

# Risk-based limit values for carcinogens

The Dutch experience

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# The Dutch OEL system

- Public OELs, (set by the Minister) in particular for
  - substances ‘without owners’
  - high-risk substances
  - substances for which a EU BOEL or IOEL exists
- Private OELs, have to be identified by companies if no public OELs are set
  - legal obligation
  - numeric value private OELs non-binding

# The Dutch OEL system

- All Dutch OELs are based on science (toxicology, epidemiology)
- Setting of OELs for chemicals for which no safe level of exposure can be established, the so-called non-threshold chemicals, also involves feasibility considerations

# Non-threshold chemicals

- no safe limit
- carcinogenic and mutagenic substances ; sensitizers
- zero exposure only way to exclude all risk
- zero exposure not always possible
- setting OELs based on the concept of risk acceptance

## “As low as technically feasible”

- Why do we need more?
  - gives no indication for when obligations are complied with
  - uncertainty for employers
  - enforcement problematic
  - no minimum protection levels for workers

# The Dutch OEL system for carcinogens

Ministry sets binding OELs, based on 2 step advice:

1. Health Council calculates exposures at two predefined extra risk levels
2. The OEL Subcommittee of the Social and Economic Council (SER) carries out a feasibility test based on these risk levels and advises the Ministry

# Risk levels for carcinogens

	Target risk level	Prohibitive risk level
Per year	$1 \times 10^{-6}$	$1 \times 10^{-4}$
Per working life (40 years)	$4 \times 10^{-5}$	$4 \times 10^{-3}$

## Feasibility check by the SER OEL Subcommittee

- OSH experts from industry associations and trade unions, and independent experts
- six months to collect the information from the sectors
- Information collected from companies, industry and workers
  - technical feasibility
  - financial consequences



## Feasibility check by the SER OEL Subcommittee

- Aim: to show whether target risk is feasible
- Prohibitive risk may not be exceeded
- Comments preferably including measurements
- Discussion based on feasibility information
- If target risk not achieved, feasibility check is repeated in 4 year

## Experiences: disadvantages

- Risk based OELs sometimes hard to achieve (esp. at target risk)
- Sometimes difficult to measure (esp. at target risk)
- Requires many resources
- Lengthy procedure



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## Experiences: advantages

- Enforceable limits
- Decreased uncertainty (for employers & employees)
- Increased awareness
- Lower exposures
- Well-accepted by stakeholders



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# Conclusion: risk based OELs for carcinogens

- <http://wetten.overheid.nl/BWBR0008587/BijlageXIII>
- relatively low OELs
- supported by stakeholders
- ensures basic level of protection
- helps prevent unacceptably high exposures
- gives clarity

**It works for already more than 20 years!**

Thank you  
for your  
attention!

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