

# Styrene Monomer Runaway



- ▶ Styrene Monomer polymerized exothermally in two storage tanks.
- ▶ Products of polymerization was released from the tank
- ▶ Toxic gas cloud killed 12 and injured 1000 people in the area

## Learnings

- ▶ Control storage tank temperature with a SIL rated cooling system
- ▶ Understand inhibitor depletion characteristics, measure it and add it in time to stop a runaway reaction
- ▶ Keep oxygen concentration 15-20ppm to help inhibiting polymerization
- ▶ Take offsite impacts into consideration

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