**TCEQ Resource Materials for Committee Hearings on ITC Incident**
**April 4th and 5th, 2019**

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***Note:*** *These materials are preliminary and subject to update and refinement as more information becomes available.*

ED_002627_00014435-00001

# Attachment A – Incident and Fire Response Timeline

## Sunday, March 17, 2019

At approximately 10:22 AM, Intercontinental Terminals Company (ITC) Deer Park experiences a fire at their tank farm in Tank No. 80-8 which ITC reports held naphtha. ITC reports that it evacuated facility personnel and the City of Deer Park issues a shelter-in-place for the north end of the City. The Lynchburg Ferry and parts of State Highway (SH) 225 near the facility are closed.

The incident is reported to the Texas Commission on Environmental Quality (TCEQ) through the State of Texas Spill-Reporting Hotline at 12:13 PM and the National Response Center at 12:29 PM.

TCEQ dispatches its Houston Region Emergency Response Coordinator at approximately 12:45 PM. The Coordinator arrives on scene at approximately 1:45 PM.

The City of Deer Park expands the initial shelter-in-place to include the whole city at approximately 1:20 PM.

At 3:30 PM, ITC reports that they are fighting the fire defensively in order to ensure that the fire does not spread.

At 7:00 PM, ITC reports that the fire in the tank holding naphtha has spread to another tank containing xylene.

## Monday, March 18, 2019

At 1:30 AM, ITC reports that the Fire has spread to five additional adjacent tanks, for a total of seven tanks involved.

At 5:30 AM, ITC reports that the fire has spread to an additional tank. The 8 tanks now involved in the fire contain gasoline blends, toluene, naphtha, xylenes, pyrolysis gasoline, and blended oils (two of the tanks are reported to be empty). The shelter-in-place for the City of Deer Park remains in effect. SH 225 continues to be closed in both directions near the facility.

Emergency fire responders continue to use foam and water to control the fire.

ITC reports that the fire intensified overnight on Monday due to a temporary loss of water pressure and water resources between the hours of 4:00 PM and 10:00 PM. The loss of water pressure was due to the malfunction of two fireboat pumps that were providing water to firefighters operating on the scene. Water pressure and water resources are restored and emergency responders continue working on suppressing the fire on tanks 80-2, 80-3, 80-5, 80-6, 80-8 and 80-11. Tanks 80-9 and 80-12 are empty and have collapsed.



***Note:*** *These materials are preliminary and subject to update and refinement as more information becomes available.*

The following responders reported to the scene to operate under Unified Command: Channel Industries Mutual Aid (CIMA), Houston Port Authority, Harris County Hazmat (HC Hazmat), Harris County Pollution Control Service (HCPCS), United States Coast Guard (USCG), EPA/Weston Solutions, and TCEQ.

**Tuesday, March 19, 2019**

At 2:30 AM, ITC reports that two additional tanks, 80-14 and 80-15, both containing pyrolysis gasoline, are confirmed to be on fire bringing the total to 10 tanks burning.

ITC brings in Industrial Firefighting Company. The Harris County EOC reports that ITC has contracted Williams Fire Control to fight the fire. (TCEQ later clarified that ITC brought in Dwight Williams with US Fire Pump. Dwight is the former owner of Williams Fire and Hazard Control.)

ITC reports that the additional response resources are expected to be operational by 8:00 AM.

At 10:00 AM, ITC reports that additional response resources have arrived, including specialty third-party firefighting teams.

At 4:00 PM, ITC reports that only seven tanks continue to burn and that firefighters, including specialty teams that arrived earlier today, continue using foam and water to suppress the fire on tanks 80-2, 80-3, 80-4, 80-5, 80-6, 80-7, and 80-8. (As of 3:45 PM, 8 tanks are not on fire: 80-1, 80-9, 80-10, 80-11, 80-12, 80-13, 80-14 and 80-15). Nearby underground pipelines and other equipment near the incident site have been taken off line, and fighters are continuing to take steps to further reduce the risk of explosion.

At 9:45 PM, ITC reports that only four tanks at ITC's Deer Park facility are experiencing various levels of fire: 80-2, 80-3, 80-5, and 80-14. Firefighters continue to apply foam and water to the active and inactive tanks.

Successful firefighting efforts for previously burning tanks have allowed resources, including additional third-party and partner-provided resources, to concentrate on offensively extinguishing other tanks.

**Wednesday, March 20, 2019**

At 4:00 AM, ITC issues a press statement indicating all tank fires have been extinguished and that crews continue to spray foam and water to cool the tanks and to prevent reignition of the remaining material. Additionally, ITC reports that it is conducting vapor suppression.

After 5:00 PM, a flash fire occurs in one of the tanks and is extinguished within approximately five minutes.


***Note:*** *These materials are preliminary and subject to update and refinement as more information becomes available.*

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**Thursday, March 21, 2019**

At approximately midnight, Center for Toxicology and Environmental Health (CTEH) and ITC handheld air monitors record elevated benzene levels at the Incident Command Post (ICP). TCEQ monitoring vans are relocated to confirm a benzene spike. Periodic elevated benzene readings are recorded at Lynchburg Ferry and Deer Park #2 CAMs when downwind of ITC.

ITC sends out an E-Notify at 2:57 AM stating that there is a potential that the elevated benzene levels will impact residential areas. At 3:26 AM, ITC issues an industrial shelter-in place due to the elevated benzene readings.

**Friday, March 22, 2019**

ITC contracts with The Response Group to develop and direct an Incident Action Plan.

At approximately 12:15 PM, a portion of the dike wall surrounding the secondary containment area around the Tank farm is breached releasing a mixture of firefighting water, firefighting foam, and petrochemicals. The breach occurs near tank 80-7 and is approximately 10 feet wide. This mixture discharges into a drainage ditch that runs East to West on Tidal Road and eventually reaches the HSC via Tucker Bayou. In response to this breach, the USCG closed a portion of the HSC between Tucker Bayou and the San Jacinto Monument to Crystal Bay.

At approximately 3:45 PM, multiple tanks at the site re-ignite (tanks 80-2, 80-3 and 80-5). The fire spreads to the drainage ditch where the release of firefighting water, firefighting foam, and petrochemicals occurred previously. The fire is extinguished around 4:45 PM.

The TCEQ activates its emergency response contractor SWS to bring in Professional Industrial Firefighting experts to evaluate the firefighting efforts and provide guidance to firefighters on the ground.

**Saturday March 23, 2019**

The containment wall is secured at 4:00 AM. The root cause of the dike wall breach remains under investigation.

**Note: This is still an active response. The cause of the fire is under investigation. There have been no fatalities reported.**


***Note:*** *These materials are preliminary and subject to update and refinement as more information becomes available.*

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# Attachment B – Environmental Response Timeline

## Sunday, March 17, 2019

At approximately 10:22 AM, Intercontinental Terminals Company (ITC) Deer Park experiences a fire at their tank farm in Tank No. 80-008 which reportedly held naphtha. ITC evacuates facility personnel and a shelter-in-place is issued for the north end of the City of Deer Park. The Lynchburg Ferry and parts of State Highway (SH) 225 near the facility are closed.

The incident is reported to the Texas Commission on Environmental Quality (TCEQ) through the State of Texas Spill-Reporting Hotline at 12:13 PM and the National Response Center at 12:29 PM.

TCEQ dispatches its Houston Region Emergency Response Coordinator at approximately 12:45 PM. The Coordinator arrives on scene at approximately 1:45 PM to ensure that ITC is conducting air monitoring and initiating appropriate emergency response actions.

The City of Deer Park expands the initial shelter-in-place to include the whole city at approximately 1:20 PM.

At approximately 9:00 PM, TCEQ conducts air monitoring in Deer Park utilizing handheld equipment (two Toxic Vapor Analyzers (TVAs) to detect VOCs and utilizing four MultiRAEs to detect lower explosive limits (LEL), VOCs, hydrogen sulfide (H2S), and carbon monoxide (CO)). The staff notes slight odors, however, no readings of concern are detected. TCEQ investigators leave the area around 11:15 PM.

TCEQ requests that EPA begin conducting aerial screening level assessments with the use of the Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft to evaluate the unreported or undetected releases of hazardous materials or contaminants in the vicinity and downwind of the incident.

## Monday, March 18, 2019

By 5:00 AM, at least eight tanks containing gasoline blends, toluene, naphtha, xylenes, pyrolysis gasoline, and blended oils are involved in the fire. The shelter in place for the City of Deer Park remains in effect. SH 225 remains closed in both directions near the facility.

The following responders reported to the scene to operate under Unified Command: Channel Industries Mutual Aid (CIMA), Houston Port Authority, Harris County Hazmat (HC Hazmat), Harris County Pollution Control Service (HCPCS), United States Coast Guard (USCG), EPA/Weston Solutions, and TCEQ Houston Regional staff, Mobile monitoring assets/staff, and additional Emergency Management staff from Austin.

The TCEQ deploys two additional air monitoring stations (monitoring vans) to be strategically located in coordination with the Unified Command. The monitoring vans are onsite between 9:30 and 10:30 AM. Air monitoring conducted in the area and downwind report no findings of concern.

ITC contracts with CTEH to draft and submit an air monitoring plan to Unified Command.



***Note:*** *These materials are preliminary and subject to update and refinement as more information becomes available.*

TCEQ asks EPA to deploy its Trace Atmospheric Gas Analyzer (TAGA) unit.

ITC notifies the State Emergency Response Commission (SERC) and the National Response Center of a fire-water discharge from permitted stormwater Outfall No. 003 (WQ0001984000) into a ditch that leads to the Houston Ship Channel (HSC) via Tucker Bayou. Booms are placed in the ditch to prevent the fire water from reaching the HSC. ITC conducts hourly water sampling at Outfall No. 003. The USCG sends a small boat into Tucker Bayou for a visual inspection.

The TCEQ activates its emergency response contractor, NRC/SWS, to conduct water sampling from Tucker Bayou to the HSC.

**Tuesday, March 19, 2019**

At 5:30 AM, TCEQ Houston Region staff and the TCEQ contractor begin conducting 24-hour monitoring across the area with handheld equipment.

VOC readings from stationary air monitors downwind of the ITC fire are below their respective air monitoring comparison values (AMCVs). All measurements from the monitoring vans remained below short-term AMCVs.

TCEQ Emergency Management Support Team (EMST) staff report to the EOC and two EMST staff remained at the ICP.

ITC collects water samples on an hourly basis to assess impacts of fire-suppression water runoff on Tucker Bayou downstream of the plant. ITC also retains a contractor to conduct a comprehensive sampling program.

The TCEQ conducts odor surveys and air monitoring downwind of the fire with the monitoring vans and handheld equipment. No constituents of concern are detected above action levels at any location.

NRC/SWS, accompanied by TCEQ Houston Region staff, collect water samples from four locations within the impacted area.

**Wednesday, March 20, 2019**

VOC readings from stationary air monitors downwind of the ITC fire are all below their respective short-term AMCVs. TCEQ staff and contractors continue air quality monitoring with both handheld equipment and the monitoring vans. No detectable levels of benzene are measured.

ITC places a series of double containment booms along Tucker Bayou. Skimmers are being used to remove foam from the bayou and channel.

**Thursday, March 21, 2019**

At approximately midnight, CTEH and ITC handheld air monitors record elevated benzene levels at the Incident Command Post (ICP). Monitoring vans are relocated to confirm a


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benzene spike. Periodic elevated benzene readings are recorded at Lynchburg Ferry and Deer Park #2 stationary monitors when downwind of ITC.

ITC sends out an E-Notify at 2:57 AM stating that there is a potential that elevated benzene levels will impact residential areas. At 3:26 AM, ITC issues an industrial shelter-in place due to the elevated benzene readings.

TCEQ activates its emergency response contractor, NRC/SWS, to provide four air monitoring teams to augment TCEQ air monitoring efforts.

The EPA TAGA unit arrives and begins conducting monitoring focusing on areas where there have been complaints and elevated air monitoring readings.

**Friday, March 22, 2019**

TCEQ continues conducting air sampling in and around the impacted area with both handheld monitors and with the monitoring vans. Notable readings are measured at various locations at various times throughout the day.

At approximately 8:15 AM, a Rapid Assessment Team (RAT) comprised of ITC, TCEQ, and USCG assesses and documents the extent of the fire water/firefighting foam runoff. ITC contractor, Cardno, continues to work on a water sampling plan and to conduct water sampling for ITC. USCG works with Oil Mop Inc. (OMI) to recover firefighting foam from the HSC.

ITC contracts with The Response Group to develop and direct an Incident Action Plan. CTEH begins developing a waste management plan.

At approximately 12:15 PM, a portion of the dike wall surrounding the secondary containment area around the Tank farm is breached releasing a mixture of firefighting water, firefighting foam, and petrochemicals. This mixture discharges into a drainage ditch and eventually reaches the HSC via Tucker Bayou. In response to this breach, the USCG closes a portion of the HSC between Tucker Bayou and the San Jacinto Monument to Crystal Bay.

At approximately 3:45 PM, multiple tanks at the site re-ignite. The fire spreads to the drainage ditch where the release of firefighting water, firefighting foam, and petrochemicals occurred previously. The fire is extinguished around 4:45 PM.

TCEQ asks EPA to re-deploy its ASPECT aircraft to conduct a second sortie for the day.

On behalf of the TCEQ, the Texas Attorney General files a Petition and Application for Injunctive Relief in the District Court of Travis County against ITC for violations of the Texas Clean Air Act.

The TCEQ activates its emergency response contractor NRC/SWS to bring in professional industrial firefighting experts to evaluate the firefighting efforts and provide guidance to firefighters on the ground.


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**Saturday, March 23, 2019**

The TCEQ begins surface water quality sampling on Tucker Bayou, upstream of wastewater treatment plant (WWTP) Outfall 022, on the west shoreline of Tucker Bayou under the Tidal Road Bridge, and in northern Galveston Bay.

At 3:28 PM, the TCEQ Executive Director communicates specific expectations for addressing site issues to the ITC CEO/President via email. The ITC CEO/President responds via email at 5:12 PM, acknowledging the observations and indicating that a new Incident Action Plan would be made available to Unified Command by 10:00 PM.

At 8:30 PM, EPA delivers an Administrative Order under the Clean Water Act to ITC representatives.

**Sunday, March 24, 2019**

TCEQ continues to conduct surface water quality sampling on Tucker Bayou, upstream of WWTP Outfall 022, on the west shoreline of Tucker Bayou under the Tidal Road Bridge, along the shoreline on Galveston Island, and in northern Galveston Bay.

Elected officials and TCEQ hold a public meeting.

ITC provides a draft Waste Management Plan to TCEQ for review.

**Monday, March 25, 2019**

TCEQ continues conducting air sampling in and around the impacted area with both handheld monitors and with the monitoring van equipped with gas chromatography (GC) equipment. Occasional spikes of benzene and VOCs are measured but quickly dissipate throughout the day.[1]

ITC continues pumping the contents of impacted tanks to non-impacted tanks onsite. ITC continues to maintain two-foot blanket of foam within the secondary containment to minimize emissions and reduce the risk of reignition.

Booms are deployed downstream of the release to contain potential discharge. Any observations of concern identified by USCG during UAV flights are reported and assessed. Remediation operations continue.

Surface water quality monitoring continue to be conducted in northern Galveston Bay, as well as shoreline sampling on Galveston Island.

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[1] As it collected, monitoring data is shared with incident commend and local entities responsible for making decisions regarding public health, such as decisions to shelter-in-place.



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**Tuesday, March 26, 2019**

TCEQ and its contractors continue conducting air sampling in and around the impacted area with both handheld monitors and with the GC monitoring van. Periodic detection of VOCs at background levels and periodic spikes of benzene in various locations are detected.

USCG opens the HSC to one-way traffic during daylight hours and the San Jacinto River to two-way traffic during daylight hours. Transport through the HSC and the San Jacinto River is directed by the Port of Houston Authority (Captain of the Port). Old River to Carpenters Bayou remains closed to all traffic.

TCEQ provides input to Unified Command on the draft Waste Management Plan.

ITC provides TCEQ a copy of its Emergency Response Plan and Facility Response Plan. The Surface Water Sampling Plan for the event is also provided for review.

TCEQ continues surface water quality monitoring in northern Galveston Bay, as well as shoreline sampling on Galveston Island.

**Wednesday, March 27, 2019**

Stationary monitors continue to detect elevated benzene concentrations when directly downwind of the ITC facility.

ITC continues to spray foam within the secondary containment area of the tank farm for approximately 20 minutes every one to two hours.

Starting at 8:45 AM, EPA performs air monitoring with the ASPECT aircraft above and downwind of the ITC tank farm with no detections.

A Natural Resource Trustee representative for the TCEQ visits the site. The TCEQ, GLO, and TPWD will be conducting a Natural Resource Damage Assessment (NRDA) on state-entrusted resources.

ITC contractor, Cardno, conducts a flyover to assess the status of material in Tucker Bayou, HSC, and surrounding areas. TCEQ and GLO staff participate.

As of this date, the USCG has recovered approximately 24,364 barrels of material from on-water operations. ITC reports that approximately 35,724 barrels of material from the tank farm have been recovered.

Surface water quality monitoring continues to be conducted in northern Galveston Bay, as well as shoreline sampling on Galveston Island.

**Thursday, March 28, 2019**

ITC reports that, as of 8:24 AM, pumping operations to remove product from multiple tanks are complete.



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The TCEQ continues conducting air sampling in and around the impacted area with both handheld monitors and with the GC monitoring van. Periodic elevated benzene concentrations are measured in short durations with measurements returning to low ppb levels.

From approximately 8:30 AM to 4:30 PM, EPA's TAGA unit conducts monitoring downwind of the facility and does not detect benzene.

At 9:00 AM, EPA's ASPECT flies over the tank farm and downwind of the facility. No significant readings are detected.

As of 4:58 PM, Harris County Office of Emergency Management downgrades the activation level of the Harris County EOC to Level III (Increased Readiness).

As of 6:00 PM, cleanup operations recover approximately 128 cubic yards of solid waste (PPE, debris, and contaminated booms) from the tank farm, which is being stored on site at ITC in a roll-off box.

At 10:00 PM, the Incident Commander for ITC approaches UC indicating concern that waste levels in the secondary containment are rising faster than they could be removed. ITC reports that it begins placing the waste into tank 60-1 rather than allowing further release into the ditch, Tucker Bayou, and/or the HSC.

In anticipation of forecasted precipitation over the next couple of days, UC develops plans for managing stormwater at the ITC Deer Park facility.

TCEQ staff continues to conduct surface water quality sampling.

**Friday, March 29, 2019**

Stationary monitors continue to detect elevated benzene concentrations in short durations with measurements quickly returning to low ppb levels. The Channelview monitor records a measurement of 129.98 ppb at 3:00 AM. In the next hour, measured concentrations are back down in the 3-4 pbb range. Benzene levels are in the low ppb range at all other downwind monitors.

Between 5:00 AM and 6:00 AM, the GC monitoring van measures benzene concentrations between 75 ppb and 125 ppb in the Lakeside Park Estates community of Channelview.

At approximately 2:00 PM, the EPA TAGA unit reports three (3) benzene readings of 0.75 ppm, 1.2 ppm, and 1.6 ppm, in excess of the UC industrial action level of 0.5 ppm, established as part of the Air Sampling Plan developed by CTEH. EPA START contractors measure benzene at 2.0 ppm in the Jacintoport area. EPA does not conduct ASPECT flights due to low cloud cover.

Teams of TCEQ regional investigators and TCEQ's contractor, NRC/SWS, conduct odor surveys and air monitoring using handheld instruments throughout the community. No air monitoring readings above the UC established action levels are detected and no odors related to the incident are detected.


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The TCEQ collects water samples at 17 locations. An additional four sites are sampled by an ITC contractor.

TCEQ discusses its comments on Revision 6 of the Waste Management Plan with the UC Environmental Group.

TCEQ submits its comments on the Water/Foam Sampling Plan to CTEH after EPA's review.

At 7:00 PM, Harris County Office of Emergency Management demobilizes the Harris County EOC.

The 6th Civil Support Team demobilizes. SWS personnel will serve as the TCEQ presence on the Air Monitoring Strike Teams.

As of this date, an estimated 263 TCEQ staff have been dedicated to responding to this incident.

**Saturday, March 30, 2019**

The Channelview CAMS continues to detect elevated benzene concentrations in short durations with measurements quickly returning to low ppb levels. At 10:00 PM and 11:00 PM on Friday, March 29, 2019 and at midnight, the following concentrations for benzene are recorded: 53.7, 129.8, and 16.8 ppb, respectively. The 1:00 AM reading falls to 0.51 ppb. Benzene levels are in the low ppb range at all other downwind CAMS.

The TCEQ GC monitoring van continues to monitor along De Zavalla Rd in the Lakeside Park Estates community of Channelview. Overnight readings are consistent with the benzene spikes at the Channelview CAMS.

At 12:10 AM, ITC starts pumping from the secondary containment to the wastewater treatment feed tanks 80-34 and 60-1. TCEQ re-emphasizes that ITC is to use these tanks for storage only and must ultimately dispose of the material properly as hazardous waste.

At 1:28 AM, VOPAK Terminals issues a shelter-in-place for their facility in response to an E-notification received regarding benzene measurements reported by CTEH between 0.5 ppm – 2.5 ppm. The shelter-in-place is lifted at approximately 11:40 am March 30, 2019.

As of 3:00 AM, ITC reports that content transfer operations at Tanks 80-07, 80-09, 80-10, 80-12, 80-13, 80-14, and 80-15 are complete. Transfer of liquids in Tank 80-11 continues.

The City of Pasadena activates its EOC at 1:17 PM due to a shift in wind direction.

The EPA TAGA unit conducts monitoring downwind of the site in the Deer Park and La Porte area until 4:30 PM. The TAGA unit does not detect any readings above the action levels. The EPA's ASPECT does not fly due to cloud coverage.

Teams of TCEQ regional investigators and TCEQ's contractor, NRC/SWS, conduct odor surveys and air monitoring using handheld instruments throughout the community. The TCEQ contractor records a 34.55 ppm benzene reading at 4:44 PM in Baytown. The Region requests the TCEQ contractor to return to the location to confirm the reading. Upon return


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to the location at 4:57 PM, the reading is 0 ppm. No other air monitoring readings above the UC action levels are detected.

Two air monitoring strike teams (one each for land and water) operate during the day until 6:00 PM. No elevated readings are reported during this time. A land strike team deploys at 7:00 PM and reports benzene at 1.25 ppm and total VOCs at 1.7 ppm at Independence Parkway at Andrews Logistics.

HCPCS reports that multiple shelters-in-place have been issued for facilities east and south of ITC. These facilities include Oxy Vinyls Battleground, VCM plants, Lyondell Basell, INEOS, Geo Specialty Chemicals, Nouryon Polymer Chemicals Battleground, and Braskem. The shelter-in-place notices were subsequently lifted for Oxy Vinyls Battleground, VCM, and Lyondell Basell.

Two regional surface water monitoring teams and the on-shore team are on standby but cannot be deployed because of wind conditions that make boating unsafe.

**Sunday, March 31, 2019**

Overnight and early morning, benzene measurements from downwind CAMS remain in the low ppb range with no significant benzene spikes recorded.

The TCEQ GC monitoring van relocates south of the ITC facility on Magnolia Lane. Periodic rain hampers consistent sampling; however, from 1:00 AM to 3:00 AM, several benzene spikes are measured from 43.0 ppb to 195.9 ppb. Around 4:00 AM the GC van relocates further south. Only one benzene measurement above the detection limit is recorded at this site (10.0 ppb at 5:00 AM).

As of 7:00 AM, ITC reports that transfer operations at Tanks 80-2 and 80-3 are complete.

At approximately 8:30 AM, the EPA TAGA unit begins monitoring downwind of the site and records a benzene concentration of 1 ppm at multiple intersections. The EPA also conducts aerial air monitoring with the ASPECT aircraft until 10:00 AM and has no detections.

Due to choppy conditions, water operations cannot be conducted. Air monitoring resources affiliated with those operations are re-directed to land.

HCPCS reports that numerous industrial facilities east and south of ITC have issued facility shelter-in-place notices throughout the day. HCPCS later reports that all shelter-in-place notices have been lifted.

**Monday, April 1, 2019**

Benzene measurements from downwind CAMS continue to remain in the low ppb range with no significant benzene spikes recorded.

At approximately 7:00 AM, UC provides an update on the volume of liquid wastes from the event being accumulated.


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At 11:00 AM, Commissioner Emily Lindley, Executive Director Toby Baker, Deputy Director Ramiro Garcia, Jr., and Critical Infrastructure Division Director Kelly Cook meet with Admiral Thomas of the Coast Guard and David Grey, Acting EPA Regional Administrator Region 6 at UC.

At approximately noon, the GC monitoring van relocated to Magnolia Ln. in Deer Park and consistently measured periodic benzene spikes throughout the afternoon with a peak of 242.3 ppb around 3:00 PM. Teams from TCEQ contractor, SWS, conduct odor surveys and air monitoring throughout the community, using handheld instruments and report no readings of benzene exceeding UC action levels.

The EPA TAGA unit monitors downwind of the site. EPA also conducts aerial air monitoring with the ASPECT aircraft. No exceedances are reported from these surveys.

Four sampling teams conduct water sampling at sampling sites established at ITC, in the HSC, and along the shore on the Gulf side of Galveston Island and Crystal Beach on the Bolivar peninsula.

Two Shoreline Cleanup and Assessment Technique (SCAT) teams and one RAT deploy during the day. SCAT observations confirmed observations identified from aerial reconnaissance.

**Tuesday, April 2, 2019**

The Harris County Fire Marshal's Office begins its fire investigation.

Benzene measurements at stationary CAMS continue to remain in the low ppb range.

At approximately 7:00 AM, UC provided an update on the volume of liquid wastes from the event being accumulated in tanks.

At 7:00 AM, UC reports that ITC has completed pumping of the contents of Tank 100-28 into the barge.

As of this date, a total of 169,942 bbl of contaminated water has reportedly been collected. Of this total, 72,703 bbl came from on-water operations and 97,239 bbl came from the tank farm area.

The GC van relocates near the Deer Park High School around 2:45am to monitor an area of reported odors. Benzene concentrations >100 ppb, with a peak of 127 ppb, were measured before decreasing to 6 ppb by 5:00am. The GC van continues monitoring within the Deer Park community and measures benzene levels averaging 15 ppb, with a max of 45.6 ppb. Air monitoring and water sampling activities continue throughout the day.


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## Attachment C – Roles and Responsibilities

TCEQ generally has jurisdiction over water quality, air quality, waste management and disposal, management of certain facility chemical information, and certain storage of most petroleum products. As the state agency responsible for these matters, TCEQ provides related support and advice to other agencies and local governments during an emergency response, during a subsequent clean-up, and upon request. All emergency response actions begin at the local level with state and federal assistance available upon request. The local response fits within a statewide response plan, which fits within a federal response plan.

### Federal Emergency Response Framework

The National Incident Management System (NIMS), organized by the Federal Emergency Management Agency (FEMA), is a comprehensive approach to emergency planning and incident management that "guides all levels of government, nongovernmental organizations, and the private sector to work together to … respond to and recover from incidents."[2] "[It] applies to all incidents, from traffic accidents to major disasters."[3] Under NIMS, incident staff (local authorities[4]) request resources based on incident priorities and objectives.[5] Unrequested resources "place an extra logistical and management burden on an already stressed system."[6]

The Clean Water Act of 1972 requires a National Contingency Plan (NCP) to respond to hazardous substance releases and oil spills, which addresses the environmental component of an incident. The NCP was expanded to cover releases at superfund sites and additional oil spill provisions in the Oil Pollution Act of 1990. The contingency planning scheme requires related plans at the state, regional, local, and facility levels.[7] These plans are intended to coordinate the response efforts of the different government agencies and private organizations. The US Coast Guard is the designated lead agency for planning and response in coastal zones and some major inland water bodies; the EPA is the designated lead for inland zones.[8]

These plans include a description of the area covered by the plan, including any special concerns; a description of the responsibilities of the different entities participating in the response; a list of resources, a list of local scientists with expertise in the environmental effects of spills of the types of oil in the area; a description of how the plan works with other

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[2] [ HYPERLINK "https://www.fema.gov/national-incident-management-system" ]; National Incident Management System at 1 (available at [ HYPERLINK "https://www.fema.gov/media-library-data/1508151197225-ced8c60378c3936adb92c1a3ee6f6564/FINAL_NIMS_2017.pdf" ]).
[3] [ HYPERLINK "https://www.fema.gov/national-incident-management-system" ]; National Incident Management System at 1.
[4] National Incident Management System at 19.
[5] National Incident Management System at 13.
[6] National Incident Management System at 14.
[7] https://www.epa.gov/emergency-response/national-oil-and-hazardous-substances-pollution-contingency-plan-ncp-overview
[8] https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/area-contingency-planning



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plans; and waste disposal options. The plan may include guidelines for sampling and managing waste.[9]

The current version of the Central Texas Coastal Area Contingency Plan was approved by the US Coast Guard in June 2018.[10] TCEQ is one of many state, federal, and local agencies and governments that are members of the Area Committee and serves as one of three Vice Chairmen of the committee's executive steering group.[11] The Chairman of the executive steering group is the Commander of the Houston-Galveston Sector of the US Coast Guard.[12]

This area plan is invoked by the administrator of the agency with jurisdictional responsibility for the incident. According to this plan "[a] basic premise of the [plan] is that incidents are generally handled at the lowest jurisdictional level possible. Police, fire, public health and medical, emergency management, and other personnel are responsible for incident management at the local level.[13] According to the area plan, the Texas GLO is the lead state agency for response to oil spills in coastal waters and the TCEQ is the lead agency for response to inland oil spills of crude oil and hazardous substance spills not under the jurisdiction of the Texas RRC, and spills of other substances that may cause pollution or adversely impact air quality.[14] The Texas RRC is the lead agency for response to spills of oil and gas production waste and discharges of crude oil and natural gas pipelines.[15] The Division of Emergency Management ensures that state resources are available for use by the lead agency.[16]

The state emergency management details the coordination of state agencies' response and resources in an emergency.

## State Emergency Response Framework

In Texas, the mayor of each municipal corporation and the county judge of each county are designated as the emergency management director for their respective jurisdictions. The mayor and county judge may each designate an emergency management coordinator who shall serve as an assistant to the presiding officer of the political subdivision for emergency management purposes when so designated.

In accordance with state laws and plans (i.e., Chapter 418 Government Code and the State of Texas Emergency Management Plan) and the National Incident Management System (NIMS),

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[9] [ HYPERLINK "https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/area-contingency-planning" ]
[10] Central Texas Area Contingency Plan at II (available at [ HYPERLINK "http://www.glo.texas.gov/ost/acp/houston/sectorhoustongalveston_acp.pdf" ])
[11] Central Texas Area Contingency Plan at 8-10 (available at http://www.glo.texas.gov/ost/acp/houston/sectorhoustongalveston_acp.pdf)
[12] Central Texas Area Contingency Plan at 8 (available at http://www.glo.texas.gov/ost/acp/houston/sectorhoustongalveston_acp.pdf)
[13] Central Texas Area Contingency Plan at 16 (available at http://www.glo.texas.gov/ost/acp/houston/sectorhoustongalveston_acp.pdf)
[14] Id. at 29-30
[15] Id. at 30.
[16] Id at 29.


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initial emergency response is generally the responsibility of local jurisdictions (city and county governments). Local emergency responders handle initial responses to emergency situations.

Local governments are part of the state unified command for emergency management. As the first-responders, these local governments have primary control over the response efforts and request supplemental state support when needed. Likewise, the state-level members of the unified command request federal support when needed. State, federal, and local representatives are all present together in command centers.

When a spill or release occurs, the first responsibility for notification and response lies with the regulated entity as required by the Texas Administrative Code:

> "If the discharge or spill creates an imminent health threat, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshal, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as appropriate). The responsible party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons. In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the imminent health threat."

30 TEX. ADMIN. CODE § 327.3(g).

Likewise, when a fire occurs, the first person to notice the fire should contact the local fire department and take the immediate measures detailed in a facility's emergency response plan.

> "As with all disasters, fire response begins at the local level. The local fire department fights the fire in accordance with local policy and procedures and should designate an Incident Commander (IC) to take control of the incident."
>
> If locally available resources are insufficient, the IC may request support from local mutual aid partners. The IC shares information with the Emergency Management Director (EMD) or County Emergency Management Coordinator (EMC), and together these partners coordinate the local response.
>
> Local jurisdictions can request additional assistance from Disaster District Committees (DDC) when they anticipate a depletion of resources, identify a gap in resources or exhaust resources.
>
> When incidents expand beyond the scope of local and local mutual aid response, the EMC or EMD may issue a request for regional assistance to the DDC. Upon verifying the request, the DDC contacts the State Operations Center to work on filling the request." [17]

The DDC is chaired by the Texas Department of Public Safety (DPS) which divides the state into 26 disaster districts following the Texas Highway Patrol (THP) district boundaries. Each disaster district is commanded by a THP Captain or Command Lieutenant, who serves as the

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[17] State of Texas Emergency Management Plan, Firefighting Annex (ESF-4).



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Disaster District Committee (DDC) Chair. The DDC Chair may mobilize state resources to support firefighting operations, including water tenders, bulldozers and other specialized machinery or personnel. Although referencing "disasters" the emergency management plan does not require a disaster declaration to be implemented.

## TCEQ's Role in Emergency Responses

Under the State's Emergency Management Plan, TCEQ's primary responsibility is as the State's lead agency for Emergency Support Function (ESF) No. 10, which addresses Hazardous Materials and Oil Spill Response included in the Oil and Hazardous Materials Response Annex of the State Emergency Management Plan (ESF 10 Annex was previously known as Annex Q). As the lead agency for ESF No. 10, TCEQ coordinates the spill response by determining which state agency has jurisdiction for the spill and by ensuring that appropriate spill response measures are being taken. The other state agencies with primary spill response jurisdiction in Texas include the General Land Office (GLO) and the Railroad Commission (RRC).

TCEQ's main responsibilities as primary agency under this Annex include:

- Determining jurisdiction for state-level measures necessary to monitor and document the situation and ensuring that those actions are being taken;
- Coordinating state-level assets and services which include synchronizing the most feasible recommendations to the designated direction and control authority for the mission;
- Identifying and coordinating staffing requirements appropriate to the emergency to include investigative assignments for the primary and support agencies;
- Processing requests for assistance from the Disaster District Committee (DDC) and/or State Emergency Response Commission (SERC) and assigning support staff which includes:
    - Assisting other agencies with data collection, documentation, and damage assessment in the disaster area(s) to include information on spill impacts and cleanup costs;
    - Assisting local officials in identifying and preparing emergency sites for waste and/or debris staging/disposal;
    - Assisting with grant funding preparation and developing priorities for state resource allocation;
    - Assisting, coordinating, and monitoring state and non-state funded remediation efforts;
- Obtaining and compiling documentation/information necessary for effective and efficient strategy management by TDEM and/or State Operation Center (SOC) staff; and
- Serving as a Natural Resource Trustee for assessment of natural resource damage(s) in Texas.


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When TCEQ, as part of the Unified Command, is notified or becomes aware of a spill or release, TCEQ or one of its partner agencies investigates the incident to determine the type and volume of material spilled, whether the spill presents a risk of harm to the public or to the environment, and whether appropriate pollution abatement and clean up measures are being taken.

In addition to its responsibilities under ESF No. 10, TCEQ also provides the support set out in the State of Texas Emergency Management Plan, Firefighting Annex (ESF-4), when requested.

These responsibilities include:

- Monitoring air quality in response to commercial or industrial fire when necessary;
- Assisting with the assessment of public drinking water/wastewater systems that may have been damaged by wildland fires;
- Assisting by providing subject matter expertise, guidance, and authorizations for temporary debris management sites and disposal of debris;
- Assisting with Household Hazardous Waste Collection events; and
- Assisting by providing subject matter expertise and guidance on the response, clean-up, and/or disposal of hazardous materials.[18]

TCEQ staff are embedded in local emergency operation centers (EOCs) and in the Unified Command. TCEQ staff regularly attend Local Emergency Planning Committee (LEPC) meetings. Required under the federal Emergency Planning and Community Right-to-Know Act (EPCRA), an LEPC is a voluntary organization that is established in an Emergency Planning District. These districts are designated by the State Emergency Response Commission (SERC).

**Other Entities' Roles in Emergency Response**

Just as TCEQ has its roles and responsibilities in emergency response, so do other state and federal agencies, local governments, non-governmental organizations, private companies and organizations, and regulated entities. Representatives of all these entities are embedded in local EOCs and work directly with the representatives of local first-responders also embedded.

As previously mentioned, the local government first-responders are emergency response professionals who are primarily responsible for responding to emergency situations. These professionals also determine when evacuation or sheltering-in-place is necessary. Local government representatives communicate that and other information related to the emergency to their citizens. Each local and interjurisdictional emergency management agency is required to prepare, keep current, and distribute to appropriate officials a local or interjurisdictional emergency management plan.

Most Texas counties have a single LEPC; however, some counties like Harris County have multiple LEPCs that serve individual cities or communities in that county. The LEPC membership usually includes:

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[18] State of Texas Emergency Management Plan, Firefighting Annex (ESF-4).



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· Elected state and local officials

· Police, fire, civil defense, and public health professionals

· Environment, transportation, and hospital officials

· Facility representatives

· Representatives from community groups and the media

**ITC Fire Incident Response**

TCEQ's response activities were an integrated part of the larger response and based on its relationship with other state and federal agencies. The Unified Command included, among others, representatives from the US EPA; the TCEQ; the Texas GLO; the Texas Department of State Health Services; the USCG; the Texas National Guard, 6th Civil Support Team; Harris County; City of Houston, City of Deer Park, ITC.

The Channel Industries Mutual Aid (CIMA) organization also participated in the response. This group combines fire-fighting, rescue, hazardous material handling and emergency medical capabilities of the refining and petrochemical industry in the Houston area and provides cooperative assistance and expertise for emergency response.

The response activities conducted by TCEQ under this Unified Command included:

- Air monitoring and sampling

  When TCEQ/Unified Command was notified or became aware of a possible environmental concern, TCEQ and EPA investigators monitored those areas with hand-held instruments, such as optical gas imaging cameras (OGIC), toxic vapor analyzers (TVAs), summa canisters, and MultiRAE Multi-Gas Monitors. These tools provided the most effective way to quickly identify sources of drifting plumes so that swift action could be taken to address the specific cause of these emissions. EPA's Trace Atmospheric Gas Analyzer (TAGA) mobile monitoring bus and Airborne Spectral Photometric Environmental Collection Technology (ASPECT) flights were deployed extensively in the impacted area, as were TCEQ air monitoring vans. The TCEQ vans require stationary readings, but their locations were frequently adjusted, based on wind direction.
- Surface water sampling
- Coordinating with EPA for access to TAGA and ASPECT assets.
- Evaluating public drinking water sample results
- Evaluating response activities in relation to environmental impacts
- Ensuring proper waste management
- Evaluating onsite wastewater treatment plant capabilities
- securing federal help from the EPA


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