

# 11<sup>th</sup> Chemical Process Safety Sharing (CPSS)

## Topic: Safety Moment

Presenter Name: Sermsak Nuntapong  
Manager: Technical Safety and Environment  
Management (Act.)  
E-mail: [sermsak@thaioilgroup.com](mailto:sermsak@thaioilgroup.com)  
Company : Thai Oil Public Company Ltd.



# Safety Moment: FCC Unit Explosion and Asphalt Fire at Husky Superior Refinery, 2018



April 26, 2018, at ~9:58 a.m., an explosion and subsequent fire occurred at Husky Superior Refinery. The incident occurred during a planned turnaround event, with ~800-900 people on site. The fires were extinguished before midnight.



Safety VDO: Transient Hazards: Explosion at the Husky Superior Refinery  
Reference: U.S. Chemical Safety and Hazard Investigation Board (CSB)

As a result of the explosion and fire:

- The incident injured 36 workers
- Caused roughly \$550 million in property damage
- Released 39,000 pounds of flammable hydrocarbon vapor into the air
- Evacuated 2,507 residents based on the potential risk of a release of HF, which was stored and used at Refinery. Although the HF storage tank was not damaged, and no release of HF occurred
- A shelter-in-place and evacuation advisory at 8:00 p.m. and orders were lifted at 6:00 a.m. the next day

Safety issues:

- Transient Operation Safeguards
- Process Knowledge
- Process Safety Management Systems
- Industry Knowledge and Guidance
- Brittle Fracture During Extreme Events
- Emergency Preparedness





Thank you for your attention

