Safety Performance Indicators
Two sites, two experiences.

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Mutual Joint Visit Workshop for Seveso Inspections
European Commission Joint Research Centre
SAFETY Performance Indicators
10-12 April 2018, Hernstein, Austria
The Regional Government (Regierungspräsidium) Freiburg.

- Located in the south-west of Baden-Württemberg.
The Regional Government (Regierungspräsidium) Freiburg.

• Responsible for inspecting and enforcing the German Major Accident Ordinance (Störfall-Verordnung) and Industry Emissions Directive

• Also carries out permitting procedures regarding air pollution control, waste water, solid waste and occupational safety

• Main Industries: chemical processing industry, iron and steel industry, large combustion plants, liquefied petroleum gas and hazardous materials storage facilities

More information: https://rp.baden-wuerttemberg.de/rpf/Abt5/Ref541/Seiten/default.aspx
Two Sites – What they do

**Site A**
- 1200 employees
- ca. 40 hectare
- Chemicals manufacturer: Silanes and silica including chlorosilanes, organosilanes, functional silanes and special oxides

**Site B**
- 600 employees
- ca. 20 hectare
- Chemicals manufacturer: vitamins for cosmetics, food and animal feed additives
Two Sites – KPIs for Process Safety

**Site A**

**Site B**
- Loss of Primary Containment (LOPC) according to the definitions of CEFIC and VCI
Two Sites – Leading Indicators (examples)

Site A
- Zero tolerance for leaks (incl. drips, salting out); plant inspection program with coloured flags in process flow diagrams

Site B
- Relationship between planned and executed HAZOP
- Relationship between verified (exists) and necessary process protective equipment
Two Sites – Indicators we observed (examples)

**Site A**
- Flange joint construction is logged (with photos and signatures) for every flange with hazardous substances

**Site B**
- An on-site inspection investigating reportable incidents was presented with indicators on: OSH, production, investment, emissions and waste, but no process safety SPI
Two Sites – Outcomes

**Site A**
- 0 reportable incidents (in the past 5 years)
- Pro-active discussion of materials failure (glass fibre reinforced plastics), new materials for plant construction

**Site B**
- 8 reportable incidents in 6 months (2017)
- Causes in organisation, communication, SMS, corrosion control, etc.
- Non-compliance in environmental limits
Conclusions: What we understand

- Indicators are not just numbers
- „Good performance“ in process safety will deliver good indicators – but: the reverse is not certain
- Indicators must be meaningful to be useful for the authorities
- Indicators can not replace the on-site inspection
- It is more important to understand why the indicator has a particular value than what the value is
- The outcomes are site-specific – other locations may (and do) have different experiences
Thank you for your interest!

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Nice here.

But have you ever been to Baden-Württemberg?

Baden-Württemberg
We can do everything, except speak High German.
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