

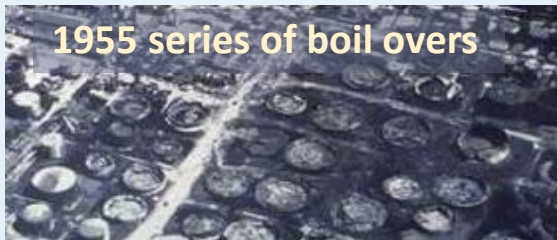
Tank Boil Over

EPSC Learning Sheet February 2020



What Happened:

During a full surface tank fire, a boil-over occurred when water below the flammable liquid was heated above its boiling point and suddenly vaporized



Aspects:

- During a full surface tank fire the liquid heats-up, that will heat the water layer in the tank in time. This water can be super-heated and turn into steam suddenly with great force
- Water turning into steam multiplies 1500 – 1700 its volume
- Minimise water in storage tank, by regular draining and by minimising water addition from the fire extinguishment
- Flammables will typically stay within the bund during a boil-over. A single tank in a bund is therefore preferred
- Fire people must be aware of this scenario and be prepared for it, extinguish the fire fast, and stay out of the bund
- IR temperature guns can help to predict the boil-over
- The best way to avoid Tank boil over is to avoid a full surface tank fire. Install sufficient measures for that.

Consider a Tank Boil Over