

# WHAT COMES FIRST A PLANT EXPLOSION OR POTUS?



# OBJECTIVES

- Identify different types of chemical storage facilities
- Identify regional response assets
- Pre-development of mass evacuation plans
- Coordination with Mutual Aid partners

# KMCO Incident Details

- April 2, 2019 Explosion felt at admin, first 911 call @ 10:51:29 Breaking the station gate, blocking in units
- Engine 81, M 61, Dist 6 Dist 61 initial response @ 10:52:01
- Dist 6 takes command with level 1 stage

Request Wind direction- 2 MPH SE

Request to stop UP Train – unanswered by railroad

Reports of missing person(s) unknown # at this time

Active fire visual from 1 mile staging 60 ft estimate

Crosby Fire make warm location report 2 critical patients @ 10:59:22

Request for Life Flight @ 11:04:11- 2 helicopters were summoned



# Plant is complex....

- It has a public road that runs through its center
- It has a major railroad that passes it several times daily
- It has a kindergarten within 1.1 miles
- It was initially a small storage facility built in 1975 and has increased to 8 distillation columns, 23 reactor systems, and has the capacity for 250 rail cars. It sits on 32 acres with on site storage for 20 million gallons of storage capacity currently.

# Prior Preparations by EMS

- Harris County ESD No. 5 attended local emergency planning committee (LEPC) with CIMA a legally mandated organization that is established in an Emergency Planning District designated by the State Emergency Response Commission (SERC)- Tier II assistance, grants, training and group collaborations.
- Prior responses made to the plant for prior incidence of spills etc.
- Interactions with Safety Managers in past at facility.
- Unfamiliar with current chemicals being stored at location. This is a common response to EMS prior to any interactions at the location.
- Best Practice- Include EMS in Pre-plan before real time events!!



## What did we find??

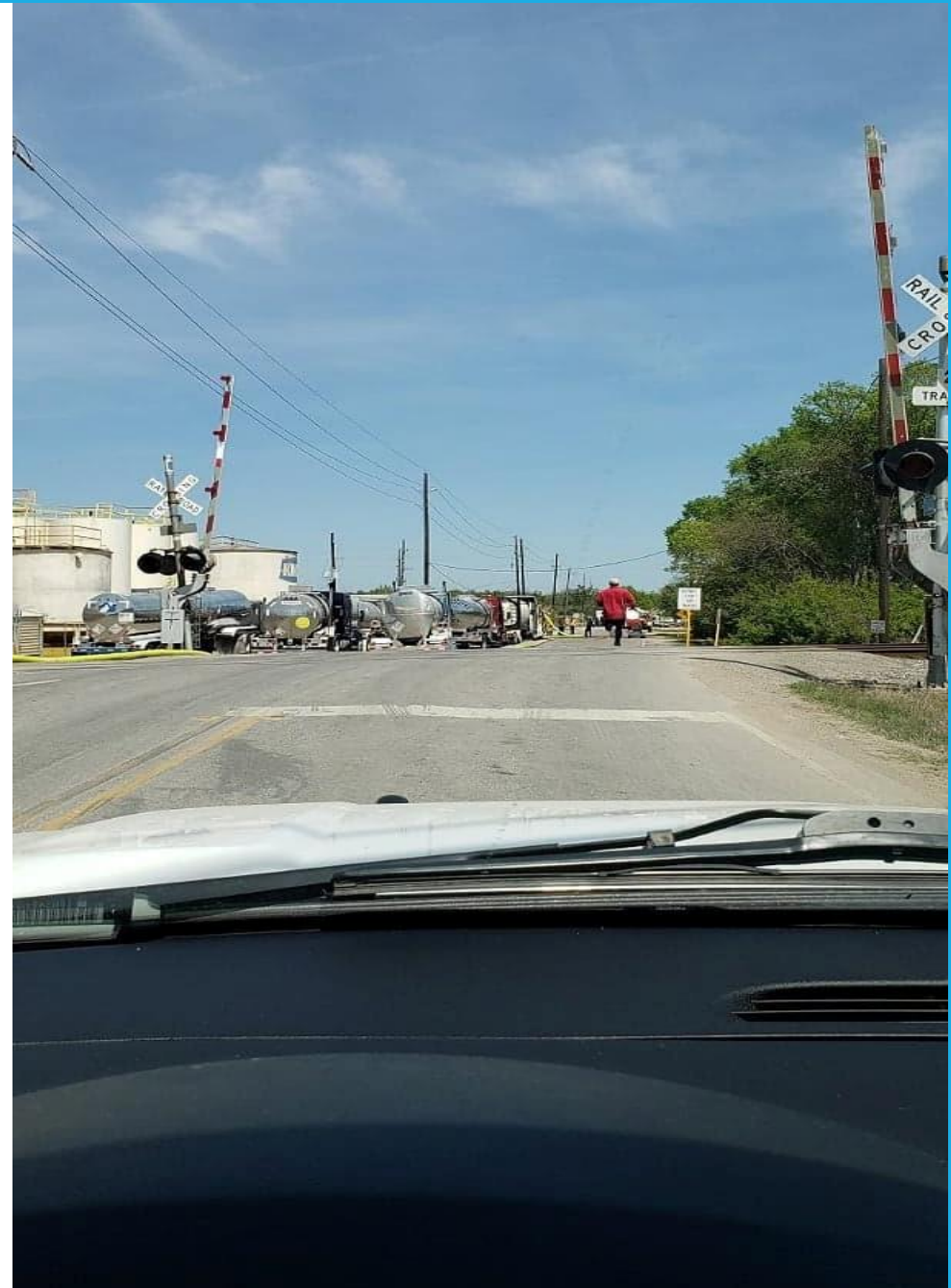
- A lot of fire....not a lot of information...and a lot of employees within the contaminated area.
- Some on ERTeams and some from the office staff searching for missing employees without protection!!!!

# Chemicals...

- Gasoline
- Toluene
- Xylene
- Ethylbenzene
- Benzene
- Hexane
- Cyclohexane
- Naphthalene
- Methyl ethylbenzene
- Ethanol
- Isobutylene






We also found...  
Multiple tankers with  
chemical stored within  
50 to 75 feet of the  
active fire.

Off duty employees  
and citizens arriving to  
assist.





# BLAST INJURIES

Blast Category	Cause of Injury	Injuries
 Primary	Direct effect from blast shockwave	<ul style="list-style-type: none"><li>• Shear &amp; stress forces on tissues</li><li>• Tympanic membrane rupture, blast lung, ocular injuries, concussion</li></ul>
 Secondary	Impact of fragments (from exploding device or environment)	<ul style="list-style-type: none"><li>• Penetrating trauma</li><li>• Amputations</li><li>• Lacerations</li></ul>
 Tertiary	Blast wave propels body into objects or large objects strike body	<ul style="list-style-type: none"><li>• Crush injuries</li><li>• Blunt trauma</li></ul>
 Quaternary	Environmental contamination from the device	<ul style="list-style-type: none"><li>• Burns, inhalation injury</li><li>• Exposure to toxic substances</li></ul>
 Quinary	Bodily absorption of device additives	<ul style="list-style-type: none"><li>• Hypermetabolic state</li></ul>

# Patient Presentation



# Decon Considerations??



# Airway complications??





# Considerations

- Scene Contamination
- Ambulance Contamination
- Personnel Contamination/Safety
- Did FRGs work??
- Consider contacting
- CHEMTREC- 1-800-262-8200
- Emergency Response Guides- Free HCFMO

# Responder Rehab



# Two types of treatment sectors began

**Sector One**-(Responders)- began having side effects from run off and needed treatment

**Sector Two**-(Employees/Citizens)- Side effects from inhalation during initial explosion and response.

\*\* A random chemist from CHEMTREC located a physician and developed a treatment of inhaled albuterol that worked instantly to reverse symptoms of elevated and irregular HR, headaches, dizziness and nausea.

We administered over 60 doses on scene.



Be prepared...but not initial priority



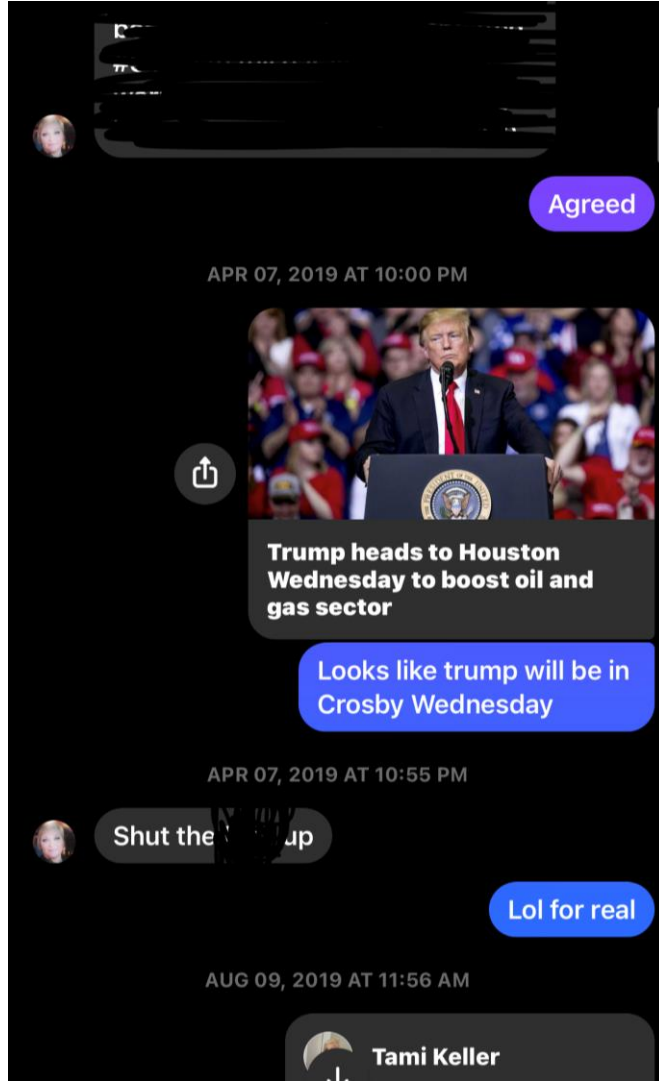


## Who is coming to Crosby???

- **Trump issues executive orders seeking to speed up oil and gas pipeline projects**
- Oil and gas companies have complained that protests and court cases have slowed construction of pipelines needed as U.S. fossil fuel production expands.
- BY STEVEN MUFSON AND TOLUSE OLORUNNIPA, [THE WASHINGTON POST](#) APRIL 10, 2019



# My classic reaction.....



The information from the White House will be limited.

My first notice the POTUS was coming was from Facebook.

Secret Service made first contact 36 hours prior to arrival for security reasons

Already knew everything about our agency

# 48 hours later the POTUS is coming

- We still had blast debris in our vehicles and equipment
- The Secret Service was in town unbeknownst to us was in town during the incident....and watched us!
- They gave very limited details on the Presidential route. Changed it 20 minutes before arrival.
- The POTUS has his own medical staff and ambulance that travels with him.
- School District closed. Six agencies came together to manage the crowd surge. A mix of supporters and protestors.

Prep for All hazards considered- Bombs, Shooting, Driving into crowds



# Summary

What are the take aways?

It takes a lot of people to pull both scenes off

Conduct routine meetings and determine if the location has a response team.

Know your resources and chemicals before a real time event. Incorporate your mutual aid departments so everyone knows their potential roles.

Select pre-assigned muster locations

Be mindful of decon debris and run-off

Call the SETRAC early, even if you don't utilize the resource the earlier the notice the more prepared.

Be prepared to have a plan B.



## Our Everything...His everything...

- [cgraves@hcesd5.org](mailto:cgraves@hcesd5.org)
- [ggonzalez@hcesd5.org](mailto:ggonzalez@hcesd5.org)