

Harris County Pollution Control Services Department | 2021 Emergency Response (ER) Overview

Dr. Latrice Babin, Executive Director
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April 21, 2022



Harris County Pollution Control Services Department (PCS) Overview

- Harris County Pollution Control Services (PCS) was established in 1953 as the County's sole environmental regulatory agency.
- PCS precedes the creation of the United States Environmental Protection Agency (EPA), established in 1970.
- PCS has a unique position in Harris County and the United States as one of few “stand-alone” environmental agencies with a dedicated environmental emergency response function.
- The vision of PCS is to build a safe, equitable, and healthy community through transparency and consistent enforcement of regulatory guidelines.
- The mission of PCS is to positively impact Harris County residents by proactively driving improvements to air, water, and soil quality through collaborative efforts with the community, expanded pollution monitoring and inspection programs, and innovative practices.

PCS Department Structure

❖ **PCS is divided into three separate divisions:**

❖ **Operations and Policy Division**

- Compliance Services
- Air Monitoring Services
- Permit Services
- Water Services

❖ **Technical Division**

- Emergency Response
- Field Investigative Services
- Laboratory Services

❖ **Communications Division**

- Community Engagement
- Data Analytics
- Environmental Toxicology

❖ **Total number of employees: 67 [May 2019-44 employees]**

PCS Emergency Response

The Pollution Control Services Department responds to hazardous materials incidents in Harris County and evaluates their impact to the public and the environment. The Emergency Response Team maintains 24-hour/day on-call coverage. Responses include fires involving hazardous materials, industrial facility releases, chemical spills, and abandoned drums and containers of unknown waste.

Additionally, the Emergency Response Section coordinates with the Monitoring and Surveillance Team who is charged with utilizing sophisticated instrumentation to measure air quality during environmental emergencies. When emergencies are not occurring, this team utilizes the same equipment to gather data for the day-to-day air quality and to locate and identify sources of air pollution.

Emergency Response



Rapid Ambient Air Monitor (RAAM)



Rapid Ambient Air Monitoring (RAAM)



RAAM

RAPID AMBIENT AIR MONITORING

The Rapid Ambient Air Monitoring (RAAM) Vehicle:

- ❖ Utilizes advanced air quality monitoring devices to measure air contaminants to low ppb levels
- ❖ Houses equipment that can identify the specific volatile organic compounds present
- ❖ Is network enabled, allowing data to be shared in near real time.
- ❖ Serves as a field screening lab, with the ability to screen samples of air, water and soil for contamination

ER Mobile Monitoring Equipment



Cerex UV Hound

- Rapid identification and quantification of 18 compounds including benzene



Flir Griffin G510 GC-Mass Spec

- Rapid identification of thousands of compounds



Dräger X-pid 9500

- Hand-held VOC detection

Autel-EVO-II-Dual Drone



Scentroid DR2000 Drone



PCS Complaint Line

***DO YOU HAVE A COMMENT OR COMPLAINT
(ENVIRONMENTAL CONCERN OR ISSUE)
IMPACTING YOUR COMMUNITY?***

***THE ONLINE PCS COMPLAINT
FORM IS NOW LIVE AT
PCS.HARRISCOUNTYTX.GOV***

- **GOOGLE MAPS INTEGRATION**
- **CONVENIENT AND EASY-TO-USE**
- **UPLOAD IMAGES**



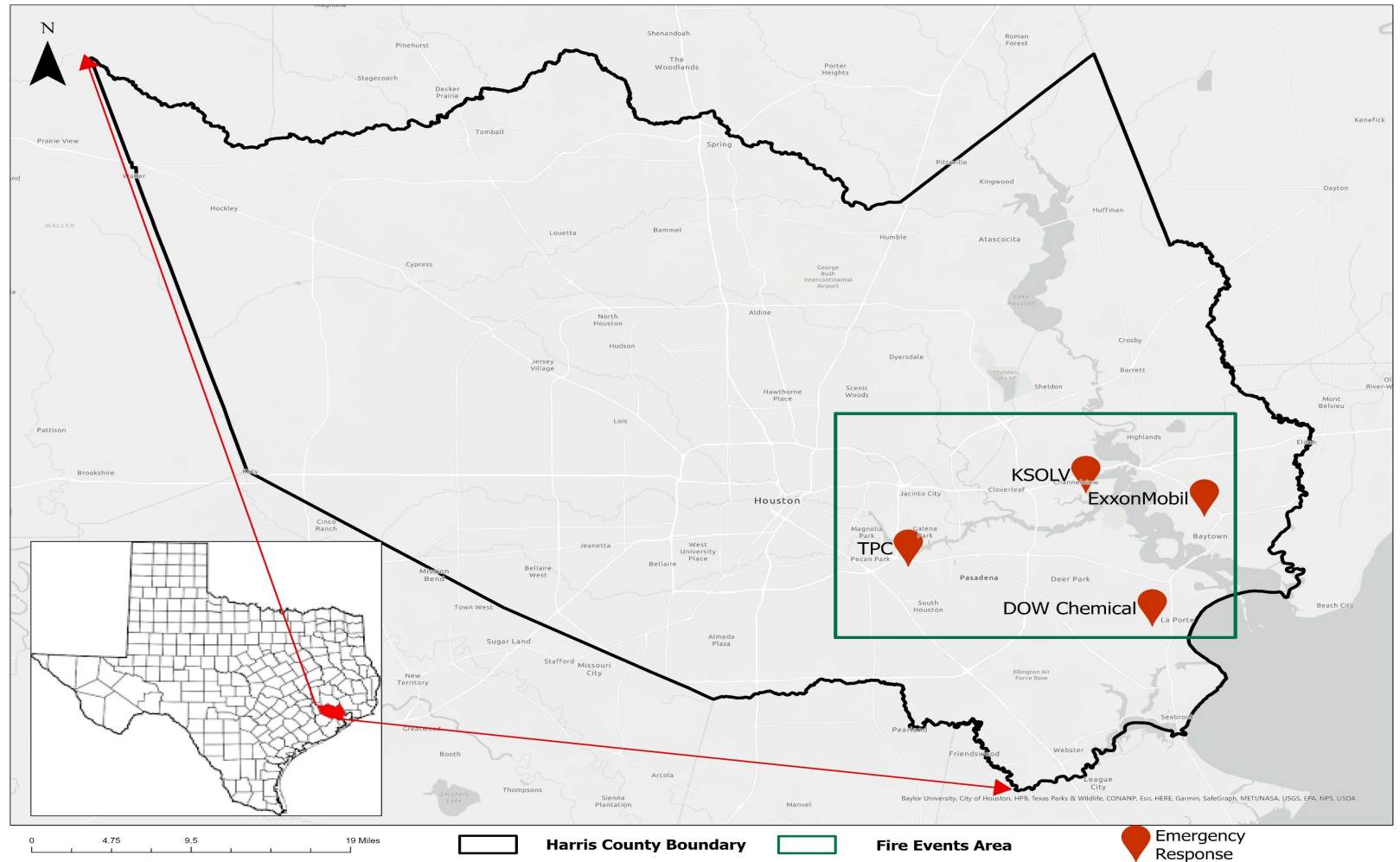
**CONTACT US AT (713) 920-2831 OR
POLLUTION.CONTROL@PCS.HCTX.NET**



2021 PCS Emergency Response Events

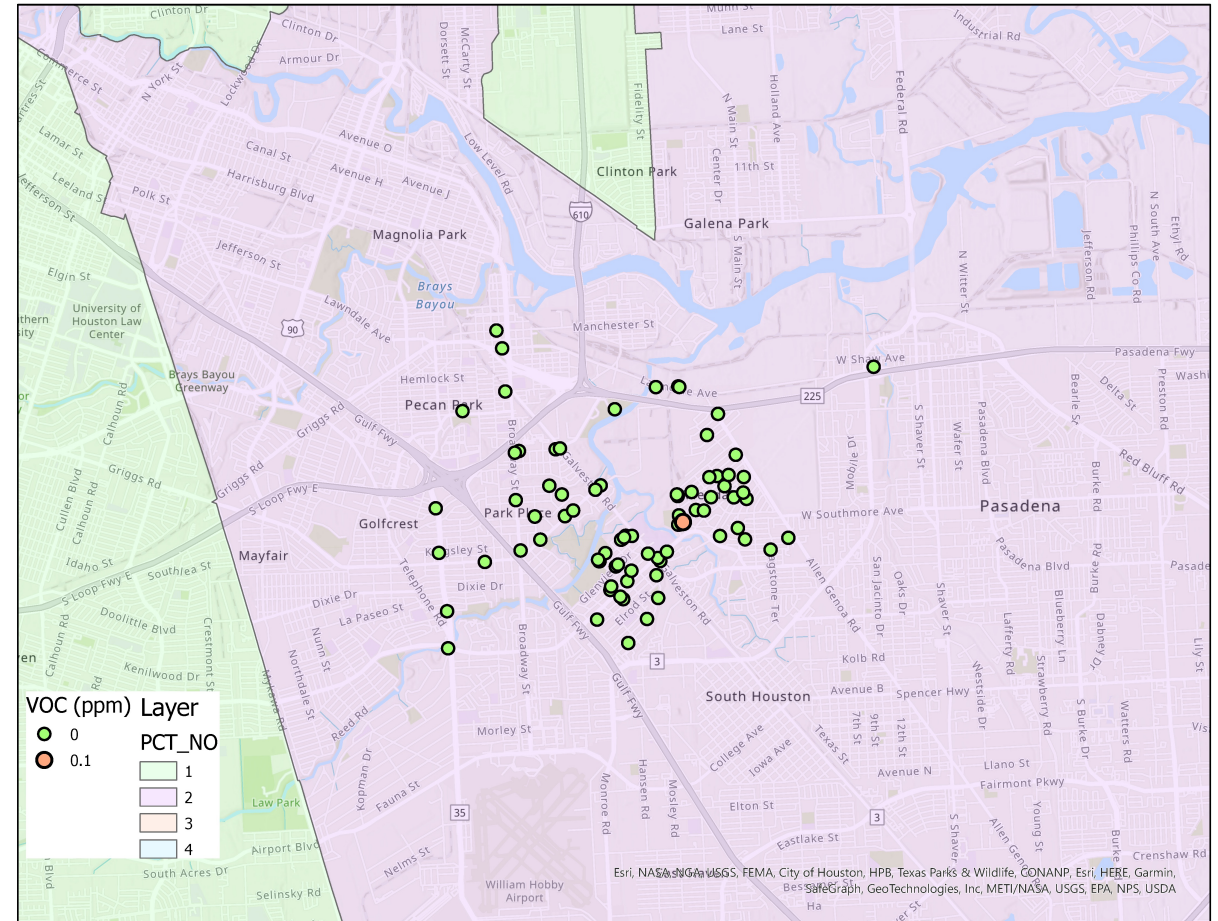
2021 EMERGENCY RESPONSE IN HARRIS COUNTY

- TPC
- KSOLV
- IDS/DOW
- ExxonMobil



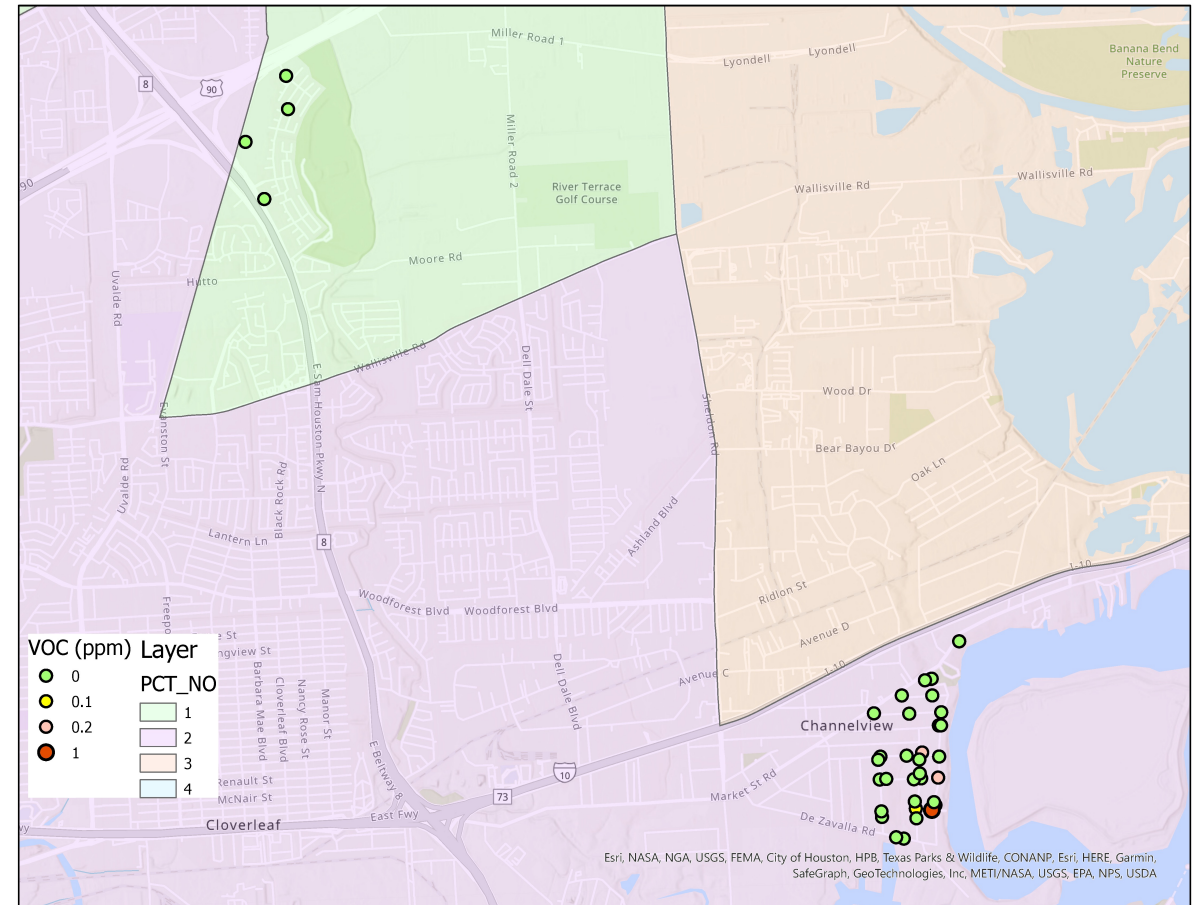
TPC Group – February 17, 2021

- Winter Storm Uri—Texas Deep Freeze and Power Outages
- TPC Group-Houston experienced a catastrophic failure of a 4" line on a spherical storage tank containing Isobutene and Butene.
- Total emissions associated with this event from all sources were reported by the facility as 204,572.62 pounds.
- PCS initiated a community air monitoring operation into the neighboring and downwind communities. {PCS normally conducts air quality monitoring operations before and after severe weather events.}
- As this event occurred during the weather event, there was an added layer of difficulty in this response due to navigating the roadways, however, we were able to accomplish this task with a dedicated focus and attention to conditions and safety.



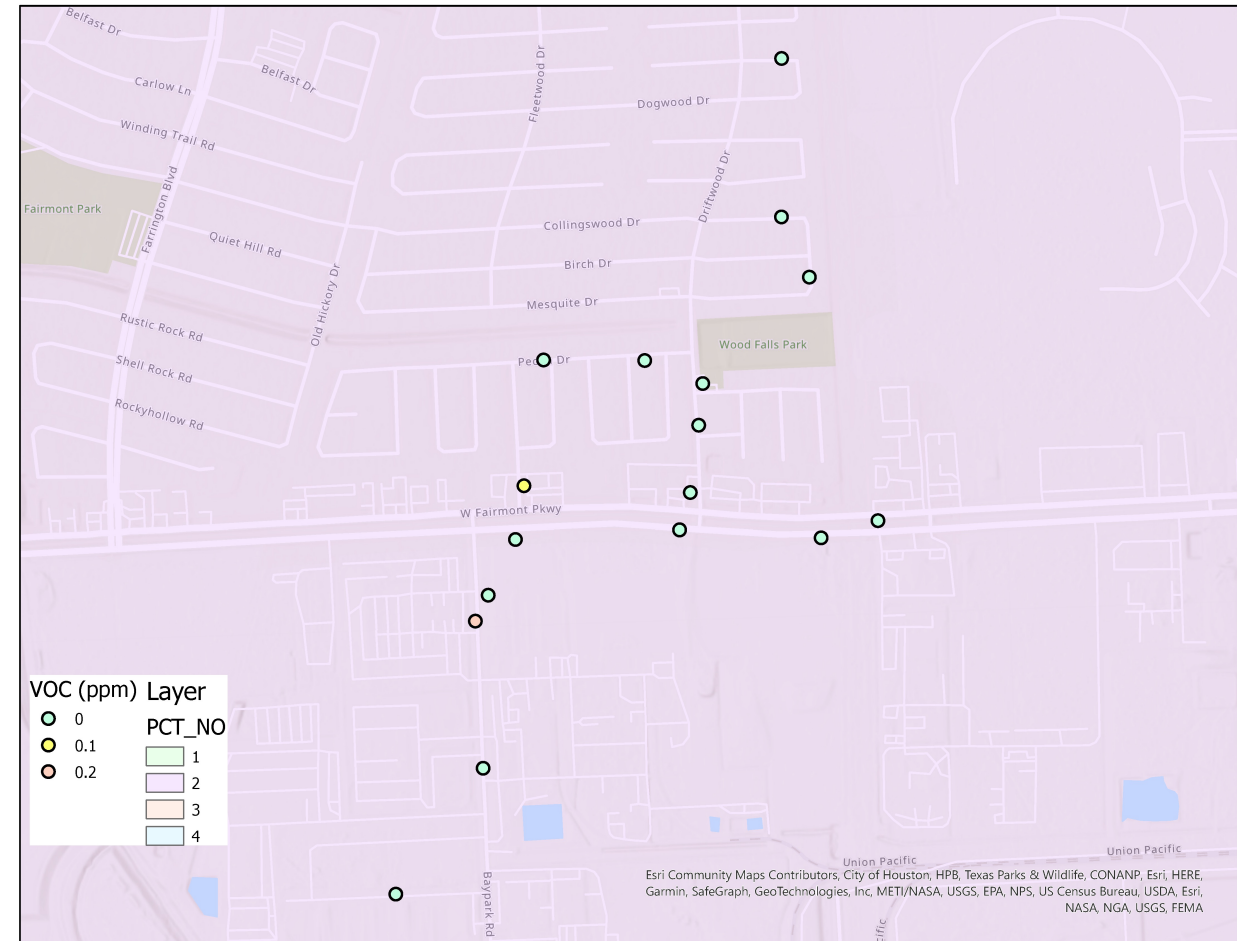
KSOLV — April 7, 2021

- K-Solv Chemicals LLC, experienced a fire in their waste storage area. The waste in this area is stored in drums and IBC bulk containers.
- The fire occurred during a transfer operation involving a toluene and naphtha mixture and quickly spread to the surrounding stored wastes. {This event impacted both air and water quality.}
- PCS established an air monitoring operation in the downwind community and conducted sampling of the adjacent roadside ditches that were impacted by the fire water run-off. Further, this facility sits directly on the San Jacinto River.
- Since this company also owns and houses an OSRO on site, containment was quickly established.
- Ultimately, the fire consumed the entire waste storage area and was extinguished within a few hours after consumption of all the fuel (stored waste).
- The estimated emissions from this event were 165,061 total pounds from 43 different compounds.



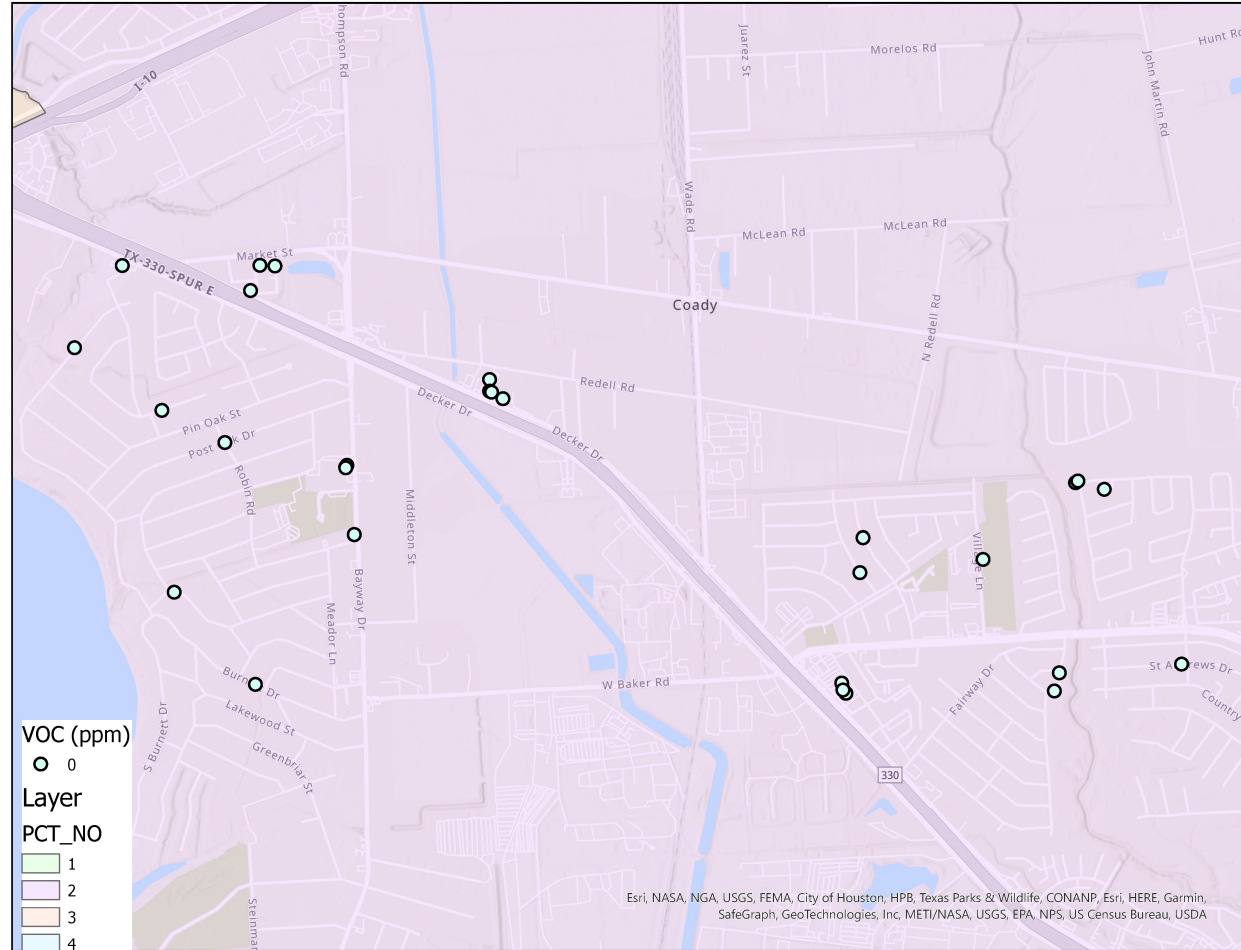
IDS/DOW – August 31, 2021

- This is an incident with a good ending.
- PCS initiated an emergency response and community air monitoring operation in response to a chemical road tank car that contained hydroxyethyl acrylate undergoing a decomposition reaction.
- As a result of the event, the area around the facility was sheltered in place.
- Fortunately, the reaction in the tanker was brought under control resulting in emissions below the reportable quantity.
- This is a good example of the need to initiate responses at the onset of the potential impact, as PCS assets were in place should the incident elevate, and offsite impact occur.



ExxonMobil – December 23, 2021

- ExxonMobil Baytown Refinery Hydro Desulfurization Unit 1 (HDU1) experienced a fire.
- This was a particularly challenging time for PCS to conduct an air monitoring response as the Emergency Response team had been heavily impacted by COVID-19.
- Despite that, PCS responded within minutes of the notification and was able to establish community air monitoring through the night until the fire was brought under control. {This illustrates the need for back-up plans in order to ensure protection of the community.}
- The only ground level impact observed offsite was a brief burning odor in the beginning of the air monitoring operation, however, the incident still resulted in 52,639.12 pound of emissions to the atmosphere.





Q&A



Harris County
Pollution Control



Dr. Latrice Babin,
Executive Director

latrice.babin@hcpcs.hctx.net

713-920-2831



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