

INDUSTRIAL END USER OF CHEMICALS: CHEMICAL PLANT RISK ASSESSMENT & EXPOSURE SCENARIOS



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EVELYN TJOE NIJ - ENES 12 WORKSHOP, 21 NOVEMBER 2019

REACH and Exposure Scenarios: Downstream User perspective

Advantages:

- More information available, improved quality of Safety Data Sheets (SDS) and labels
- Availability of Derived No Effect Levels (DNELs), when there are no regulatory or company Occupational Exposure Limits (OELs).
- Assurance that the risks have been assessed for identified uses
- Exposure Scenario information is helpful for screening risks for introduction of new chemicals
- Sector organisations provide more guidance on how to use chemical products in a safe way

Disadvantages:

- Overlap with Occupational Safety and Health (OSH) regulation, where OSH regulation is much more dedicated to workplace risk assessment (including generated hazards), considers complex chemical environments and the hierarchy of control is mandatory
- Administrative duties

Learning points from the detailed Exposure Scenario checks at chemical plants

- The full Exposure Scenario checks done did not lead to changes in the workplace conditions.
- In most cases, the conclusion was that the actual situation was of a higher protection level than described in the Exposure Scenario.
- List with possible industrial activities (in understandable wording) and related Process Categories (PROC) numbers was helpful for doing the Exposure Scenario check at plant level
- A workplace risk assessment as required under the Chemicals Agents Directive, is considered sufficient to control workplace hazards by trained occupational hygienists and labour inspectors in several European countries.

EXAMPLE of some industrial activities	
Version October 2017	PROC
PRODUCTION facilities	
General measures	n.a.
storage	1
sampling (closed system)	3
sampling (open or semi-open system)	9
transport of chemicals (completely closed system)	1
transport of chemicals (dedicated, mainly closed system)	3
transport of chemicals (non-dedicated, open or semi-open system)	8a
(un)loading/bulk transfers/ material transfers, dedicated system, mainly closed system	8b
etc.	

Proposed high level Exposure Scenario check

Companies that already have a good workplace risk assessment, regular updates and effective actions plans + Environmental permit

- Requirement on checking if the (Identified) Use is covered = high-level ES check
- Requirement on checking Msafe?

- Companies' responsibility to choose the best combination of control measures, in agreement with the hierarchy of control. Engineering controls are preferred.
- Companies' decision on how to integrate content of ES information into workplace risk assessment – e.g. integrate in the procedure for "introduction of new chemicals".

Discussion points from Industry as downstream user

- What should an Exposure Scenario check look like for companies already complying with requirements under the Chemicals Agents Directive?
 - How can we prove compliance with article 37(4) by a company risk assessment as required under the Chemicals Agent directive.
- How can we get acceptance of an agreed method for a high-level Exposure Scenario check by all stakeholders (Member States)?
 - Who are the stakeholders and what role do they have?
- What are circumstances that make a Downstream User Chemical Safety Report necessary?
 - How and why this is helpful for the end user?

Ext SDS improvements relevant for Industry as Downstream User:

- As discussed within ENES projects:
 - Improvement of layout of the Exposure Scenario:
 - Table of Content
 - Improvement of Title Section
- Further improvements (relevant for all Downstream Users):
 - Create sector specific/company specific translation lists from PROCs to understandable language
 - Exposure control measures to be applied to all activities with the substance should be only specified once (e.g. in section 8.2 of the SDS), and not multiply repeated within and across all the exposure scenarios.