

# Safety Performance Indicators

## Two sites, two experiences.

**Oliver Wolf**  
**Regierungspräsidium Freiburg**

**Mutual Joint Visit Workshop for Seveso Inspections**  
**European Commission Joint Research Centre**  
**SAFETY Performance Indicators**  
**10-12 April 2018, Hernstein, Austria**



**Baden-Württemberg**  
REGIERUNGSPRÄSIDIUM FREIBURG

# 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

- Based on the incidents defined by CEFIC (European Chemical Industry Council) in 2011. (CEFIC – Guidance on Process Safety Performance Indicators, 2nd Edition, May 2011)

## 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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Baden-Württemberg

REGIERUNGSPRÄSIDIUM FREIBURG

# Nice here.

But have you ever been to Baden-Württemberg?



Baden-Württemberg

We can do everything, except speak High German.



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