

PSMA Handreiking MKB

Process Safety Management Approach (PSMA) for BRZO Small and Medium-sized Enterprises

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Handreiking Process Safety Management Aanpak PSMA

*Voor mkb BRZO en andere
chemiebedrijven*

Uitgebracht door:
Koninklijke Vereniging van de Nederlandse
Chemische Industrie

Projectuitvoering:
Quirine Consulting



PSMA Guide for MKB BRZO: Why and How

2018 : VNCI MKB steering team

MKB companies need support to bring complex BRZO legislation into practice.

These companies typically rely on a few key resources to make it happen.

Large BRZO companies have corporate staff and specialist resources for process safety.

Goal: develop a clear and practical guide for MKB companies in the chemical industry to support them to implement and maintain a good process safety management system.

2019-2020 : PSMA Guide developed, together with VNCI members.

Peer Reviews for cross-learning and to test the PSMA Guide.

MKB companies: Sachem Europe, ChemCom Industries, Dr. W. Kolb and Kisuma.

Large companies: Dow Chemical, Nouryon, DSM and BASF.

Subsidy from I&W ministry via Safety Deal program.

Focus and Structure of PSMA Guide (1)

- **Focus on Process Safety**
- **Based on the CCPS (Centre for Chemical Process Safety) 20 elements of Risked-Based Process Safety Management.**
- **Aimed at practical implementation (checklist-style; Dutch BRZO)**
- **For MKB BRZO (Seveso) companies; and other companies with similar risks.**

The PSMA Guide has 3 sections:

1. Process Safety culture as a key success factor

2. Seven fundamental building blocks for process safety

3. Ten additional building blocks for process safety

Focus and structure PSMA Guide (2)

Process Safety culture as a key success factor

- Leadership commitment as a critical factor for a good process safety culture.
- Tasks, roles and responsibilities → Central role of BRZO Top Manager
- Performance indicators

Fundamental Building Blocks

- Critical elements of the building block.
- Tasks, roles and responsibilities for key personnel.
- Practical leading and lagging performance indicators
- Suggestions for committed leadership of BRZO Top Manager

Additional Building Blocks

- Description of building block.
- Important success factors.

7 Fundamental building blocks for Process Safety

- 3.1 Compliance with regulations and standards
- 3.2 Integrity and reliability of equipment and systems
- 3.3 Management of Change (MOC)
- 3.4 Operational readiness to ensure safe startup
- 3.5 Hazard identification and risk analysis (major accident hazards)
- 3.6 Safe Work Practices (work permits)
- 3.7 Learning from process safety incidents and near-misses

→ Peer Reviews: focus on fundamental building blocks and process safety culture

10 additional building blocks for Process Safety

- 4.1 Process safety competency
- 4.2 Workforce involvement
- 4.3 Managing external stakeholder expectations
- 4.4 Process knowledge management
- 4.5 Contractor management
- 4.6 Training and performance assurance
- 4.7 Operational discipline at a facility (conduct of operations)
- 4.8 Emergency management (planning and response)
- 4.9 Operating procedures
- 4.10 Monitoring, management review and auditing

Benefits: feedback from participants

We already have a good level safety standard. Yet still several improvement items were found during the Peer Reviews.

The self-audit and peer review on the basis of the PSMA guide works well and is useful for other companies

Biggest benefit is that we are now much more proactive in process safety management. We are currently not a BRZO company, but may be one in the future.

This step up in process safety brings us clear benefits and helps us in the dialogue with external stakeholders.

I also noticed a clear need to learn from each other. In the space of process safety management there is always more to learn and the BRZO legislation sets a high standard.

PSMA program: next steps

- **2021: new round of PSMA Peer Reviews with VNCI members**
- **2021: cooperation with Safety Delta Nederland (SDN) to spread the benefits of this approach across the BRZO sector.**
Also testing the combination of Peer Review and SDN QuickScan.
- **2021+ : develop a (virtual) network of process safety experts from BRZO MKB companies.**

Questions / Discussion



Questions on the Process Safety Management Approach ?

Discussion:

- **Own experiences & challenges.**
- **Interest in building a network of experts.**
- **Ideas or suggestions to take this further.**

References

- [1] [VNCI Handreiking Process Safety Management Approach PSMA](#)
- [2] [VNCI Nieuwsbericht - Praktische hulp bij complexe BRZO-materie](#)
- [3] [Chemie Magazine, december 2020: Praktische hulp bij complexe BRZO materie](#)