

Use of information generated by REACH/CLP and other legislation to ensure safe use of chemicals

ENES 7

18 - 19 November 2014

Andrew Murray
Risk Management Identification Unit
European Chemicals Agency

Context

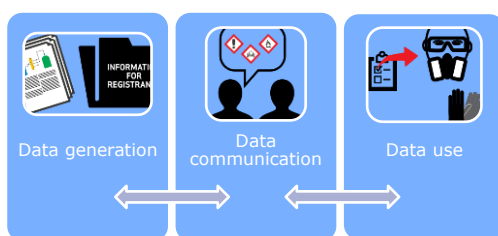


Legal obligations

- REACH
- Environmental protection law
- Occupational health and safety law
- Provisions on major accidents
- Product safety law
- ...

Context

- Use of REACH/CLP information to support compliance under other legislations
- CSR/ES Roadmap, Action area 5: Support to end-users
- Building understanding from case studies
- Now inviting input from ENES community



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Case study - Scope

REACH/CLP information use in other legislative contexts at (downstream) end-user site

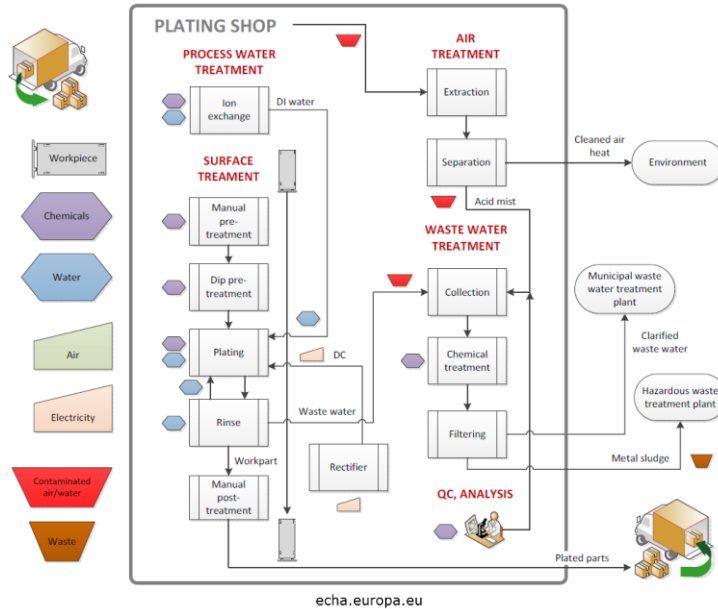
- Industrial Emissions Directive (IED)
- Chemical Agents Directive (CAD)
- Carcinogens and Mutagens Directive (CMD)
- Practical approach, using real life SDS/ES
- EU level – not dealing with national differences

Choice of example

- Typical process where chemicals are used: wide range of chemical types and hazards, and process operations typical to many sites
- Possibility to apply learnings to other industry sectors

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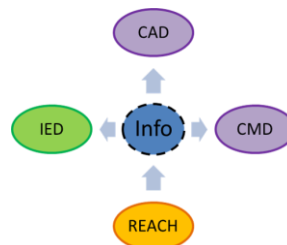


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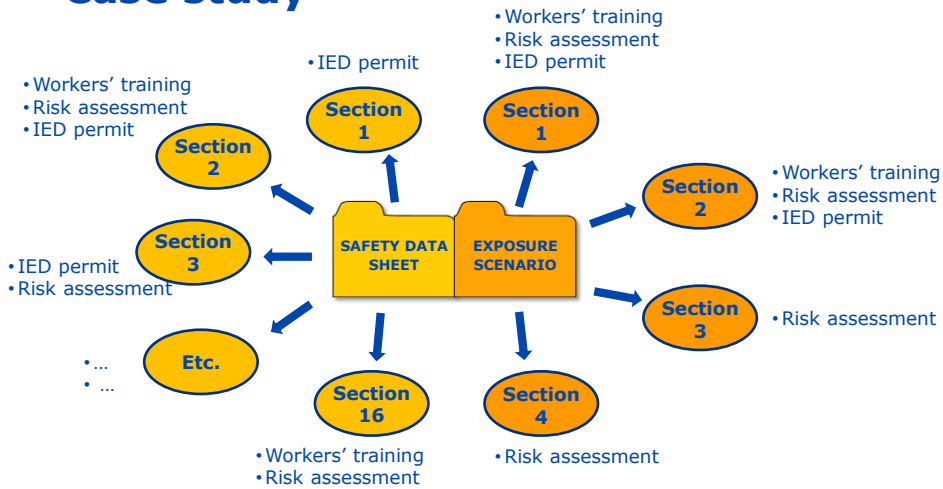
Case study – situations explored

Use of REACH/CLP information to support the following activities:

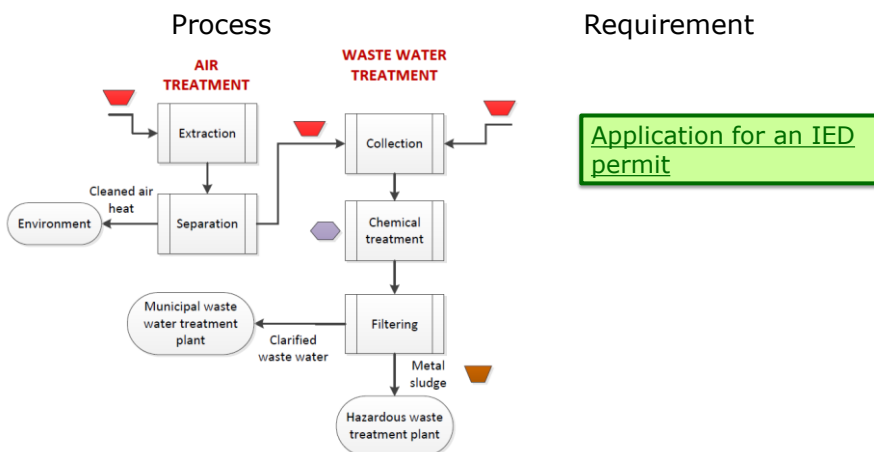
- Application for an IED permit
- CAD/CMD workplace risk assessment
- Information and training for workers
- Risk management of daily operations



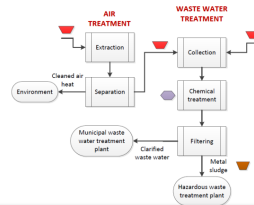
Case study



Case study – example



Case study – example



Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Waste water:

On-site wastewater treatment in a physico-chemical treatment plant by chemical precipitation, sedimentation, filtration or a combination. (Efficiency: 95 - >99%)

Off-site waste water treatment plant, community sewer system for ES 1 (Efficiency 40%)

ES1 freshwater discharge to STP: 3779 g/T (median)

ES2 freshwater direct discharge: 3779 g/T (median)

ES3 marine direct discharge: 3779 g/T (median)

Air:

Treatment of stack air emission by wet scrubbers. (Efficiency 99%)

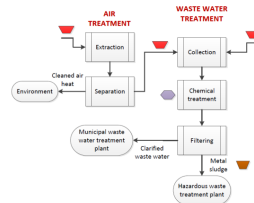
ES1, 2 & 3: Release factor after on-site treatment: 1133 g/T (median)

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IED permit

Description of the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation.

Case study – example



Conditions and measures related to external treatment of waste for disposal

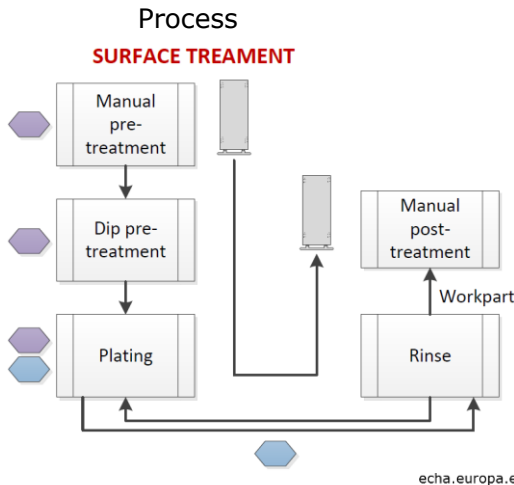
Hazardous wastes from onsite risk management measures and solid or liquid wastes from production, use and cleaning processes should be disposed of separately to hazardous waste incineration plants or hazardous waste landfills as hazardous waste. Releases to the floor, water and soil are to be prevented. If the nickel content of the waste is elevated enough, internal or external recovery/recycling might be considered.

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IED permit

Description of the measures for the prevention, preparation for re-use, recycling and recovery of waste generated by the installation.

Case study – example

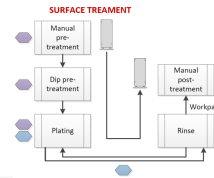


Requirement

CAD/CMD Workplace risk assessment

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Case study – example



SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
1272/2008 (CLP)
 Skin Sens. 1, H317
 STOT RE 1, H372
 Carc. 2, H351
67/548/EEC - 1999/45/EC
 T; R40-43-48/23

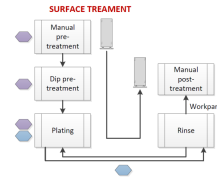
2.2 Label elements
 CLP Article 23 d labelling derogation
1272/2008 (CLP)
 GHS07 - GHS08
 Signal word **Danger**
Hazard Statements
 H317 May cause an allergic skin reaction.
 H372 Causes damage to lungs through prolonged or repeated exposure by inhalation.
 H351 _Suspected of causing cancer via inhalation.
Precautionary Statements
 P202 Do not handle until all safety precautions have been read and understood.
 P281 Use personal protective equipment as required.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazards
 The PBT and vPvB criteria of Annex XIII to the regulation does not apply to inorganic substances.

Workplace risk assessment
Identification of main concerns for the human health.



Case study – example

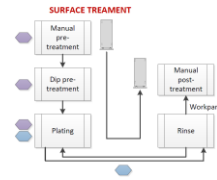


<p>Processes, tasks, activities covered (workers)</p>	<p>Contributing exposure scenario ES 10.1 {PROC 3: Use in closed batch process (synthesis or formulation)} PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC: 5 Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact) : PROC 8a: Raw material handling PROC 8b: Transfer of substance or preparation PROC 13: Plating operations PROC 15: Use as a laboratory reagent Contributing exposure scenario ES 10.2: PROC 0: Cleaning and maintenance</p>
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Workplace risk assessment
Identification of who may be exposed to the substance.

Case study – example



<p>Technical conditions and measures at process level (source) to prevent release The $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$ powder (or NiSO_4 solution) is carefully added to the tank solution where the process is not automated, in order to avoid throwing the $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$ powder along the length of the tanks and creating liquid splashes and powder becoming airborne.</p> <p>Technical conditions and measures to control dispersion from source towards the worker Local (where appropriate) and general exhaust ventilation. Vacuuming or suitable wet removal methods for cleaning settled dust etc. from plant and premises. Avoid inappropriate cleaning methods such as dry brushing.</p> <p>Organisational measures to prevent /limit releases, dispersion and exposure Training to reinforce good workplace hygiene practice and hygiene issues</p>

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Workplace risk assessment
Identification of RMM, technical and organisational measures.

Authorities' activities

Development of links:

- IMPEL activities
Linking the Directive on Industrial Emissions (IED) and the REACH Regulation, November 2013



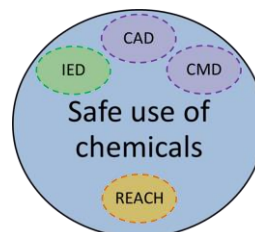
- SLIC/CHEMEX activities
Guidance for National Labour Inspectors on the interaction of the REACH, CAD and CMD, May 2014



Case study – next steps

Feedback

- Received from limited group
 - Industry, OSH and environmental authority
 - Positive reactions
 - Seems fit for purpose but may be challenging for less experienced audience
 - Quality and readability of SDS/ES is key
- Invite input from ENES community – strategic issues
 - Document and link to questionnaire will be sent after ENES 7
 - Feedback early 2015



Workshop

- Helsinki, March 2014

Case study – strategic feedback

1. Can you identify potential uses/aspects of REACH/CLP information not illustrated?
2. How to improve the exemplification for different groups?
3. Are there other legislations that should be included in the scope?
4. What are the key discussion topics that should be included in the agenda of the March 2015 workshop?
 - o Do you have your own practices on information use that you would share?

Any first reactions or questions?



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andrew.murray@echa.europa.eu

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