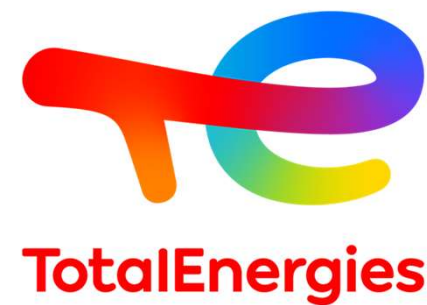




Make major technological risk
management fully operational



PSM Overview at Leuna refinery

David Doyonnas

EPSC seminar – 07/10/2025

About me...

- ➡ Currently:
- Head of Process Safety & Crisis Management
 - Since March 2024

➡ 27 years at TotalEnergies



Process Engineering
(5 y)



Several HSEQ positions
Process Safety / Safety Management Systems
Crisis Management / Occupational Safety / Quality
(22 y)



Chemical
On-site



Petrochemical
On-site



HQ
- Petrochemical
- Ref. & Chem.



HQ
Company



HQ
Ref. & Chem.



Refinery
On-site

A greater awareness of Technological Risks



➔ 1-hour awareness session on Techn-Risks

- During a “Welcome day”
- for all new employees
- during their first 3 months at the refinery
- regardless of their job function or position in the hierarchy



➔ 1-day PSM awareness training session

- for all employees (650)
- regardless of their job function or position in the hierarchy
- 1st run in 2022-2023 for about 500 employees
- 2nd run in 1S2025 (100), 3rd run in 2S2025 for the last 50 employees



Basic PSM activities



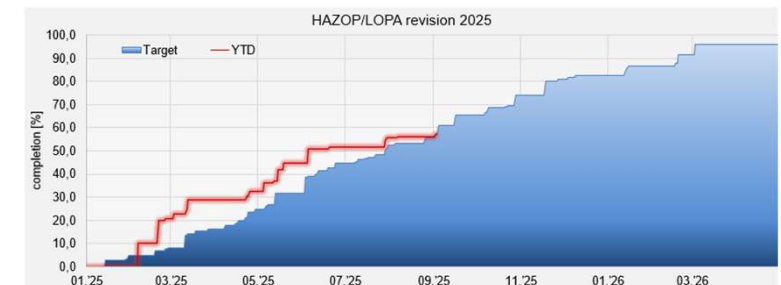
HAZOP / LOPA studies

Refinery divided into 42 “units”

Revision on a 5-year cycle (About 8 HAZOP/LOPA per year)

Carried out with external support from 2 contractors

Monthly monitoring of KPI with all refinery departments



Safety reports

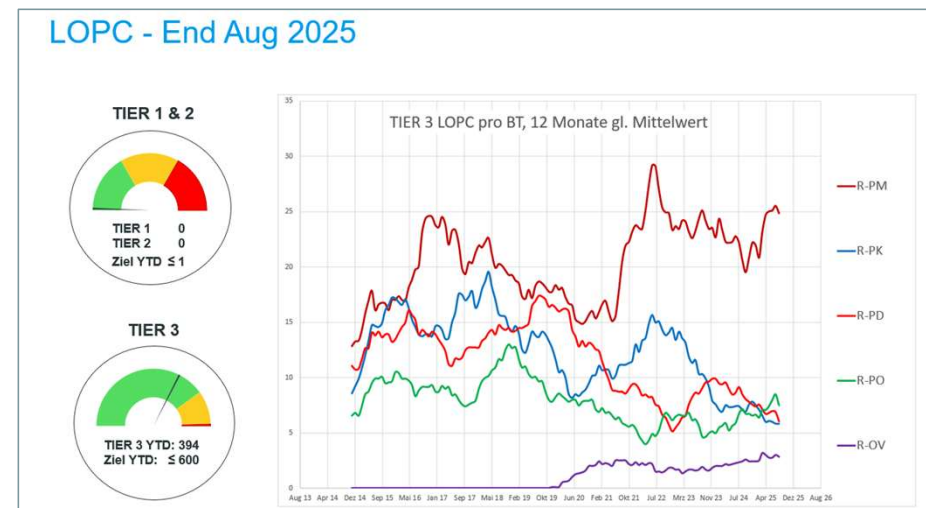
Defining how our risks are managed

As base for regular control by authorities

Revision on a 5-year cycle

Monthly monitoring with the refinery

LOPC monitoring



Specific PSM activities



QRA

Revision on a 5-year cycle
Last one dated September 2025

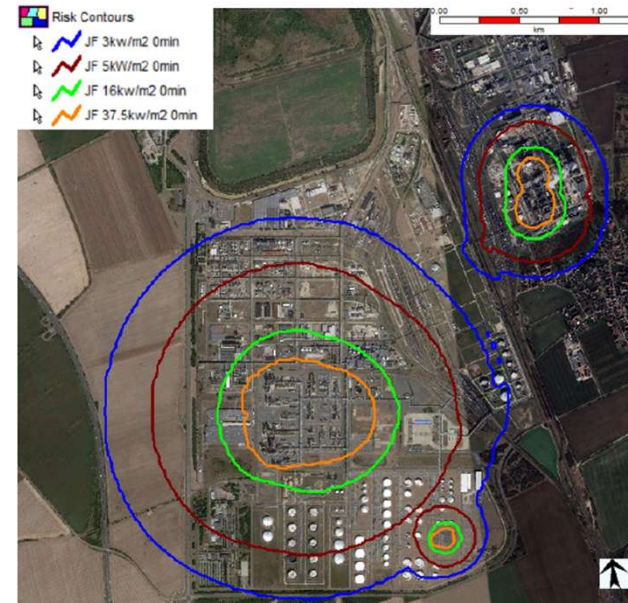


Building Risks Assessment

Example of corrective action:
new control room in POX unit



Jet Fire Contours @1E-04/yr



10 DNV © 24 SEPTEMBER 2025



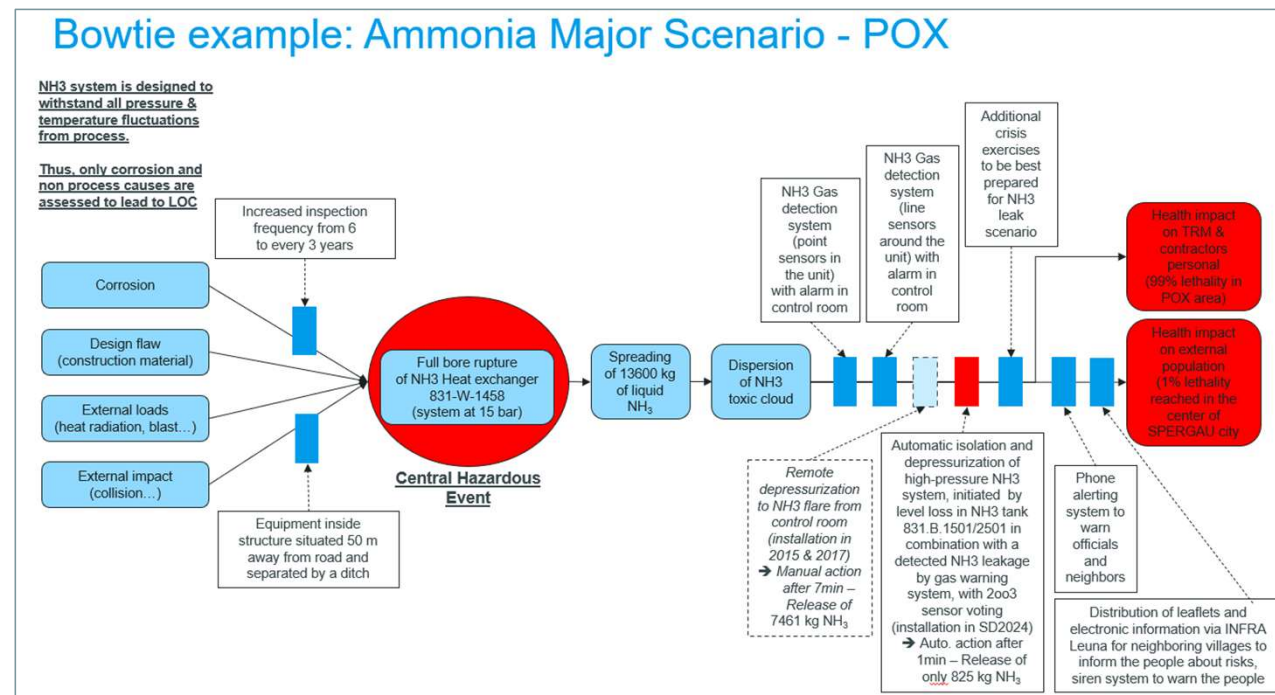
Recent PSM activities



Bow-ties

Simplified representation of scenarios:

- To improve understanding by employees
- To improve monitoring of critical barriers

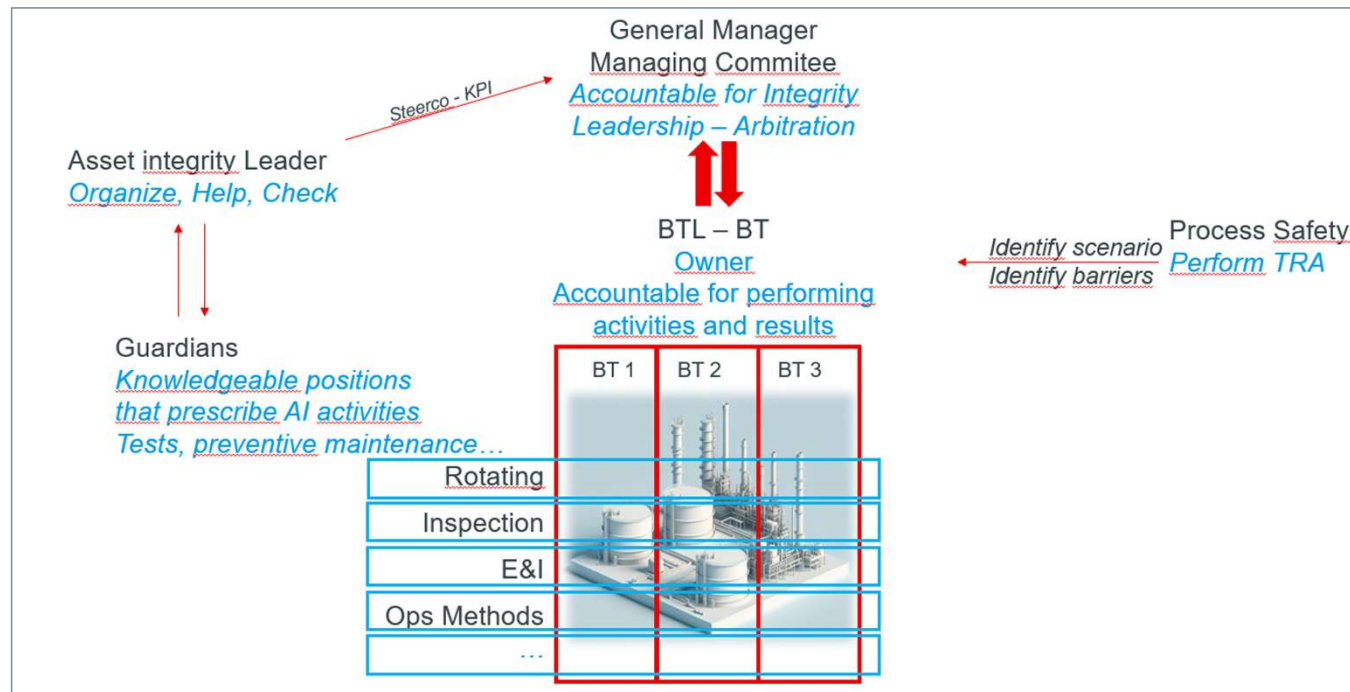


PSM and Technical Integrity



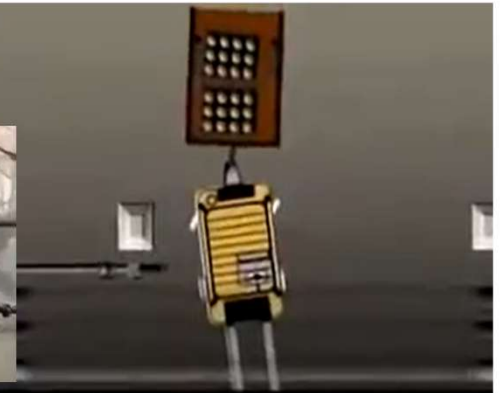
Asset Integrity management

- System ensuring that people, processes, and resources that deliver integrity of the installations are in place, in use and will perform when required, over the whole life-cycle of the asset.
- To prevent losses of primary containment & To ensure proper functioning of safeguards.



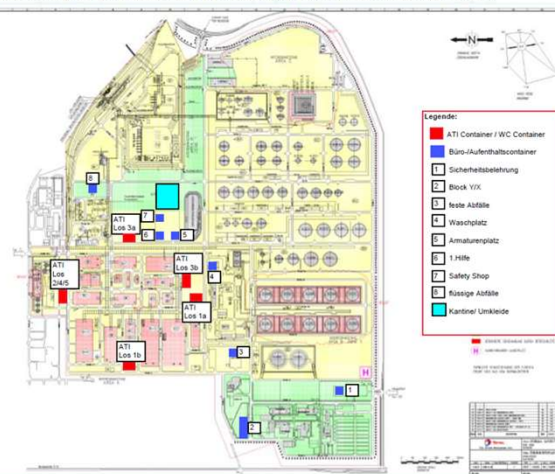
Integrating PSM in specific activities as T&I

On March 23, 2005, several explosions and a fire occurred during the startup of the isomerization unit at the BP Texas City refinery.



LOGISTIKPLAN NPA (AUFSTELLUNG CONTAINER)

Risikozonenpläne Neue Prozess Anlagen / NPA (Referenz: LE-0201 61-U1000-145723)



➔ Risk of accidental impact with small pipes or valves during scaffolding



➔ Positioning of containers during T&I

➡ **THANK YOU**

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