Never rely on a single valve !

23 Oct 1989 – 1116hrs

Jo: *"Hey Phil I'm really struggling to get that line clear. It's plugged at the top. Just cant get a hold on it. Any ideas?"*

Phil: *"I've cracked open the valve before and it pushes down the plug. The boss isn't keen though. Let me try him again."*

After Lunch – 1245hrs

Phil: *Any luck?*

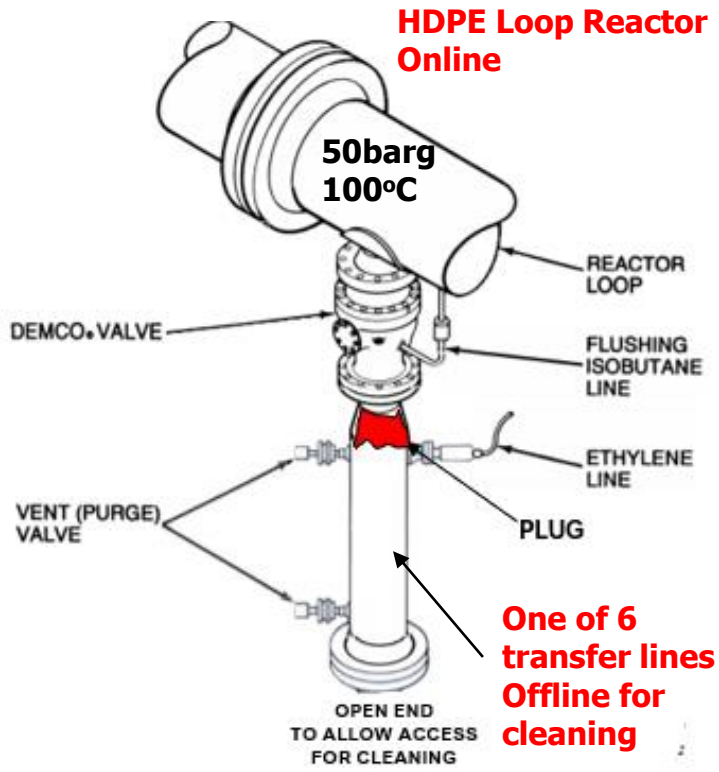
Jo: *"No….tried a wire to pull it down before lunch but it didn't work"*

Phil: *"Brian is at some meeting but I have the key. Lines 2 is starting to choke so we need to get this one back on"*

Jo: *"Take the lock off and I'll hook up the air to the valve"*

1302hrs

Phil: *"I'll open up the air then I can crack the valve……"*



The discussion between Jo and Phil is entirely fictional but is based on evidence recovered from the scene, generally known facts and one version of events prior to the incident

.....at 1304hrs around 40tes of a mixture of isobutane, ethylene and hydrogen discharged instantaneously from the open end. In the subsequent explosion(s) 23 died and 314 were seriously hurt.

- Corporate procedures called for a slip plate but this was not complied with. The single valve was locked and air hoses removed.
- The practice of cracking open the valve on the live stream to push down the plug had been done before !
- On this occasion the valve was unlocked and air re-connected the wrong way. When the air was turned on the valve slammed open releasing the reactor contents.
- Contributory factors:-
  - *Operational discipline*
  - *Isolation standards*
  - *Inadequate maintenance / operating procedures*
  - *Lack of training (hazard awareness)*
  - *MOC – People (Take-over financial pressures)*