



## Break-Out Session 3

# The Role of SPIs in Safety Performance

## Group 3

*Please save under a different name, e.g.  
"Break-out Session 2\_Group 3\_Presentation"*

# Industries you chose to evaluate:

1. LPG-Storage and distribution
2. multi-national/multi-site
3. Explosive and pyrotechnic

# 1. How should SPIs look in each industry?



- LPG-storage and distribution
  - Safety critical maintenance & schedules
  - Testing regime for alarm systems and fire & gas detection (based on manufacturer's recommendations) / including procedures
  - ATEX, explosive atmospheres
  - Emergency preparedness (fire-fighting equipment, drills, etc.) – execution and follow-up
  - Unplanned gas releases (e.g. lifting of PRV, activation of gas detection devices)
  - Standing alarms
  - No. Failure on demand
  - No. of training of operators & drivers
  - Violation of safety critical procedures
  - Uncontrolled movement of vehicles (road-tanker / rail car)
  - Injuries and accidents

# 1. How should SPIs look in each industry?



- LPG-storage and distribution
  - SPIs recommended by trade association, but chosen by operator for upper tier sites, lower tier sites probably use consultants
  - PRO: consultants should be experienced in risk assessment and have wider experience
  - PRO: trade association – good sharing of experience and standards, interest in maintaining high standards
  - CON: consultant - site may not feel ownership, not tailored to operator and site

## 2. What kind of insights do you think the SPI can provide for the inspection in a typical site in each industry?



- LPG-storage and distribution
  - The site has most activity at one time of day (e.g. filling late afternoon) and has very low activity at other times. Difficult to inspect.

# 1. How should SPIs look in each industry?



- Chemical industry
  - Safety critical inspection, maintenance & schedules
  - Testing regime for alarm systems and fire & gas detection (based on manufacturer's recommendations) / including procedures
  - Emergency preparedness (fire-fighting equipment, drills, etc.) – execution and follow-up
  - No. Near misses and accidents incl. Unplanned loss of containment
  - Permit to work
  - Alarm management
  - No. Failure on demand
  - No. of training of operators and contractors
  - Violation of safety critical procedures

# 1. How should SPIs look in each industry?



- Chemical Industry
  - SPIs some are mandatory chosen at corporate level, additional local indicators chosen by operator
  - PRO: ownership, knowledge of process
  - PRO: consultant could support the process in some enterprises (“neutral view”)
  - CON: owner needs awareness of “tunnel vision” and missed opportunities
  - COM: consultant may hinder the “ownership process” for the SPIs

# 3. Typical strengths and weaknesses industry in 1) selection of SPIs and 2) implementation



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