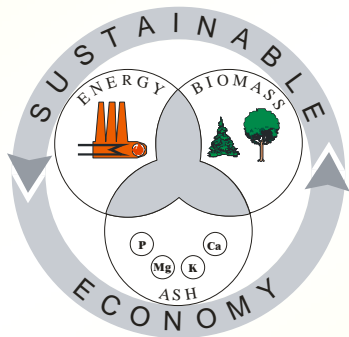


**Workshop:**  
**Energy Ashes and the Waste Frame Directive**

**Classification of Ashes according to REACH/CLP**  
**Legal consequences in Austria**

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## Background (I)

- Currently an adoption of the classification of wastes according to their hazardous properties according to APPENDIX III of the Waste Framework Directive (WFD) 2008/98/EG and the European Waste List (EWL) is underway.
- This was necessary, since in APPENDIX III references to chemicals regulations (67/548/EEG and 1999/45/EEG) are made, which will be replaced by new regulations ((EEG) Nr 1907/2006 (REACH) and (EEG) Nr 1272/2008 (CLP)) by 2015.
- The goal of the adaption is an alignment to the classification of the CLP regulation.
  - Harmonization of hazardous properties in the chemical and waste law on a European level



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## Background (II)

- Since the classification system of the CLP regulation provides stricter limiting values, it can be assumed that, if the CLP-system is implemented in the European waste law, the amount of hazardous wastes will increase in Europe
- As far as wood ashes are concerned, especially the regulations according to CLP for the classification of corrosive properties are of relevance
  - According to CLP, all wastes with a pH-level above 11.5 would be classified as hazardous waste
  - Due to their content of  $\text{CaO}/\text{Ca}(\text{OH})_2$  ashes from the combustion of woody biomass would be classified as hazardous wastes!



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## Ash utilization in Austria

### Current utilization paths

- Fertilizing and soil improving agent (legally non binding guideline available) →  $\text{CaO}/(\text{CaOH})_2$  one of the valuable components
- Additive to compost production (legally binding ordinance available) →  $\text{CaO}/(\text{CaOH})_2$  one of the valuable components
- Cement industry, brick industry (no guideline available) →  $\text{CaO}/(\text{CaOH})_2$  one of the valuable components

### Future utilization paths

- Soil stabilization (R&D underway) → CaO relevant component
  - Road construction (R&D underway) → CaO relevant component
- The  $\text{CaO}/\text{Ca}(\text{OH})_2$  content is one of the main reasons, why ashes are utilized!



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## Legal consequences in Austria

### ➤ The classification of wood ashes as hazardous waste would lead to significant legal consequences in Austria:

- For operators of biomass combustion plants
  - Stricter permit obligations for storage, handling and transport
  - Notification requirements
  - Consignment notes for hazardous wastes
- For users of the ash
  - Stricter permit obligations for storage, handling and transport
  - Special permits for the collection and processing of hazardous wastes required
  - Utilization bans for selected utilization paths

→ This would increase the cost for the disposal/utilization of ashes significantly and would put the economic feasibility of many biomass combustion plants into question



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## Legal consequences in Europe

### ➤ Legal consequences on a European level (examples):

- Waste Framework Directive
  - Control of hazardous waste (traceability from production to final destination)
  - Ban on the mixing of hazardous waste
  - Labelling of hazardous waste required
  - Permit of waste treatment required
  - Inspections for producers
  - Record keeping for producers and users
- Waste shipment regulation
- Landfill decision
- IPPC



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## Current status of the discussion in Austria (I)

- In October 2011, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (AFME) organized an international Workshop about this topic in Vienna
- The purpose of the workshop was to highlight the consequences of aligning all hazard criteria of the EWL to the CLP regulation, especially focussing on the hazardous properties HP4/HP8 (irritant/corrosive), HP13 (sensitizing), HP14 (exotoxic) and HP15 (yielding another hazardous substance after disposal)
- Representatives from the European Commission, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management as well as national and international representatives from companies, interest groups and trade organizations attended the workshop



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## Current status of the discussion in Austria (II)

- Conclusions from the workshop:
  - If a strict alignment of the European waste management legislation with the chemicals legislation (CPL regulation) is enforced, a lot of now non-hazardous wastes would be classified as hazardous, leading to significant consequences for waste management in many different industrial sectors (energy, cement, construction, iron and steel industry)
  - Especially the classification of waste according to their pH-level is problematic since wastes with high  $\text{CaO}/\text{Ca}(\text{OH})_2$  contents (e.g. wood ashes!) may lose their corrosive characteristics over time by ageing (carbonatization) → a classification based on the initial pH-level might be misleading
  - The anticipated time frame (finalization of the revision of the WFD and the EWL by the end of 2011!) should be revised, since more time is required to address the problems discussed



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## Current status of the discussion in Austria (III)

- The FHP, an organisation of the Austrian forest, wood processing and paper industry, initiated another workshop with special attention to wood ashes in November in Vienna
- International Experts from Germany, Sweden and Austria discussed the consequences of the classification of wood ashes as hazardous waste with representatives from the AFME
- The main conclusion was that the classification of wood ashes as hazardous waste would significantly limit the options for a sound utilization (e.g. the application of hazardous waste on agricultural land is not possible) and would increase the amount of biomass ashes to be disposed off



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## Conclusions

- If a classification of wastes according to the CPL regulation is enforced, an increasing amount of wastes would be classified as hazardous  
→ severe consequences for many different industrial sectors expected, especially for the utilization of wood ashes
- The classification of wood ash as hazardous waste would lead to a significant increase in the storage, handling and transport costs and would therefore limit the options for a sound utilization and would increase the amount of wood ashes to be disposed off
- There is no doubt that wood ashes must be handled carefully. But this fact does not justify that the ash is placed in the same conceptual level, such as highly pathogenic or highly toxic material.



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## Outlook

- Facing the feedback from Austria and other member countries, the European Commission extended the time schedule for the finalization of the adoption of the WFD and EWL
- The working group for the adoption of the WFD and the EWL currently discusses for a number of waste streams, that would be classified as hazardous in the future due to their  $\text{CaO}$  and  $\text{Ca(OH)}_2$  content, the appropriateness of possible exemptions (like the one already existing for 17 01 01 concrete).
  - Wastes from power stations and other combustion plants, i.e. ashes (10 01) is one of the waste streams under discussion
  - Potential exemptions shall be restricted to waste streams where no environmental risks are associated to the  $\text{CaO}/\text{Ca(OH)}_2$  content  
→ “environmental risks” have yet to be specified



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## Outlook

- **International cooperation** is needed in order to push for a meaningful solution regarding the classification of wood ashes in order to maintain the sound and sustainable utilization of wood ashes in the future!





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