

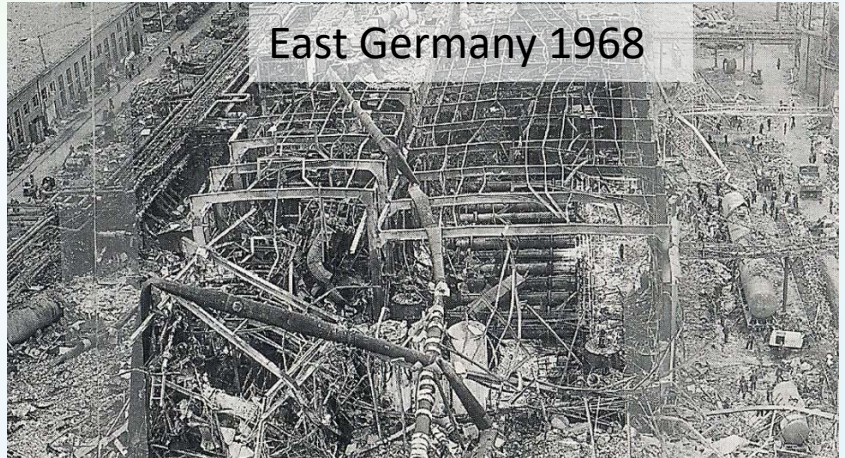
Bitterfeld Explosion

EPSC Learning Sheet November 2024



What Happened:

In the Bitterfeld 40 kt PVC plant, one of the 12 rotary kiln autoclaves, already filled with 4 tons of toxic and explosive Vinyl-Chloride (VC) was leaking.



The reactor pressure was lowered by relieving VC gas via a pressure relief into the production hall, resulting in a large explosion with 42 fatalities and hundreds of injured employees. The other 11 reactors as well as the VC storage cylinders were luckily saved.

Aspects:

- It was common to release the pressure from the reactor into the production hall and offsetting gas alarms.
- People knew “three times full breath, before you faint”.
- The leadership considered plant output more important than safety. Gas leakages were accepted.
- Emergency response planning or mitigation was non existing.
- The event costed the state over a billion East German Marks
- The “State Culture Act”, a resulting progressive environmental legislation, was not very specific or effective.

Leadership must guarantee safety is never compromised for production