

Analysis of New York's Record of Decision for 2350 Fifth Avenue

Lenny Siegel

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In early April 2011, New York State's Department of Environmental Conservation (DEC) issued a Record of Decision (ROD) for the site at 2350 Fifth Avenue, in densely populated Harlem (Manhattan). Signed on March 29, the ROD selects a remedy for the building, which has been an ice cream factory, industrial dry cleaner, school, and now a self-storage facility. This is the site I addressed in a March 18, 2011 letter to DEC co-signed by Vernice Miller-Travis and a late March field visit report (see <http://www.cpeo.org/pubs/2350Fifth.pdf>), published on CPEO's website.

DEC has decided to implement its proposed remedy with one significant difference. It will conduct additional soil-vapor sampling near the corner of Chisum and West 141st Street, where a high level of tetrachloroethylene (PCE) was found in the soil gas. It will require extensive remediation of the 2350 Fifth Avenue building itself, but it has chosen an alternative that will *not* permit unrestricted use. It has also concluded again that vapor intrusion is not a problem at the Harlem Armory site, directly to the north of the site.



Location of 1200 $\mu\text{g}/\text{m}^3$ PCE Concentration in Soil Gas

DEC responded to our comments about high soil-gas levels:

It is not believed that this anomalous soil vapor concentration at SG-28 [at the corner of Chisum and 141st] is related to the site contamination because it is located hydraulically upgradient from the source, and may be related to an unknown upgradient source. However, during the remedial design phase, the Department will require the collection of additional soil vapor samples in the vicinity of SG-28 to better define the source of the elevated levels of PCE at this location. Following review of the results of the additional soil vapor sampling, **NYSDOH will determine whether sub-slab and indoor air sampling is needed in the residential buildings. [Emphasis added.]**

I haven't seen enough groundwater data to justify the conclusion that the contamination is *not* from the site. In general, groundwater plume delineation requires more samples when vapor intrusion is a concern. However, given the existence of "rogue" plumes (unidentified and from unknown sources) throughout New York City, it is possible that this contamination is from another local source. The promise to consider a vapor intrusion investigation in the residential structures is significant, but residents and others will need to ride herd over the effort, give the historically slow progress at this and other sites in the City. This should have been done years ago, and it's not clear when—"during the remedial design phase"—additional sampling will take place.

On site, DEC has selected a remedy that includes insulation removal, *in situ* chemical oxidation, *in situ* bioremediation, soil vapor extraction, petroleum recovery, and subslab depressurization, coupled with a Site Management Plan that incorporates institutional controls. On the whole, the plan makes sense, but the Department rejected a remedy that would have sought to restore the building for unrestricted use. It once again found that achieving that goal would be technically impracticable and that additional removal would have marginal benefit, be more disruptive, and double the cost. Despite the multiple actions designed to remove or treat the PCE from the building, soil, and groundwater, it's hard to see how this building could ever safely become a school again.

DEC dismisses indoor air contamination in the Armory as typical background levels, but it says that it will be conducting continuing soil gas monitoring in the area. It says that the New York State Department of Health is re-evaluating its PCE standard, as promised for 2010, but it doesn't know when that review will be completed! Furthermore, while downplaying the impact of potential exposures, it says that the standard is not a "bright line." As we wrote, the levels in the Armory are of marginal concern under standards used elsewhere, but given the high levels of PCE in adjacent soil gas I believe it's premature to write off vapor mitigation in the Armory.

In summary, for now DEC seems to be addressing my most important concern by promising to investigate the highest soil gas reading at the Savoy Park Apartments, but I continue to believe that the on-site remedy and response at the Armory could be more protective of human health.