

Union Pacific Railroad Site Update

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The Union Pacific Railroad (UPRR) site, formerly known as Houston Wood Preserving Works, has contaminated the Fifth Ward and Kashmere Gardens communities for decades.

- Railroad ties dipped in a mixture called “**creosote-extender**”, containing various toxic compounds that came from Superfund sites.
 - Creosote emits harmful fumes and leaches into the surrounding soil.
 - EPA has determined that creosote is a **probable human carcinogen**.

- Due to unsafe disposal practices by the now-defunct wood treatment facility at the site, creosote has entered the community via an underground plume.
- The plume extends under **110 properties adjacent to the contamination site** and is as thick as **ten feet** in some locations.
 - The black, tarry substance has not been able to be cleaned up and is a consistent source of problems for the community. For many years, residents living near the railroad site have complained of adverse health effects and an unsafe environment that they have attributed to the creosote contamination.

- Dioxin is a highly toxic compound and is associated with **liver cancer** among other severe health risks.
- In July 2022, HHD conducted environmental surface soil sampling and found that **Dioxins were present in all of the soil samples taken around the community** as part of this sampling event.

- In October 2022, HHD collected attic dust wipe samples at 19 residences located near the UPRR site.
 - **All dioxin/furan dust attic dust sample concentrations (TEQs) were detected above their respective laboratory sample detection limits.**
 - Laboratory results indicate that the two highest dioxin/furan TEQ values were detected in houses that were among those located closest to the UPRR site.
 - In addition, concentrations detected in attics located closest to the UPRR site were higher than those located in attics further from the site.
- EPA requested that HHD disseminate an educational flyer regarding Dioxin safety to the community.



Dioxin Safety Guidelines

Because elevated dioxins/furans concentrations were identified in soil samples across the study area (shown in the map provided), further surface soil sampling is necessary to determine the extent of concentrations in the neighborhoods. To protect the community from additional potential dioxin exposure, the City of Houston Health Department and EPA strongly recommend community members take the following actions to minimize exposure from soil:

- It is important to note that dioxins are found throughout the world in the environment, and they accumulate mainly in the fatty tissue of animals. EPA estimates that more than 90% of typical human exposure is by eating animal fats, mainly meat, dairy products, fish, and shellfish. For this reason, follow these guidelines to reduce potential exposure:
 - Chicken eggs, especially the yolks, could contain higher levels of dioxin if the chickens eat bugs or worms from soil that contains dioxin. To reduce chickens' exposure to dioxin, use commercial feed. If this is not possible, do not eat egg yolks from these chickens.
 - Trim fat from meat and consume low-fat dairy products to decrease exposure to dioxin compounds.
 - Remove skin from chicken and fish where dioxins are more concentrated.
 - Check local fishing advisories when catching your own fish.
- In general, minimize contact with soils in the study area.
- Do not allow children to play in soils that may contain higher levels of dioxins, and discourage them from eating dirt or putting toys or other objects in their mouths.
- Minimize inhalation and ingestion of airborne soil particles. Consider wearing a face mask in dusty conditions.
- Wash hands and under fingernails frequently if working with soil.
- Do not eat fruits and vegetables grown in home gardens unless they have been thoroughly peeled or washed, preferably with mild soap.
- While gardening, do not drink, smoke or eat to reduce the chance of getting soil into the mouth. Keep soil moist while gardening to control dust.
- When gardening or working in close contact with soil, choose certain clothing, including footwear and tight-fitting disposable gloves, to wear only during these activities. Remove footwear before entering the house and store all tools, supplies and clothing used for these activities outdoors.
- Wash all exposed body surfaces, preferably by showering, as soon as possible after gardening.
- Before pets come inside, wipe their paws and fur with a wet cloth or towel to remove loose soil. Removing the loose soil will reduce the amount of potential contamination entering the house and will help to limit the transfer of potentially contaminated soil to children. Children also should wash their hands after playing with the pet.

Impacts on the Community



HHD Community Advisory Board (CAB)

WHAT IS THE CAB AND WHAT IS ITS PURPOSE?



The City of Houston team put together a Community Advisory Board (CAB) to inform negotiations in the lawsuit between the City of Houston and UPRR.

The CAB serves to provide counsel to the City and help ensure that these discussions result in the relief necessary to improve the health and well-being of the community.

The CAB consists of **7** representatives from elected officials'/government offices, **6** faith-based and community organizations local to the Fifth Ward/Kashmere Gardens neighborhoods, and **11** community members.

The CAB's first meeting took place on April 4, 2023.

- Discussed role of the CAB,
- Overview of testing efforts by HHD,
- Summary of Notice of Intent (NOI) to Sue issued to UPRR, and
- Details regarding the community's demands enumerated in the lawsuit, as gleaned from community representatives.

HHD ties into the demands enumerated in the NOI related to **identifying healthcare needs, access to healthcare, and relocation** for community residents whose properties have been affected by the contamination.

<https://fifth-ward-kashmere-gardens-uprr-epa.hub.arcgis.com/>

EPA also has been involved in addressing the UPRR contamination site, via two environmental laws:

- **CERCLA** (a.k.a. “Superfund”): Short-term and/or long-term removal and remedial actions to address dioxins in the soil.
- **RCRA**: Authority is delegated to Texas Commission on Environmental Quality (TCEQ).

Both of these laws guide the federal government’s response to managing and cleaning up hazardous waste sites and facilities.

EPA's oversight is limited to the **off-site soil contamination** – it does not cover UPRR's on-site contamination nor the creosote plume.

TCEQ still has oversight over the **permit and the creosote plume**, including the proposed slurry wall.

However, currently TCEQ activities are paused.

EPA also developed a community group known as a Community Advisory Group (CAG).

The EPA CAG is different from HHD's Community Advisory Board (CAB).

- HHD's CAB serves to **inform negotiations in the lawsuit against UPRR**, as well as disseminate information to the community regarding the whole UPRR contamination site.
- EPA's CAG is specific to the **CERCLA order for off-site soil investigations**.

UPRR has not made any offers regarding the demands enumerated in the lawsuit yet, so the next meeting of HHD's CAB is currently pending.

HHD remains concerned about the health of the community and the slowness of addressing their needs.