

## **Case Study 25:**

### **Kuraray America**

At 10:28 a.m. on Saturday, May 19, 2018, an ethylene release caught fire, injuring 23 workers at the Kuraray America, Inc. (Kuraray) ethylene and vinyl alcohol copolymer plant in Pasadena, Texas.

The incident occurred during a chemical reactor system startup following a scheduled maintenance shutdown (turnaround). High-pressure conditions developed inside the reactor and activated the reactor's emergency pressure-relief system, discharging flammable ethylene vapor—through horizontally aimed piping—into the ambient air in an area where a number of contractors were working.

These workers were performing various tasks that were not essential to the startup of the reactor, including welding, which likely ignited the ethylene vapor cloud, causing the fire.

Had Kuraray's emergency pressure-relief system discharged vapor from the reactor to a safe location, the flammable ethylene gas should not have harmed any workers.

#### *References:*

CSB: Investigation Report: Ethylene Release and Fire at Kuraray America, Inc. Eval Plant, December 16 2022