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

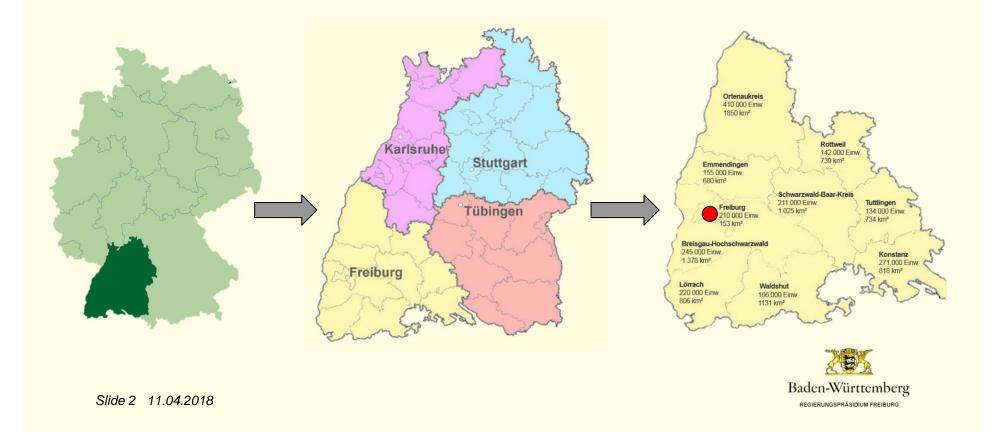
10-12 April 2018, Hernstein, Austria



Baden-Württemberg

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 sillica 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



SPI - Two sites, two experiences

Thank you for your interest!



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Baden-Württemberg

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SPI - Two sites, two experiences

Nice here.

But have you ever been to Baden-Württemberg?



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



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