminants from the site and provide significantly more flexibility for compatible site reuse.

The current situation is the result of gross environmental irresponsibility over a period of almost 100 years by a multibillion-dollar international conglomerate with little regard for consequences. I just can't help but think that we deserve something better than the "cover up" solution that appears to be what we will be seeing in the EPA's Final Proposed Plan soon to be released.

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