



Break-Out Session 1

Safety Performance Indicators

Group 2

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

1. If a site has SPIs, how frequently do you use them in your evaluation?



- 6 Countries – Sometimes, depending on the quality or if it's offered by the company (where not mandatory)
- 1 country – Almost never
- 1 country – Never

If it's mandatory in the country, it's a serious noncompliance if a site doesn't have SPIs. Existence of SPIs, but not quality, is verified for compliance.

Question about KPIs vs. SPIs – generally agreed that sites understand SPIs as a certain subset of KPIs. Some SPIs can also be economic KPIs (e.g., capital investment for safety or maintenance)

2. What different approaches do inspectors in different countries take?



- What makes a difference in the inspection approach
 - First, consider if SPIs are necessary for the site
 - Is it appropriate for the type of site? For some sites, it might not be useful (e.g., some warehouses (not all), Biogas)
 - Is safety competence adequate to introduce SPIs?
 - If not mandatory, SPIs are not considered unless there is an SPI programme volunteered by site.

2. What different approaches do inspectors in different countries take?



European

Continued ...

- Site complexity
 - Complex sites have different needs than simple sites. Does the indicator have an impact on safety?
 - If the measure shows gaps or weaknesses, what does the site do about it?
- Measurement has to be the correct measure
 - Is it a valid measurement of the target risk factor?
 - Is there a better indicator (e.g., leading instead of lagging)?
 - Compliance with legislation (by itself) is not a good indicator
- Are they connected to their major accident scenarios?
- Don't forget about nature! Natech (floods, freezing, etc.), insect and bird nests

Examples



Example from refinery (Germany): Instead of measuring a hidden section of pipe, the site measured the elbows that were visible. The pipe failed and there was an explosion. (Pipe elbows have different stresses than other pipe sections and cannot be proxies for a different pipe section.)

Example from warehouse (Finland): The site originally counted physical weaknesses from inspection of the beams on the racks on the warehouse, checking in particular the integrity of extra protection on corners. After discussion, they realized this was a lagging indicator and in addition, they began counting the inspections completed as a leading indicator.

3. Criteria to evaluate 1) individual performance measures and 2) the SPI programme as a whole?



- Evidence that the site is living the SMS
 - Are their control systems meaningful or are they just something to check off the list?
 - Daily and weekly routines, e.g., housekeeping, walks around the site (Sometimes sites have indicators that they don't recognize are indicators)
- The way that the site developed their SPIs
 - Developed by the site or a third party?
 - Was there a process and was it systematic with a logic behind it?
 - Does it correspond to major accident scenarios?)

3. Criteria to evaluate 1) individual performance measures and 2) the SPI programme as a whole?



(Continued)

- Communication of results to people that should know
 - What results are communicated to site operator, workers, senior managers
 - Process of communication, including frequency and relevance
 - Check what the workers and managers know when you are inspecting
- The SPI programme has to be manageable,
 - Make sure you have time to manage the SPIs and still pay attention to safety
- Individual indicators have to be meaningful
 - Have to be site specific, relevant for the site
 - Can the measurement make a difference in safety performance?