

Unplugging

EPSC Learning Sheet Sept 2021



EPSC

What Happened:

In 1989 the Philips Pasadena disaster started after an ethylene release that ignited.



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High pressure ethylene might have been used to blow out residual PE polymer from a reactor settling leg. A LOTO locked ball valve was opened to do so.

Process Safety
Fundamental:
Unplugging of Equipment



Aspects:

- Polymers have the tendency to plug lines that can restrict flows or block instrument lines.
- Plants generally have no good procedures to remove plugs and operators tend to become creative to avoid shut down.
- The hazards of removing plugs need to be well understood and opening of equipment to reach the plug need to be avoided or controlled by senior management.
- Do not use pressure of hazardous chemicals to de-plug pipe lines or process equipment.
- Before opening an installation to remove polymer or plugs, remove hazardous chemicals, pressure and energy.

Unplugging of equipment needs an approved plan!