



Dear Partners and Friends,

This morning we woke up to learn that the entire City of Deer Park has been issued a shelter in place due to hazardous levels of benzene, schools are closed, and highways have been shut down. Now, the shelter-in-place has been extended to the City of Galena Park. **This is not normal.**

We are aware of, and share, the health and safety concerns raised by the recent fire at the Intercontinental Terminals Company's (ITC) Deer Park facility and the accompanying air pollution. Our community has, once again, witnessed an unacceptable incident that has placed the health and safety of many at risk. Fortunately, we are also seeing increased attention directed at our region's air quality challenges, with a growing amount of voices calling for stricter environmental regulation and tougher action to protect our air, and our health. While the fire has been extinguished, concerns about air quality and the possibility of similar events occurring in the future remain. In light of this, I wanted to inform you about the activities we at Air Alliance Houston have been undertaking over the past few days to address the incident and to pressure policymakers to act on air pollution and hold facilities accountable.

**AAH staff has been gathering and reviewing information about the potential air quality threats and the resulting health impacts.**

So far, we know that the chemicals that were burning included at least Naphtha, Xylene, Toluene, and Benzene, all of which are toxic and can cause diverse adverse health impacts, ranging from short-term effects, such as nausea and headaches, to longer-term effects, including risk of cancer and risk to the nervous system, among others. While the exact amounts released of each of these chemicals are currently unknown, ITC has estimated that the blaze resulted in more than 9 million pounds of pollution to be released into the air just during the first day of the incident. This is more than what all the facilities together in the Houston area released during Hurricane Harvey, and in just one single day.

The ASPECT equipment being used by the US EPA to conduct flyovers is not well suited to detect the compounds that were expected in the plume. For example, chemicals such as benzene, toluene, and xylene were not detectable by this methodology. Data from TCEQ monitors is available for a few locations and have been showing elevated levels of benzene.

- a. Benzene was detected at 84.8 ppbv at Lynchburg Ferry on March 20 at 7 p.m.
- b. Benzene was detected in Deer Park at 66 ppbv Wednesday morning, March 20, at 6 am.
- c. On March 19 at 8 p.m. benzene spiked over 132 ppbv in Channelview.

While these are below TCEQ's short term exposure limits for benzene, we know that TCEQ's benzene limit is 23 times less stringent and health protective than California's benzene limit of 8ppb. On **Wednesday morning Shell Deer Park issued a shelter-in-place for their workers because of benzene levels and today the Cities of Deer Park and Galena Park have been issued a shelter-in-place because of benzene**. Please see here for instructions on how to shelter in place. We will continue to gather more information about the event as it becomes available.

In addition to cancer-causing chemicals like benzene, anytime there is a fire, particulate matter (PM) is a health concern. According to the EPA, PM can affect your heart and lungs, including aggravating asthma. Even after the fire, PM remains a concern as fine PM can linger in the air for months and spread over the region, depending on the winds.

The chemical components of the smoke plume will also likely affect regional ozone levels. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Ozone also can reduce lung function and inflame the linings of the lungs. The TCEQ has predicted moderate ozone levels for the Houston-Galveston-Brazoria (HGB) area. This massive release of pollution into the air will likely affect those predictions.

Children, older adults, pregnant women, and people with existing chronic diseases are more vulnerable to the health impacts from air pollution and should, therefore, take extra precautions during this time. We encourage everyone to monitor the air quality at [AirNow](#).

#### **AAH staff is installing PM monitors at local schools.**

To help protect the health of school children and residents in areas likely to be particularly susceptible to air pollution impacts, AAH has started installing Purple Air PM sensors in strategic locations to monitor the air quality in a number of Houston schools and residential neighborhoods. While these monitors do not detect chemicals like benzene, they are able to detect elevated levels of PM. You can see [here](#) where the installed sensors are located and track the data. We are working on installing more monitors in the coming days.

#### **AAH has been speaking with a number of news outlets about the potential air quality and public health threats.**

We have shared our concerns about the potential threats caused by the fire and the resulting air pollution with local and national media outlets. We have been calling for urgent action to close the loopholes that currently allow industry to escape penalties, while at the same time asking to have adequate and transparent monitoring, information, and risk management systems in place to protect public health in our communities. We have emphasized that:

- **Public safety requires full transparency.** Up until this point, the public has received only general statements concerning the air quality, however, no raw data has been provided. However, greater transparency of data is necessary to ensure that the health of local residents is being protected. During Hurricane Harvey, the EPA and TCEQ repeatedly stated that air quality was not at levels of concern despite industry reporting the release of millions of pounds of excess air pollution, only to later acknowledge that there were hotspots. We must avoid repeating what happened during

Harvey. When incidents happen, air quality data should be clearly and transparently communicated to the public.

- **Major chemical incidents are far too frequent in the Houston area, putting the health and well-being of all of us at risk.** The [Houston Chronicle found in 2016](#) that there is one every six weeks. The Deer Park fire is the second major event since Saturday. To break this unacceptable cycle of tragic events, we are calling for the TCEQ to make protecting our health and environment the agency's top priority and to penalize the industry for unauthorized pollution releases. According to a recent Environment Texas [analysis](#), TCEQ currently fails to penalize violators 97% of the time. This episode is also yet another reminder of the recklessness of the Trump administration's proposal to cut on EPA resources. The work of EPA is critical for protecting the people living in proximity of polluting refineries. Public safety requires more regulation and enforcement, not less.
- **We need readily available risk management plans and a toxic alert system.** Risk management plans should be made accessible to emergency first responders to provide them with as much information as possible on potential hazards at chemical facilities. In addition, a uniform toxic alert system should be established that would help better protect people when incidents like this happen by letting those near a toxic incident quickly know if they're safe and how to stay safe a threat does exist. Such a system was proposed to lawmakers in 2017, however, the bill was unsuccessful.
- **We need the EPA to implement the Chemical Disaster Rule.** The explosion makes clear how important it is to take immediate action to improve safety at these plants. The longer EPA delays the Chemical Disaster Rule, the longer it will be before industry makes necessary assessments and investments to prevent these types of incidents. Meanwhile, safety at these plants lags further and further behind. Many companies have refused to disclose information to the community about what is stored at their plants and what safety measures are in place. This is simply unacceptable.

**AAH has also been meeting with congressional officials' staff to ask that they hold EPA, TCEQ, and ITC accountable.**

The TCEQ Deer Park monitor has been on and offline. The EPA's ASPECT was not equipped to detect the expected chemicals. Several days ago, we recommended that a formal request be made to have NASA conduct flyovers. NASA's air sampling equipment is able to capture many more chemicals than the ASPECT. However, to our knowledge, this recommendation was not acted upon.

**AAH staff is also requesting that the CTEH release the methodology and all data collected so the findings can be verified.**

Lastly, to monitor air quality, ITC hired its own firm to test the air, Center for Toxicology and Environmental Health (CTEH). This company has a history of questionable air monitoring practices. We are requesting that CTEH release the methodology and all of the raw data collected so the findings in relation to the Deer Park fire can be verified.

**Please contact your [elected officials](#) and tell them we need their support to tell the EPA, TCEQ, and ITC to make all of the raw data available to the public and use the appropriate equipment to tell us what is in the air our communities, including our children, are breathing.**

**We will continue to be a strong advocate for clean air.**

Ongoing support is vital for us to continue to advocate for stronger air quality policies in Houston. Please consider donating to AAH to support our air monitoring and advocacy efforts to protect the health in our communities. Or give by using your voice to call your city, county, and state elected officials and demand that they address environmental impacts from this incident – ask them to support the work of AAH and other groups in telling the community about the public health impacts and holding industry accountable.

Sincerely,

Bakeyah S. Nelson  
Executive Director  
Air Alliance Houston