Potential Questions and Answers for Congressional Testimony
Water Quality Division

1. What is the Deer Park Intercontinental Terminal?
   - In its NPDES permit, the facility is described as a bulk petroleum storage and chemical for-hire bulk terminal. The facility has had an NPDES permit since the early 1990s.

2. Does the facility have a current NPDES permit?
   - Yes. The current NPDES permit, TX0068349, is issued to Intercontinental Terminals Company on November 26, 2013, and expired on May 1, 2018. NPDES regulations allow for administrative continuance of an expired permit so long as an application is filed with the permitting authority 180-days prior to the permit expiration.

3. How does administrative continuance of this permit affect the facility?
   - ITC continues to operate under the current permit. Administrative continuance of the expired permit provides discharge coverage to be continued under the conditions of the permit but prevents revision of the current permit.

4. Who is the permitting authority for the NPDES permit?
   - The Texas Commission on Environmental Quality issued the permit (EPA. No. TX0068349, TPDES No. WQ0001984000) as the permitting authority for bulk petroleum and chemical terminal facilities. The TCEQ implements the EPA-authorized NPDES program since 1998, with EPA acting in its program oversight role.

5. Does the current NPDES permit authorize discharge of wastewater to surface water?
   - Yes, the facility discharges through 8 different outfalls, most to Tucker Bayou portion of the Houston Ship Channel (Tidal portion). The current permit was developed to control pollutants discharged from a centralized waste treatment facility and /or an organic chemical facility and to protect the receiving water quality in a tributary to the Tucker Bayou, the Tucker Bayou itself and the Houston Ship Channel.

6. What is the condition of the surface water receiving wastewater?
   - These receiving waters (in Texas Segment No. 1006) are listed as impaired for Chlordane, Dieldrin, Heptachlor epoxide, Dioxin and PCBs in edible fish tissue, as well as Mercury in water and toxicity from Hexachlorobutadiene and Mercury in sediment. A TMDL has been written to address a Nickel impairment.

7. Does the current NPDES permit authorize discharge of wastewater from Tank 50-4?
   - The currently permitted on-site treatment plant discharge to Outfall 002 includes limits for 36 pollutants as well as requires whole effluent toxicity testing. TCEQ is considering discharge limitations for 223 pollutants and whole effluent toxicity testing requirements for tank water routed thorough the waste treatment plant prior to discharge through Outfall 002 into the Tucker Bayou portion of the Houston Ship Channel. EPA, in its oversight role, will consider the appropriateness of this action should TCEQ decide to reissue the permit with these conditions.

8. Are there Drinking Water Intakes in/downstream of the impacted area? (Harris co drinking water source?)
   - No, the water from the bayou is not used as a public water supply source. The water system's Eastside Treatment Plant receives its water from a reservoir which is pumped in from the Trinity River.

Air Quality Division

1. Did anyone “model” the plume from this incident? How was this information provided to local officials, as well as the community?
   - The EPA Region Air Program did not perform any ambient air modeling related to the incidents.
   - However, the Interagency Modeling and Atmospheric Assessment Center (IMAAC) did run plume models that were provided to the Unified Command to assist in protective action decisions.
   - The National Weather Service also provided a model to the public.

2. What did Stationary Air Monitoring stations show for Air Quality?
   - Using the publicly-available, hourly Air Now ambient air data for particulate matter less than 2.5 micrometers (PM2.5), EPA did not see any unusual anomaly in the data when compared to routine variations seen in PM2.5 data from the prior month. The combined Ozone and PM2.5 Air Now AQI maps for the Houston area provided to the public during the time frame were ‘Good’ with some indications of ‘Moderate’ air quality. A Moderate AQI indicator means air quality is acceptable, however, for some pollutants there may be a moderate health concern for a very small number of people.

3. Did EPA do any air monitoring associated with the ITC response?
   - The EPA Region 6 Air Program did not perform any regulatory ambient air monitoring associated with the incidents.
   - However, the Emergency Response Program did conduct air monitoring, as well as other federal, state, local entities, and ITC.

Inspection/Enforcement History
Applicable to both ITC & KMCO

1. What regulatory requirements apply to each of these facilities, and more specifically, these accidents?
   - Both of these facilities have water, air, and waste permits issued by TCEQ that outline all of their federal and state environmental requirements. TCEQ has delegation for most of the environmental regulations and therefore has primacy for evaluating compliance. TCEQ has not requested delegation for the RMP Program so EPA is the lead agency. Both agencies have conducted inspections in the past to evaluate compliance at these facilities.
   - *ITC:* ITC is categorized as a major source of air emissions and is required by the Clean Air Act to have a Title V permit authorizing routing emissions. This permit requires ITC to regularly report deviations from their permit conditions and to annually report non-compliance with the permit. All Title V reports are certified as truthful and accurate by a Responsible Official from the company.
   - ITC is permitted to emit approximately 307 tons per year (tpy) sitewide.
   - Specifically, ITC grouped their tank emissions under a single emissions cap limiting VOC emissions from tanks to 159.2 tons per year.
   - For 2017, ITC reported sitewide VOC emissions of 173.5 tons which includes 57 tons of hazardous air pollutants (HAPs). Of the total VOC emissions reported, 0.4 tons were reported as unauthorized emissions, and the remainder were reported as normal operations.
   - Applicable regulations define specific tank controls and operational requirements depending upon the age of the tank, the vapor pressure of the material stored, and the size of each tank. The fifteen 80,000-barrel tanks involved in the fire are regulated by older federal regulations that have limited requirements to ensure that installed controls are working as designed. Newer regulations require facilities to regularly inspect the various components of the tanks, and if defects are noted, to repair and report the findings. One of the fifteen tanks is subject to newer federal requirements based upon the material stored in the tank.
   - TCEQ's Air Permit No. 1078 requires the facility to comply with the more stringent federal regulations for all fifteen tanks in Special Condition 1 of the permit.
   - Initial evaluation of the tanks involved in the fire indicates that the tanks were not storing RMP-covered chemicals nor were they part of an RMP covered process, thus, were not subject to RMP requirements.
   - ITC also has a minor NPDES permit and a RCRA permit.
   - *KMCO:* KMCO is categorized as a major source of air emissions and is required by the Clean Air Act to have a Title V permit authorizing routing emissions. This permit requires KMCO to regularly report deviations from their permit conditions and to annually report non-compliance with the permit. All Title V reports are certified as truthful and accurate by a Responsible Official from the company
   - For 2017, KMCO reported sitewide VOC emissions of 24.6 tons which includes 0.6 tons of hazardous air pollutants (HAPs). Of the total VOC emissions reported, 4.1 tons were reported as unauthorized emissions, and the remainder were reported as normal operations.
   - Applicable regulations define specific tank controls and operational requirements depending upon the vapor pressure of the material stored and the size and age of each tank. KMCO permitted their tank emissions under multiple emissions caps limiting their VOC emission rate to 97.83 pounds per hour for each of these individual caps. Long-term rates (such as tons per year) are unavailable at this time. In response to the fire, KMCO submitted a notification to the state that reported potentially unauthorized emissions from several reactor areas: EEP, K7, K8, and K9. Each reactor is separately permitted to emit VOCs of 7.53 pounds per hour.
   - The process unit involved in the explosion stored isobutylene and was not covered under RMP.
   - KMCO also has a minor NPDES permit and a RCRA permit.

2. When was the last time that EPA inspected the facility? The State?
   - *ITC:* EPA conducted a Clean Air Act (CAA) 112(r) Risk Management Plan (RMP) onsite inspection on November 26, 2016 and an offsite inspection on February 16, 2017.
   - The state conducted a CWA investigation on 7/26/2018 to determine compliance with applicable permit requirements and regulations. Based on the findings of the investigation, a general compliance letter was issued.
   - The state conducted a Clean Air Act Annual Compliance Certification review on August 17, 2018.
   - *KMCO:* EPA conducted a Clean Air Act (CAA) 112(r) Risk Management Plan (RMP) inspection on January 28, 2015.
   - The State conducted a Clean Water Act (CWA) investigation on February 5, 2019 to determine compliance with applicable permit requirements and regulations.

3. How many inspections has EPA conducted at the facility? The State?
   - *ITC*: EPA has conducted 4 CAA inspections at the facility in the last 5 years.
   - TCEQ has conducted 12 Air and 1 RCRA inspections at the facility in the last 5 years.
   - *KMCO:* EPA has conducted one CAA inspection at the facility within the past five years.
   - The state has conducted 12 inspections at the facility within the past five years.

4. Has EPA taken any enforcement actions at the facility? If so, please provide details on those actions.
   - *ITC:* EPA Region 6 RMP Inspection occurred at the facility on June 4, 2014. This inspection resulted in the issuance of an Expedited Settlement Agreement with the facility on February 12, 2015. At the time of the inspection, the following violations were noted:
     a. Facility only considered one alternative release scenarios, instead of all of the listed scenarios.
     b. Facility did not retain the documentation for the worst-case scenario which should include a description of the vessel or pipeline and substance selected, assumptions and parameters uses, the rationale for selection, and anticipated effect of the administrative controls and passive mitigation on the release quantity and rate.
     c. Facility did not use the most recent census data for the population affected.
     d. Facility did not establish a system to promptly address the team's findings and recommendations from the process hazard analysis, since there was no process to show its implementation.
   - The terms of the Expedited Settlement Agreement required the facility to pay a penalty of $3,300 and certify that the Respondent has corrected the violations alleged.
   - An EPA CWA Administrative Order was issued on 3/23/2017 (06-2017-1742) to resolve cyanide exceedances. The Administrative Order is closed and facility is currently in compliance with cyanide permit limits.
   - *KMCO:* On January 28, 2015, an authorized representative of the EPA conducted a compliance inspection of the facility to determine compliance with the RMP regulations. This inspection resulted in the issuance of an Expedited Settlement Agreement with the facility on November 2, 2015 for $2,700.
   - KMCO failed to:
     a. Certify annually that there operating procedures are current and accurate (40 C.F.R. 68.69(c)) ($1200.00).
     b. Certify that they evaluated compliance with the RMP regulations at least every three years to verify that procedures and practices developed under the RMP regulations are adequate and are being followed (40 C.F.R. 68.79(a)). ($1200.00)
     c. Retain its two most recent compliance audit reports (40 C.F.R. 68.79(e)). ($300).
     d. KMCO plant has no EPA CWA enforcement over the past 5 years.

5. TCEQ and Harris County have filed enforcement actions against the facility(ies) after the incident. Does EPA have plans to open their own investigations or issue their own enforcement actions?
   - EPA will do an initial RMP investigation at both facilities and determine next steps based upon the information received. We have offered our assistance to TCEQ on their CAA investigations.

6. EPA records indicate that the facility has been out of compliance for 36 out of the previous 48 months. Please provide details on this noncompliance.
   - *ITC:* ECHO shows ITC being out of compliance for Air 4 out of 12 qtrs and for CWA 6 out of 12 qtrs. There were no significant violations. For Air, the noncompliance refers to failed TCEQ stack tests and deviations reported to TCEQ in their Title V Annual Compliance Certifications.
   - *KMCO:* KMCO reported deviations in the Title V air permits and failed several State (TCEQ) stack tests. None of these were considered significant violations.

7. What chemicals are stored at the facility?
   - *ITC:* The following toxic chemical is stored at the facility, are RMP regulated, and exceed the threshold quantity as designated in the RMP regulations
     a. Vinyl acetate monomer [Acetic acid ethenyl ester], Threshold Quantity = 15,000 lbs
   - The following flammable chemicals are stored at the facility, are RMP regulated, and exceeds the threshold quantity as designated in the RMP regulations.
     a. 1,3-Pentadiene, Threshold Quantity = 10,000 lbs
     b. 1-Butene, Threshold Quantity = 10,000 lbs
     c. 1,3-Butadiene, Threshold Quantity = 10,000 lbs
     d. Isoprene [1,3-Butadiene, 2-methyl-], Threshold Quantity = 10,000 lbs
   - *KMCO:* The following toxic chemicals are stored at the facility, are RMP regulated, and exceed the threshold quantity as designated in the RMP regulations.
     a. Ethylene Oxide, Threshold Quantity = 10,000 lbs
     b. Sulfur Dioxide (anhydrous), Threshold Quantity = 5,000 lbs
     c. Formaldehyde, Threshold Quantity = 15,000 lbs
     d. Ammonia, Threshold Quantity = 10,000 lbs
     e. Propylene Oxide, Threshold Quantity – 10,000 lbs
   - The following flammable chemical is stored at the facility, are RMP regulated, and exceeds the threshold quantity as designated in the RMP regulations.
     a. Ethyl Chloride, Threshold Quantity = 10,000 lbs
   - The following chemicals are stored at the facility, but are not regulated under RMP:
     a. Organic compound (toxic chemical, exact chemical make-up is not stated in the RMP submitted by the facility to EPA)
     b. Isobutylene (flammable chemical)
   - The Tier II forms filed under Section 312 of EPCRA indicate many more hazardous chemicals stored above the regulatory thresholds
     a. *ITC*: Approximately 55 hazardous chemicals above the threshold amounts
     b. *KMCO:* Approximately 75 hazardous chemicals above the threshold amounts

8. What chemicals were released during the fire and or/explosion?
   - *ITC:* An initial STEERS report indicates the following chemicals were released during the fire:
     a. Carbon Monoxide
     b. Lube Oil
     c. NOx
     d. Opacity
     e. SO2,
     f. Toluene
     g. Gasoline Blend Stock
     h. Xylene (initial steers).

    i. When fire reignited, it is believed that Pygas caught fire
- *KMCO*: A fire was ignited in their Reaction 2 area due to a leak in piping and resulted in an emission event. The exact cause of the incident has yet to be determined at this time.
    a. Ethyl13-ethoxypropionate, estimated quantity release = 100 lbs
    b. Isobutylene, estimated quantity release = 100 lbs
    c. Maleic Anhydride, estimated quantity release = 100 lbs
    d. Toluene, estimated quantity release = 100 lbs
    e. VOC, estimated quantity release = 100 lbs

9. What are the facilities' obligations under the RMP requirements under CAA 112R?
    - The facility must:
        a. Submit a single RMP, that includes a registration that reflects all covered processes.
        b. Prepare a worst-case release scenario analysis and complete the five-year accident history
        c. Develop and implement a management system
        d. Conduct a hazard assessment
        e. Implement the prevention requirements of 40 C.F.R 68.65 - § 68.87
        f. Develop and implement an emergency response program
        g. Submit the data elements from 40 C.F.R. § 68.175 in their RMP

10. Does EPA have a criminal investigative program?
    - Yes. EPA's criminal enforcement program focuses on criminal conduct that threatens people's health and the environment. It was established in 1982 and granted full law enforcement authority by congress in 1988. We enforce the nations laws by investigating cases, collecting evidence, conducting forensic analyses and providing legal guidance to assist with prosecutions. https://www.epa.gov/enforcement/criminal-enforcement.

11. Does EPA CID have a current criminal investigation open on either ITC or KMCO?
    - EPA does not confirm or deny the existence of ongoing investigations.

12. Is there any past history of criminal investigation by EPA CID involving either of these facilities?
    - ITC: No.
    - KMCO: Yes. From in or about August 2008, and continuing at least until in or about June 2012, in the Houston Division of the Southern District of Texas, defendants (3) CROSBY LP, (formerly known as KMCO LP) and (4) RAMSEY PROPERTIES LP (formerly known KMCO Properties LP), acting through their agents and employees on behalf and for the benefit of the defendants, did knowingly violate a requirement of FOP No. 0-1441, issued under Title V of the CAA, in that the defendants failed to perform any leak detection monitoring of facility processing components for fugitive VOC emissions. In violation of 42 U.S.C. § 7413(c)(l). The defendants (3) CROSBY LP and (4) RAMSEY PROPETIES LP agreed to plead guilty to Count Two of the Information charging them with a knowing violation of Title V of the Clean Air Act ("CAA"), 42 U.S.C. 7413(c)(l), for failing to perform leak detecting monitoring of facility processing components for fugitive volatile organic compounds. The outcome: a criminal fine in the amount of $3,300,000, (b) a total mandatory special assessment of $1,050, and (c) a community service payment of $200,000. The defendants were jointly and severally liable for the payment of the criminal fine and the community service payment.

Regulatory Authority
Applicable to both ITC & KMCO

1. If EPA had developed / finalized a spill prevention program for hazardous substances with prevention elements, as required by the Clean Water Act, would those regulations have helped prevent this incident from occurring?
   - Since a prevention program has not been finalized, it would be premature to speculate on how such a program might affect a specific facility.

2. Would the finalized enhanced prevention provisions of the Risk Management Program under the Clean Air Act with the enhanced prevention provisions have helped prevent this incident from occurring?
   - The only significant change from these amendments is that ITC would be required annually to coordinate its response plan with the local emergency planning and response organizations.
   - The tank farm involved in the ITC fire does not include RMP covered chemicals, so therefore not subject to the enhanced prevention provisions.

3. Does EPA have regulatory authority to investigate the cause of this accident? Under which statute / regulation?
   - The Chemical Safety Board (CSB) conducts the investigation into the cause of the accident, along with the companies themselves. EPA does have the authority to use the findings of the root cause of the accident in compliance evaluations for the regulations to which they are subject: e.g., CAA Section 112(r)(1), the General Duty Clause (GDC); CAA Section 112(r)(7), the Risk Management Program, and other NSPS and NESHAP regulations.
   - In addition, EPA has authority to investigate the accident under CERCLA 103, the SPCC program under the CWA, and 304 of EPCRA for potential violations of these regulatory provisions.

4. Does EPA regulate what can be in the above ground storage tanks?
   - No, but the contents of the tanks will affect if/how EPA regulates the tank or facility.
   - EPA has the authority if the material is a hazardous waste under RCRA, but not product.

5. Does EPA have the regulatory authority to have AST safely sited in the residential communities?
   - No. EPA has authority to regulate Above Ground Storage Tanks if/when they contain regulated materials. EPA regulations address preventing & preparing for spills/releases.

6. What federal agencies would have jurisdiction of public safety issues at the ITC facility. EPA, OSHA, USCG, DHS?
   - All four of the agencies listed have statutes and regulations that address public, employee, and environmental concerns.

7. The tanks at ITC are 40 years old; how do we bring tanks up to code?
   - If an existing regulation under EPA authority references specific industry standards, then the facility is required to comply with those standards.

8. Is EPA participating in the Investigation?
   - EPA does not have the authority to participate in OSHA or CSB investigations; however we do coordinate our response with both agencies as appropriate.

9. What is the purpose of the Tier II form/report, and how is it designed to help local communities plan for and respond to a chemical incident?

- Tier II information provides local officials with information on chemicals stored at the facility, including storage locations, container types, ranges of inventory, and hazards, as well as emergency contact information. This information can be valuable to emergency responders during an incident as well as during pre-planning for emergencies by those agencies.

10. Who gets the Tier II reports and what are the consequences of it not being submitted?
    - Tier II reports are required by Section 312 of EPCRA to be submitted to the State, local emergency planning committee, and local fire department. A violation of EPCRA occurs if a facility does not submit the reports as required; additionally this may prevent local officials from having important information for planning and response.

11. Who is responsible for ensuring the Tier II form is accurate, current, and provided to those entities required by law to receive it?
    - Both EPA and TCEQ have authority to ensure Tier II forms are appropriately filed with the State, LEPC, and fire department; EPA under EPCRA, TCEQ under their own state statute.

12. How does EPA ensure that local communities use the Tier II information in emergency planning, training, and drills/exercises?
    - EPA and the State of Texas have conducted numerous workshops throughout the State to assist LEPCs in understanding how to properly use this information.

13. How do communities store the Tier II information and ensure it is available to emergency responders during an incident?
    - Each LEPC and fire department has the ability to choose how to manage this information. Most do it electronically using free available software provided by EPA.

14. What are the guidelines that require firewalls and distance requirements?
    - Industry standards, as well as NFPA or Local Fire Codes have requirements for fire prevention.

15. What environmental regulations apply to these facilities?
    - *ITC:* There are four main prevention & response programs that apply to the ITC Facility:
        a. The Spill Prevention Control and Countermeasure (SPCC) program under the Clean Water Act as amended by the Oil Pollution Act
        b. The Facility Response Plan (FRP) program under the Clean Water Act; and
        c. The Risk Management Plan (RMP) program under the Clean Air Act
        d. The Emergency Planning and Community Right-to-Know Act (EPCRA)
            - Other Environmental Regulations include:
        e. The Clean Air Act (CAA) -Title V
        f. The Clean Water Act (CWA) - National Pollutant Discharge Elimination System (NPDES)
        g. Resource Conservation and Recovery Act (RCRA) - Large Quantity Generator (LQG), facility is not an active, permitted treatment/storage/disposal (TSD) but has 6 closed units.
    - *KMCO:*
        a. The Spill Prevention Control and Countermeasure (SPCC) program under the Clean Water Act as amended by the Oil Pollution Act
        b. The Risk Management Plan (RMP) program under the Clean Air Act
        c. The Emergency Planning and Community Right-to-Know Act (EPCRA)
            - Other Environmental Regulations include:
        d. The Clean Air Act (CAA) -Title V
        e. The Clean Water Act (CWA) - National Pollutant Discharge Elimination System (NPDES)
        f. Resource Conservation and Recovery Act (RCRA)

Incident Specific or Operational
Applicable to ITC

1. When did EPA join into the Unified Command of the response as part of the Incident Command?
   - EPA responded under our own response authorities on March 17 and quickly became part of the existing response structure.

2. Who made the decision to extinguish the fire in the tank farm versus letting it burn out?
   a. What were the factors that led to that decision?
   b. Was EPA part of that decision-making process?
   - ITC as well as CIMA and other response organizations immediately began fire-fighting efforts. Concern for spread of the fire to other tank farms influenced decisions. Local response organizations and ITC were responsible for those decisions.

3. What types of air monitoring support did EPA provide during this incident?
   - EPA used both their ASPECT and TAGA platforms to help with the monitoring. What do these platforms monitor for? Do they both monitor for benzene, the primary chemical of concern for the communities?
   - EPA uses several platforms to conduct air monitoring, including TAGA, ASPECT, and hand-held monitoring, for a variety of substances that may be released. ASPECT can monitor for several dozen substances, as well as providing aerial and infrared imagery for releases or threats of releases. TAGA is a land-based mobile lab which monitors for several substances (specifically BTEX) throughout the communities during the response.

4. How long will EPA continue air monitoring at this incident?
   - EPA will continue air monitoring until it is determined there are no longer releases or threats of releases from the tank farm and the affected waterways.

5. What Products remain in the Impacted Tanks and what risks do they still pose?
   - The 15 tanks contained several products, including pyrolysis gasoline, crude gas feed stock, base oil, toluene, and xylene. Many of the products were consumed in the fire. Cleanup and removal continue for the remaining product in the tank farm. Releases of hazardous substances from the tanks are diminishing as product is removed and the tanks are cleaned.

6. How are the product and other chemicals being disposed of properly?
   - ITC is required to follow all applicable state and federal laws concerning hazardous waste collection, sampling, and disposal. TCEQ, as delegated authority for RCRA, will be overseeing the remediation of the tank farm and disposal of wastes.

7. Why was dike wall breached?
   - This part of the investigation will be conducted by those entities that have authority.

8. Who is responsible for remediating pollutants into Tucker Bayou?
   - ITC is responsible for remediating all impacts from this incident. EPA issued an Administrative Order on March 23 detailing ITC's responsibilities for response and remediation of this incident.

9. Since ITC is responsible for cleaning up Tucker Bayou, how do you accelerate the cleanup?
   - ITC has the responsibility to ensure sufficient resources are in place to conduct the response and cleanup in a safe manner. EPA, TCEQ, and local officials have the authority to oversee this response, and direct ITC to correct any observed deficiencies.

10. How will ITC pay for clean up?
    - ITC, as the responsible party, is required to provide sufficient funding for resources to address all aspects of the response and cleanup. The federal government will seek recovery of costs associated with oversight of the response.

11. How many ships are waiting in the port?
    - Vessel traffic management is the responsibility of the USCG Captain of the Port, as well as the Houston Port Authority. The Port and Channel have been opened for traffic.

12. What is economic impact to the Port of Houston due to the ITC fire?
    - EPA will not have access to this type of information, nor does EPA have authority to gather this type of information.

13. What regulations / programs does EPA oversee for contingency planning for the facility? For the community?
    - Several statutes/regulations have requirements for contingency planning by the facility, such as SPCC, EPCRA, RMP, and RCRA. EPA and/or TCEQ have responsibility to review those plans to ensure compliance with existing authorities.

14. When was the last time EPA inspected / reviewed the facility's contingency plan?
    - The EPA Region 6 RMP program conducted an inspection in June, 2014, which included a review of the contingency plan developed by ITC.

15. How does EPA ensure the facility participates in local community planning / drills /exercises as required under the various contingency plan requirements?
    - EPA determines compliance with applicable provisions for facility participation during regulatory inspections under existing statutes/regulations.

16. How did the Fire Start?
    - The cause of the fire will be determined by the Harris County Fire Marshal and the Chemical Safety Board (CSB).

Environmental Testing & Results

1. Benzene: does it dissipate into the air?
   - From the CDC Website: Benzene is a chemical that is a colorless or light-yellow liquid at room temperature. It has a sweet odor and is highly flammable.
   - Benzene evaporates into the air very quickly. Its vapor is heavier than air and may sink into low-lying areas.
   - Benzene dissolves only slightly in water and will float on top of water.

2. What is the health risk of benzene?
   - From the CDC Website: Immediate signs and symptoms of exposure to benzene
   - People who breathe in high levels of benzene may develop the following signs and symptoms within minutes to several hours:
     - Drowsiness, Dizziness, Rapid or irregular heartbeat, Headaches, Tremors, Confusion, Unconsciousness & Death (at very high levels)
   - Long-term health effects of exposure to benzene -
     - The major effect of benzene from long-term exposure is linked to blood. (Long-term exposure means exposure over one year). Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells (anemia). It can cause excessive bleeding and can affect the immune system, increasing the chance for infection.
     - Some women who breathed high levels of benzene for many months had irregular menstrual periods and a decrease in the size of their ovaries. It is not known whether benzene exposure affects the developing fetus in pregnant women or fertility in men.
     - Animal studies have shown low birth weights, delayed bone formation, and bone marrow damage when pregnant animals breathed benzene.
   - The Department of Health and Human Services (DHHS) has determined that benzene causes cancer in humans. Long-term exposure to high levels of benzene in the air can cause leukemia, cancer of the blood-forming organs.

3. What is the level of benzene that requires shelter in place? (Harris co explained that threshold was low and would be used to give info to those who will be making decisions.)
   - Each community established their own "protective action level", which is the prerogative of those communities by Statute. Deer Park established the action level for Shelter in Place for their community; Harris County established the action level for the unincorporated areas, which included Channelview.

4. Is fish From the Houston Ship Channel Safe to Eat?
   - The Texas Department of State Health Services (DSHS) issued an advisory for consumption of fish [https://www.dshs.texas.gov/news/updates.shtm].

5. What recourse to people have if medical issues due to incident? –
   - Citizens who have any health concerns from the incident can call the U.S. Poison Control Center to discuss these concerns with a medical professional. For those who live in close proximity to the chemical terminal, the Harris County Health Department (HCPHD) recommends contact their healthcare provider or if more serious, call 911. If you a citizen does not have a healthcare provider, the Harris Health System's "Ask My Nurse" helpline (713-634-1110) remains open to help answer health questions. To find a healthcare provider close to you, visit: https://findahealthcenter.hrsa.gov/?display=map&zip=

Emergency Notification & Communicating with the Public

1. What are the notification procedures and requirements for regulated facilities in the event of an incident such as a fire or explosion?
   - Under Federal regulations (40 CFR 302, 40 CFR 355), a facility must report to federal (the National Response Center), state (State Emergency Response Commission), and local (Local Emergency Planning Committee) officials if a release of a hazardous substance exceeds certain levels (the reportable quantity). The regulations do not require reporting for a fire or explosion.

2. How does the community near the ITC facility know the risks and hazards associated with the facility?
   - The community can attend LEPC meetings to discuss specific facility hazards with local officials; they can review permits and enforcement actions from state and local governments; and they can review the Tier II chemical inventory forms and Risk Management Program (RMP) submittals. In addition, citizens can participate in the Community Advisory Councils (CACs) within their community, which brings together industry, local, and community representatives. ITC is a member of the CAC for Deer Park.

3. How does your agency coordinate with other federal partners and local response agencies during the response?
   - When EPA responds to an incident such as the ITC fire, we will integrate into the existing unified command as one of the incident commanders, along with state, local, and responsible party officials. All decisions made during the response, as well as planning and tactics, are agreed upon by that unified command. All response actions are taken in accordance with the National Incident Management System (NIMS), as well being consistent with the National Contingency Plan (40 CFR 300).

4. Who is responsible for ordering a shelter in place? – local
   - Initial emergency response actions are generally the responsibility of local authorities, such as city and county governments. Local emergency responders have authority to handle initial responses to emergency situations. There are many Federal and Industry guidance documents out that provide guidance on evacuations based on chemical concentrations or types of chemicals involved in an emergency.
   - The Department of Transportation's Emergency Response Guidebook (ERG) is widely adopted in the Emergency Response and Public Safety communities.
   - Also, EPA has sponsored software, such as CAMEO (Computer-Aided Management of Emergency Operations), and ALOHA (Which is the hazard modeling program for the CAMEO® software suite, which is used widely to plan for and respond to chemical emergencies).
   - State and local authorities may also use the Interagency Modeling and Atmospheric Assessment Center (IMAAC) to develop plume models to support their decisions.
   - Additionally, there are many publications from FEMA, American Red Cross, and other entities on evacuation / shelter in place that support local emergency management.

5. How was the public kept informed of what was happening?
   - EPA Region 6 maintained a Website, response.epa.gov/ITCTankFire, with publicly available information, as well as issuing News Releases about ongoing operations and conditions.
   - Additionally, the Office of Communities, Tribes and Environmental Assessments (OCTEA) maintains a list of environmental justice community leaders. Daily, OCTEA sends the ITC Fire Updates to community leaders who are impacted or concerned about the fire. Feedback from community leaders has indicated that the reports are very useful and that they are sharing the information with their community members.

- TCEQ also maintained a website to keep citizens informed on progress at the site, as well as concerns sent to TCEQ, https://www.tceq.texas.gov/response/itc-terminal-fire-update

6. How can local first responders be prepared to respond to incidents like this; if the facility delays in calling 911 and they are not sure which chemical(s) are involved in the incident?
   - Local first responders in the Houston Ship Channel train and exercise (drill) with the industry on a regular basis.
   - The Channel Industries Mutual Aid (CIMA) is considered one of the best, if not the best, emergency response organizations in the country. Fire departments have chemical information on all regulated facilities in Harris County, as well as conducting pre-planning with each facility.
   - All facilities subject to the Risk Management Program (including ITC) are required to coordinate their emergency response plan with local officials.
   - ITC notified 911 immediately upon knowing of the fire, as well as sending out an e-notify to all neighboring facilities and the communities.

7. Are there provisions in place to immediately notify fence line communities who may be impacted by releases before local response activities are initiated?
   - Under 40 CFR 303 and 40 CFR 355, as well as State regulations, facilities are required to notify local officials upon knowledge of a release. Local officials will then determine how to notify the community.
   - For this event, ITC also sent out an e-notify (email notification that is initiated by the facility) to all of the neighboring facilities, as well as posted a message on the Community Awareness and Emergency Response (CAER) line, which any citizen can call and get up to date information.

8. What actions are taken to ensure fence line communities receive and understand local response agencies directions regarding shelter-in-place?
   - Local communities are responsible under State and Federal statutes to have notification systems in place to provide citizens the information necessary to take appropriate protective actions. Local officials exercise these programs on a regular basis.

9. Who establishes the “protective action levels” for the facility, neighboring facilities, and the neighboring communities?
   - Each community established their own “protective action level”, which is the prerogative of those communities by Statute.
   - Deer Park established the action level for Shelter in Place for their community;
   - Harris County established the action level for the unincorporated areas, which included Channelview.
   - Neighboring facilities established their own “protective action levels” for taking action.

10. What were the established levels for the primary chemical of concern, benzene?
    - For Deer Park, it was 1.0 ppm for benzene; for the neighboring facilities it was .5 ppm. TCEQs Air Monitoring Comparison Value (AMCV) was .18 ppm for benzene (which was not used by facilities or communities for protective actions).

11. Were the protective action levels consistent for all communities and facilities?
    - No, each community and facility has the authority and latitude to establish their own levels.

12. Who makes the decision on the appropriate “protective action” (e.g. shelter in place, evacuation) for a community?
    - Initial emergency response actions are generally the responsibility of local authorities, such as city and county governments. Local emergency responders have authority to handle initial

responses to emergency situations. There are many Federal and Industry guidance documents out that provide guidance on evacuations based on chemical concentrations or types of chemicals involved in an emergency.

13. Does EPA make recommendations to local officials on these “protective actions”?
    - No. EPA provides information and data from our air monitoring, and we can provide local communities direction where to find appropriate protection action levels, such as Acute Exposure Guidelines (AEGL) and other governmental standards.