

How to build a link between existing risk management advice and REACH exposure scenarios?

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Agenda

- Initial Situation and Objectives
- Approach and Activities
- Results
- Outlook

Initial Situation

- **CSR/ES Roadmap action 2.3:**
Connecting existing risk management measure (RMM) packages for worker exposure to REACH CSA
- **BAuA project:**
How to build a link between existing risk management advice and REACH exposure scenarios?
- Timeline:
 - Kick-off meeting 3 July 2014,
 - project planned for six months



Objectives

REACH

Exposure Scenarios

Interface

safe use

OSH

Risk Management Measures

Objectives

- Exposure Scenarios (ES) and Risk Management Measures (RMM) both describe „safe use“
- Different target audiences:
 - ES: downstream user, often formulators
 - RMM: end user, employers, often not chemicals sector
- Different methods:
 - ES: structured approach as defined by REACH
 - RMM: highly diverse (many are „pre-REACH“)

Approach of Project

- **Project Step 1:**
Identification and characterization of existing RMM packages for worker exposure in Europe (sector/ task/ product specific safe use information)
- **Project Step 2:**
Detailed analysis of assorted RMM packages
- **Project Step 3:**
Matching of assorted RMM packages to ES

Approach of Project

- **Project Steps 1 + 2:**
 - Laying the basis for an interface between ES and RMM

- **Project Step 3:**
 - Defining and applying the interface

Activities

- **Project Step 1:**
 - Definition of **criteria describing the macro - structure** of RMM packages
 - **Structural analysis** of 21 RMM packages containing more than 700 single guidance documents:
 - HSE COSHH Essentials, ILO Guidance Sheets, BAuA EMKG Control Guidance Sheets
 - 11 RMM packages by social accident insurance institutions
 - 2 Generic Exposure Scenarios (ESIG, AISE)
 - „process- and substance-specific criteria“ based on TRGS 420

Activities

- **Project Step 2:**
 - Definition of parameters describing the content of RMM documents
 - **Detailed analysis of RMM documents**
 - HSE COSHH Essentials (partially), BAuA EMKG Control Guidance Sheets (partially)
 - 11 RMM packages by social accident insurance institutions
 - 2 Generic Exposure Scenarios (ESIG, AISE)
 - „process- and substance-specific criteria“ based on TRGS 420
 - Participation request to ENES community („self assessment“)

Status of Project – Activities completed

- **Project status**

- RMM packages have been researched
- Criteria and parameters have been defined
- Structural analyses are finished
- Analyses of contents are finished
- Some ENES members have responded

- **Project Steps 1 and 2:** **completed**

- **Project Step 3:** **in progress**

Results of Project Step 1: Structure

Criteria for macro - structural analysis (examples)

- **Who** created the guidance documents?
- **Where** to apply the guidance documents?
- **How** extensive are the guidance documents?
- **Standardised** documents?
- **Authoritative** documents?
- **Exposure data** considered explicitly?
- **User support** available?

Results of Project Step 1: Structure

Full set of criteria for macro - structure

Field	Explanation
#	Number from one to ...
Author/Editor	organisation/institution, abbreviation where necessary (indicate in sheet "Abbreviations")
Source	web address or literature
Language/s	Name the languages in which the guidance system is available
Public	„X“ = Yes. Is the source accessible publicly or, e.g. members only?, "(X)"=not all documents
Users	If not public, who are the users?
Industry	Industrial sector, which is addressed by the guidance system
Operation	Indicate relevant operation if any
Quantity	Number of singular guidances within this guidance system
Page number	Number of pages of a single guidance (if variable indicate min, max, avg)
standardized	„X“ = Yes. Is the guidance system homogenous in it's structure?
Variability	Blank = „None“, if previous field contains "X"; else: „1“: low/rare variations, „2“: high/frequent variations
Authoritative	Is this guidance legally binding, e.g. by law or by employer's liability insurance coverage
Exposure relevant?	„X“ = Yes. Height of exposure is at least mentioned as a qualitative criterion for RMM selection, "(X)"=in some documents
Measured Values	„X“ = Yes. Exposure measurements are criteria for RMM selection, "(X)"=in some documents
Modelling	„X“ = Yes. Model results are criteria for RMM selection, "(X)"=in some documents
Type of model	Name the relevant exposure model, leave blank if not relevant, if no information is given use "not specified"
Range	„X“ = Yes. Exposure must be given as a range of values, which is the criterion for RMM selection, "(X)"=in some documents
Value	„X“ = Yes. Exposure must be given as a single threshold value or limit, which is the criterion for RMM selection, "(X)"=in some documents
Qualitatively	„X“ = Yes. Exposure is defined as a quality, e.g. "low"/"medium"/"high", which is the criterion for RMM selection, "(X)"=in some documents
Help available	„X“ = Yes. There is help, supplementary documentation, or other kinds of support available to facilitate usage of this guidance, "(X)"=for some documents
Type of help	e.g., "Text", "Video", "Trainings", "worked examples", ...
Source of help	web address or literature

Results of Project Step 1: Structure

- RMM packages have been developed by diverse branches (construction, chemistry, energy, textile, print, ...)
→ However, many of them are „branch agnostic“
- RMM packages vary strongly with regard to volume and/or standardisation
- The following RMM packages are standardised and compact:
 - BAuA CGS, COSHH Essentials, ILO Guidance Sheets, AISE GEIS, ESIG GES, GISBAU (GISCODE)
- Nearly all RMM packages are public and available for free

Results of Project Step 1: Structure

- RMM packages can be divided in two groups
 - **Group 1**
 - **Several** exposure situations covered by **one** document
 - several sets of measures per document
 - selection criteria **within** document
 - RMM packages by social accident insurance institutions, Generic Exposure Scenarios, „process- and substance-specific criteria“

Results of Project Step 1: Structure

- **Group 2**
 - **One** exposure situation covered by **one** document
 - one set of measures per document
 - selection criteria **outside** document
 - **Documents of group 2 do not contain exposure data!**
 - the "target exposure level" is selected before the RMM-package is chosen
 - COSHH Essentials, ILO Guidelines, BAuA EMKG CGS, BG BAU „GISCODE Documents“

Results of Project Step 2: Content

- **Parameter selection for content analysis**
 - Parameter selection was based on input requirements of tier-1-models.
 - The following parameters were selected:
 - substance identity/group, type of setting, PROC, concentration, scale of use, frequency of peak exposures, duration, process temperature, application on surfaces, room size, ventilation, LEV, enclosure, suppression techniques, PPE
- Core question (for each document): ***Are proposed measures explicitly related to these parameters?***

Results of Project Step 2:Content

	Substance identity	Substance group	Type of setting	PROC	Concentration	Scale of use	15min peak exposures	Duration of process/task	Process temperature	Application on surfaces	Room size	Level of general ventilation	Local exhaust ventilation	Type of enclosure	Suppression techniques	Types of PPE	
Group 1	Expo GISBAU																
	Gefahr GISBAU																
	BG/BIA																
	BG/BGIA																
	IFA																
	BGI/GUV																
	BGHM																
	LASI																
	BG ETEM																
	TRGS 430/DGVU																
	TRGS 430																
	TRGS 430/Katalog																
	VSK BAuA TRGS 420																
	VSK BAuA TRGS 513																
	AISE GEIS																
	BG RCI																
	ESIG																
Group 2	BAuA																
	HSE COSHH																
	ILO																
	GISBAU CISCODE																

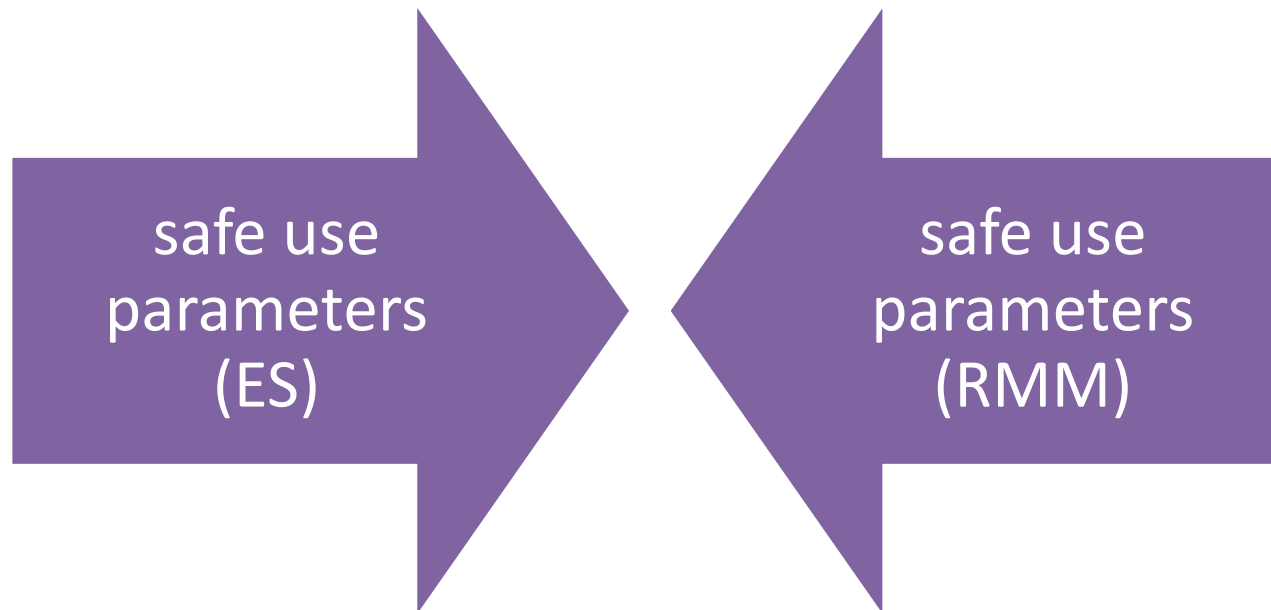
Parameter is used in RMM package



Overview content analysis

Outlook: Project Step 3: Matching

Core Task:
Translation of „safe use“ descriptions




Outlook: Project Step 3: Matching

Starting point: Exposure Scenarios

3.1 FORMAT AND CONTENT OF EXPOSURE SCENARIOS

The agreed format of the exposure scenario consists of 4 sections:

1. Title section
2. Conditions of use affecting exposure 
3. Exposure estimation and reference to its source
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

From: An illustrative example of the exposure scenarios to be annexed to the safety data sheet. Part 1: Introductory Note

Outlook: Project Step 3: Matching

- **Open Tasks**
 - Evaluation of RMM packages
 - Can RMM packages be matched to ES with reasonable effort?
 - Retrieval of scenario characteristics from RMM documents
 - PROC, SU, PC
 - product characteristics
 - amount used, duration of task, ...
 - process conditions ...

Thank you for your attention!

Please support  projects!

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