



Adding Vapor Intrusion to the USEPA Superfund Hazard Ranking System

By Dana Patterson, Toxics Coordinator, Edison Wetlands Association

Thank you for giving me the opportunity to testify to the United States Environmental Protection Agency (USEPA) regarding the addition of a vapor intrusion component to the Hazard Ranking System (HRS) for Superfund. My name is Dana Patterson and I am the Toxics Coordinator for the environmental nonprofit Edison Wetlands Association, an organization that has worked for the last 21 years to cleanup toxic wastes sites and protect human health and the environment in New Jersey and beyond.

I personally have been involved in community advisory role on the Pompton Lakes DuPont Works site located in Pompton Lakes, New Jersey for the last 2.5 years. Here residents have been suffering from trichloroethylene (TCE) contaminated groundwater for many years and breathing toxic vapors rising through their basements into their homes. The Pompton Lakes DuPont Works site is a top-priority co-lead site by USEPA and the New Jersey Department of Environmental Protection.

For background, this site has been evaluated by the Agency for Toxic Substances and Disease Registry (ATSDR) and the New Jersey Department of Human and Health Services (NJDOHSS) for cancer risk. Their 2009 assessment showed a high number of kidney cancers and non-Hodgkin's Lymphoma in the residents living in the contaminated plume area adjacent to the former manufacturing plant. In addition to this site-specific report, trichloroethylene – the main cause of vapor intrusion in Pompton Lakes – may cause impaired heart failure, nerve, kidney and liver damage, unconsciousness, fetal development in pregnant women and even death.

As of right now, there are 450 homes that sit atop the toxic TCE plume, only one third of which have installed vapor mitigation systems. Families continue to breathe in these harmful vapors because there is a lack of trust between the community and the polluter, a mistrust caused by decades of devastating illnesses feared to be potentially caused by the site contaminants. This has caused the residents to hesitate to allow the polluter's consultants in their house to install mitigation systems, exacerbating the issue of vapors entering the homes. Only recently was this dire situation resolved.

Those are the cold facts of Pompton Lakes, but they don't begin to describe what is really at stake here. I see the real-life impacts of this on a more personal level every time I meet with the families of Pompton Lakes: I see the mothers who are inconsolable because their children are dying all too young. I see the daughters losing a parent in agonizing painful battles with a host of cancers. I see people who speak out at public meetings; and wonder why they can get no real help, only a pass-the-buck mentality that deflects all real decisions and accountability, and life-and-death issues are lost in the bureaucratic labyrinth of confusion. I am not saying that those state and federal health officials don't care, or don't want to do the right thing, but rather their hands are tied until the USEPA includes vapor intrusion within the Superfund ranking system.

Working with the two grassroots not-for-profit community groups – the Citizens for a Clean Pompton Lakes (CCPL) and Pompton Lakes Residents for Environmental Integrity (PLREI) – I have listened to the communities concerns and seen first-hand the issues, lack of regulations, lack of enforcement, and urgency for vapor intrusion to be added as a criteria for listing a contaminated site on the Superfund National Priorities List. I also was selected to serve on the monthly USEPA Pompton Lakes Environmental Community Advisory Group (CAG) and the ATSDR Health CAG. If vapor intrusion were previously included in the HRS, Pompton Lakes DuPont Works Site would absolutely rank high above the minimum for Superfund listing, and the dynamic between the community would be different. Under USEPA's complete leadership:

- The residents would not be burdened by the polluter's attempt to slow the cleanup.
- The polluter would not have the opportunity to request less oversight and monitoring through the State's Permit-By-Rule program
- The community would have an increased amount of public comment opportunities
- The USEPA could order the responsible party to cleanup the site that is the most protective of human health and if they refuse to do it USEPA's way, USEPA could perform the work themselves and bill the RP for treble damages, or three times the cost
- Ability for USEPA to develop more precise, robust screening values for TCE and PCE in shallow groundwater

All of these mentioned above are critical at sites that are blighted by vapor intrusion, especially since USEPA is developing new guidelines and regulations for vapor intrusion, such as the recent historic decision for the residents ability to use third party contractor sub-slab sampling and installation of mitigation systems. In addition, inclusion of major vapor intrusion sites will make it easier to move beyond mere mitigation, such as sub-slab depressurization, a temporary Band-Aid measure. In the Superfund program, sites like Pompton Lakes will be subject to strategies for permanent remediation of the soil and groundwater, which is the source of the toxic vapors.

Pompton Lakes is just one of over 800 USEPA-led sites around the country, not to mention probably thousands of state-led sites in the United States that suffer from vapor intrusion and contaminated groundwater. In fact, the USEPA Region II Center in Edison, New Jersey is a victim of vapor intrusion, and currently has vapor mitigation systems on several of its buildings, sitting on top of a plume of contaminated groundwater that emanated from the former U.S. Army's Raritan Arsenal. Evidence is clearly emerging throughout the entire country that proves vapor intrusion from large volatile organic compound plumes is a completed pathway of exposure where families are suffering include Endicott, New York; Camp Lejeune, North Carolina; and Hopewell Junction, New York.

The recognition of vapor intrusion as a full migration pathway is long overdue, and it is time that USEPA use their full suite of response tools including Superfund Removal and Remedial Action to deal with the severity of these sites. With the amount of data that already shows the impact that vapor intrusion has destroyed homes and hundreds of thousands of children and adults that have been exposure to toxic gases, where in some cases have been linked to cancer clusters, it is absolutely necessary for USEPA to include this criteria in the Superfund Hazardous Ranking System. I know my generation is counting on you to do the right thing. Please don't let us – and all Americans – down.