Message

From: Gray, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=881C62B1E54142388C1DE2F8E3799C33-GRAY, DAVID]
Sent: 3/23/2019 9:19:20 PM
To: Konkus, John [konkus.john@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Lyons, Troy [lyons.troy@epa.gov]; Palich, Christian [palich.christian@epa.gov]; Frye, Tony (Robert) [frye.robert@epa.gov]; McFaul, Jessica [mcfaul.jessica@epa.gov]; Abboud, Michael [abboud.michael@epa.gov]; Hewitt, James [hewitt.james@epa.gov]; Schiermeyer, Corry [schiermeyer.corry@epa.gov]
Subject: SAT PM — International Terminals Corporation Fire

For your awareness - Texas has issued this notice to ITC.

Immediate Action Needed - ITC

Good Afternoon,

Based on the failure of secondary containment and the reignition of the site and connected ditch on March 22, accompanied with eroding public confidence in ITC's response, TCEQ hired its own expert to assess the ongoing response by ITC. After assessing the site this morning, the following observations should be addressed immediately:

First and foremost, the primary safety concern is reignition at the tank farm.

Fire Suppression:

- Tune up the foam application program currently in place. The proportioning percentage of the foam may not match the type of foam currently being used. This is evident by visual inspection of the foam blankets throughout the area.
- The tank farm area needs to be ringed with semi-fixed unmanned nozzles to maximize coverage and

a realistic foam run to extinguish quickly any possibly future reignitions. This will also decrease the amount of water/foam used thus minimizing runoff.

- Equipment recommendations would include 6 screaming eagle or hemisphere semi-fixed nozzles and 2 large flow nozzles. Would also recommend an infrared or thermal imaging camera to read and/or detect any vapor yields.
- Develop a comprehensive hydraulic plan to ensure monitors discharge simultaneously.
- Evacuation of liquid inside secondary containment wall needs to be addressed asap.
- Continue aggressive metering and monitoring plan around tank farm area.
- Based on information from foam producers, the industry is at a critical level of AR AFFF 1x3 Foam.
- Firefighting team needs to focus on fire protection, fire suppression and vapor suppression not dewatering of secondary containment.

Environmental:

- Deploy 42" containment boom at mouth of Tucker Bayou where it enters Buffalo Bayou. Some of the released material is escaping under the 18" containment boom currently in place.
- Contain runoff to property. This has not been addressed adequately. Dam the ditches adjacent to the tank farm and waste water treatment plant and evacuate with large pumps and discharge in storage tank(s) on property. Although the secondary containment has buckled and spilled

contents into ditch, block or dam the ditches and use as secondary containment while simultaneously evacuating utilizing 6" to 12" pumps and transfer into storage tank on property.

- Start skimming operations in Tucker Bayou near Buffalo Bayou to start removing product. Currently, vacuum trucks are skimming with an open hose which is inefficient. Utilize actual skimming equipment for product removal. Flush Tucker Bayou beginning at Tidal Rd to collection points near Buffalo Bayou for removal.
- Continue aggressive metering and monitoring plan throughout facility where work is being performed.

Runoff containment/control – contain runoff to property / evacuate runoff utilizing trucks, pumps, etc… and store on site

Marine operations – utilize skimmers to remove material in water / maintain containment utilizing 42" containment boom. Flushing operations of Tucker Bayou.

Fire Safety/Fire Protection – coordinated effort with on-site resources to provide fire safety/suppression as needed for vapor control or reignition. This must be a manned operation at all times while work is being performed.

These operations can be performed simultaneously, not one area at a time. With a coordinated effort by parties involved, results will come quicker than currently projected.

TCEQ has two experts, Chauncey Naylor and Herman Ladner, from Williams Fire and Hazard Control onsite with our contractor. They are available to provide guidance with fire protection/suppression and vapor suppression activities, as well as how to safely dewater secondary containment. Please provide a response plan as to how the above list is being addressed by 5:30 PM today. Thank you.

Toby Baker

Executive Director, Texas Commission on Environmental Quality

Sent from my iPhone

On Mar 23, 2019, at 11:17 AM, Gray, David <gray.david@epa.gov> wrote:

A few additions - we are preparing an endangerment order to ITC. US Coast Guard is activating a cleanup contractor. EPA will initiate an emergency response to access funding. Working with TX on high levels of isopropylene (sp?) and possible source (may not be ITC). Update below will go out to congressional delegation shortly.

Call for details 214,789,2619.

Intercontinental Terminals Company (ITC) Fire Morning Update
Deer Park, Texas
March 22, 2019 1200 – March 23, 2019 0400

- EPA continues to participate in Unified Command with TCEQ, Harris County Pollution Control Services, and ITC.
- A partial breach of the tank farm containment wall on the northeast side near Tank 80-7 occurred at approximately 12:00 pm on March 22, 2019, to the ditched area and into Tucker Bayou. Additional boom has been placed along the ditch leading to Tucker Bayou, Tucker Bayou, and Buffalo Bayou. The Responsible Party's contractor has rebuilt the containment wall using clay material, but will continue to improve it during the day.
- At approximately 3:40 pm on March 22, 2019, three tanks reignited. The fire spread from the containment area through the breached containment wall into the ditch on Tidal Road. Foam was applied to the tanks and the ditch to fight the fire. A shelter in place recommendation was in effect for industrial neighbors, the Battleship Texas and Monument State Park. There was no shelter in place for the city of Deer Park.

• During and after the fire and the breach of the secondary containment, several readings of benzene above 1.0 ppm were detected (highest was 16.5 near National Tank Services) by the various entities conducting air monitoring through the afternoon and night time. These readings were located along the ship channel, Channelview.

• Foam continues to be applied to the secondary containment and tanks to reduce emissions and reignition of hot spots. At 3:00 am, approximately 145 totes (250 gal each) of foam were remaining. Approximately 200 additional totes are in route and will be arriving throughout the day.

• ITC will again attempt to start pumping product out of tank 80-7 (pyrolysis gasoline) to an empty tank within another tank farm.

• For safety purposes, there is no remediation actions taking place on the ship channel at night, but operations continued at night in the ditch area.

• As of 12:00 am on March 23, 2019, the RP had laid approximately 8,500 feet of boom in Tucker Bayou and areas along Buffalo Bayou. Another 600 feet will be deployed early on March 23. Booming has been placed around sensitive marsh areas, the battleship, and other sensitive areas of concerns. Currently, they have about 5,000 feet of additional boom.

• EPA conducted water sampling on March 22, 2019, in two locations in the drainage ditch feeding into Tucker Bayou and up by the Battleground park area. Samples will be analyzed for Chemical Oxygen Demand, VOCs, SVOCs, and oil/grease. Sampling was suspended after the breach in containment wall due to safety concerns from the containment breach.

• The Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft found detections of acetone, butadiene, isobutylene, 1-butene, and isoprene. ASPECT found exceedances of the Texas comparison values on the afternoon of March 22, 2019. ASPECT has conducted a screening level assessment to evaluate the unreported or undetected releases of hazardous materials or contaminants at the Intercontinental Terminal Company (ITC) in Deer Park, Texas. The screening level results from ASPECT were compared to the ASPECT list of Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs) and found exceedances of the short-term AMCVs for butadiene (1.7 ppm) and isoprene (0.02 ppm).

• The ASPECT aircraft is undergoing maintenance and is expected to be ready for operation at approximately 12:00 pm on March 23, 2019.

• EPA conducted air sampling using the Trace Atmospheric Gas Analyzer (TAGA) from March 22, 2019 (12:00 pm) to March 23, 2019 (4:00 am). The TAGA analyzed the air samples for benzene, toluene and xylene. The TAGA air sampling results were compared to compared to the Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs) and found no exceedances of the short-term AMCVs for toluene and xylene. The TAGA air sampling results found exceedances of the short-term AMCV for benzene. These exceedances of the short-term AMCV for benzene partially correspond to the ITC site and have been shared with unified command and local officials.

• EPA conducted handheld air monitoring from March 22, 2019 (12:00 pm) to March 23, 2019 (4:00 am) at 50 locationslocated in residential areas north of the ship channel as the wind was from the south/south-east. Results were reported above the detection limit at five locations for total volatile organic compounds (VOCs) and five locations for benzene. Benzene was detected at two of these locations above the short-term AMCVs for benzene (0.18 ppm). EPA will conduct additional air monitoring and deploy the Trace Atmospheric Gas Analyzer (TAGA) to determine if the short-term AMCV for benzene continues to be exceeded.

• CTEH continued air monitoring and from March 21, 2019 12:30 pm to March 22, 2019 12:00 am, there were 344 VOC readings and 133 benzene readings (with 2 detections above 1.0 ppm)

• Rapid Assessment Team (RAT) activities were cancelled on March 22, 2019 due to safety concerns after the containment breach.

• EPA continues to participate in the daily press conferences held at the ICP.

Sent from my iPhone

On Mar 22, 2019, at 6:03 PM, Gray, David <gray.david@epa.gov> wrote:

Intercontinental Terminals Company (ITC) Fire Special Update
Deer Park, Texas
March 22, 2019 1200 – March 22, 2019 1600

- At approximately 3:40 pm on March 22, 2019 three tanks reignited. The fire spread from the containment area through the breached containment wall into the ditch on Tidal Road. Foam was applied to the tanks and the ditch to fight the fire. A shelter in place recommendation was in effect for industrial neighbors, the Battleship Texas and Monument State Park. There was no shelter in place for the city of Deer Park.
- During the reporting period, the Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft found no exceedances of the Texas comparison values on March 22, 2019 from 12:00 pm to 4:00 pm. ASPECT has conducted a screening level assessment to evaluate the unreported or undetected releases of hazardous materials or contaminants at the Intercontinental Terminal Company (ITC) in Deer Park, Texas. The screening level results from ASPECT were compared to the ASPECT list of Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs) and found no exceedances of the short-term AMCVs. Acetone was detected below the short-term AMCV near the ITC site.
- During the reporting period, EPA conducted handheld air monitoring on March 22, 2019 from 12:00 pm to 4:00 pm at three locations. No results above the detection limit have been observed.
- During the reporting period, EPA conducted air sampling using the Trace Atmospheric Gas Analyzer (TAGA) on March 22, 2019 from 12:00 pm to 4:00 pm near the ITC site. The TAGA analyzed the air samples for benzene, toluene and xylene. The TAGA air sampling results were compared to the Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs) and found no exceedances of the short-term AMCVs for toluene and xylene. The TAGA air sampling found exceedances of the short-term AMCV for benzene. These exceedances of the short-term AMCV for benzene corresponded to the ITC site.

  <image001.png>

<image002.png>

From: Gray, David
Sent: Friday, March 22, 2019 3:49 PM
To: Konkus, John <konkus.john@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Palich, Christian <palich.christian@epa.gov>; Frye, Tony (Robert) <frye.robert@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: URGENT - International Terminals Corporation Fire

There has been a failure in the secondary containment at the ITC facility and up to 40,000 gallons of material has been released into a ditch that flow to the nearby bayou. Emergency response personnel are responding. The exposed material has increased vapor concentrations in the area. Air concentrations have risen and locals have called for a shelter in place. Several nearby facilities are reading higher levels on their monitors also. As I write this, I have also been informed that several fires have been spotted at the ITC facility.

I am notifying the Congressional delegation now.

From: Gray, David
Sent: Friday, March 22, 2019 12:15 PM
To: Konkus, John <konkus.john@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Palich, Christian <palich.christian@epa.gov>; Frye, Tony (Robert) <frye.robert@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: Re: HEADS UP - International Terminals Corporation Fire

All - I just heard that the secondary containment in one area has failed and could release up to 40,000 gallons of material into the Bayou.

More shortly

Sent from my iPhone

On Mar 22, 2019, at 9:02 AM, Gray, David <gray.david@epa.gov> wrote:

> Quick update – air reading generally good. No shelter in place for Deer Park. Several schools had already announced closing today more due to having to plan ahead than data. TAGA doing community monitoring only seeing readings near gas stations and busier auto congested areas (intersections). Suspect tank appears to be the source of vapors and

foaming/off loading have reduced vapor levels in nearby areas. Attention turning to water and impacts on Tucker Bayou. Working with variety of HQ offices to look at PFFF impacts.

Long version

Intercontinental Terminals Company (ITC) Fire Morning Update
Deer Park, Texas
March 21, 2019 1200 – March 22, 2019 0400

- EPA continues to participate in Unified Command with TCEQ, Harris County Pollution Control Services, and ITC.
- Foam continues to be applied to the secondary containment and tanks to reduce emissions and reignition of hot spots.
- ITC provided a list of foams that were ordered and used during fire-fighting efforts. ITC plans to sample the foam totes for PFOS/PFOA, as well as the water and foam within the secondary containment once it safe to do so.
- The Pasadena, La Porte, and Deer Park ISDs decided to cancel classes for Friday, March 22, 2019. There was a concern that the same weather conditions which created the elevated benzene levels on the morning of March 21, 2019, may occur again on the morning of March 22, 2019.
- EPA conducted surface water sampling at five locations along Buffalo Bayou. One location was above the confluence of Tucker Bayou and Buffalo Bayou, one location was at the confluence of Tucker Bayou and Buffalo Bayou, and three were downstream from the confluence of Tucker Bayou and Buffalo Bayou.
- ITC continues to take water samples every two hours at the ditch feeding into Tucker Bayou and send the samples to an outside laboratory for analysis.
- EPA conducted air sampling using the Trace Atmospheric Gas Analyzer (TAGA) on March 21, 2019. The TAGA analyzed the air samples for benzene, toluene and xylene. The TAGA air sampling results were compared to compared to the Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs) and found no exceedances of the short-term AMCVs for toluene and xylene. The TAGA air sampling results found eleven locations that the short-term AMCV for benzene was exceeded. These locations corresponded to gasoline stations and traffic congestion along the Sam Houston Tollway (Beltway 8). These exceedances of the AMCV for benzene are unrelated to the ITC site.
- EPA conducted handheld air monitoring from March 21, 2019 (12:00 pm) to March 22, 2019 (4:00 am) at 32 locations. Results were reported above the detection limit at one location for total volatile organic compounds (VOCs) and

benzene. Benzene was detected at this one location at 0.35 ppm, which is above the short-term AMCVs for benzene (0.18 ppm). EPA notified Unified Command and local officials for further action. EPA will conduct additional air monitoring and deploy the Trace Atmospheric Gas Analyzer (TAGA) to determine if the short-term AMCV for benzene continues to be exceeded.

- ITC continued air monitoring in the communities around the facility. There was one detection of benzene at 1.05 ppm close to the Battleship Monument north of the facility. Subsequent monitoring was non-detect. By 12:30 on March 21, 2019, IT had taken 909 VOC readings/52 detections, as well as 745 benzene readings/51 detections.
- TCEQ, EPA, ITC, and Deer Park officials discussed action levels for issuing shelter-in-place advisories for the city. The city determined to leave the action levels at 1 ppm.
- ITC is developing a waste management plan for the final disposition of the materials within the tanks and secondary containment.
- A very small flash fire occurred at the manifold (at the edge of the tank farm) at approximately 1900 on March 21, 2019, hours due to insulation situated next to a charged steam line. The fire lasted less than five minutes.
- A Rapid Assessment Team (RAT) comprised of ITC, TCEQ, and USCG representatives will visually assess and document the extent of the release along the bayou, starting at approximately 0815 hours.
- The U.S. Chemical Safety Board was on site on March 21, 2019 and interviewed several persons involved in the response. They will be here for several days to conduct the investigation.
- The Texas Poison Control Network received a total of 33 calls from March 17, 2019 to March 21, 2019. Of these calls, 28 calls were possible exposures and 5 were requests for information calls.