Sustainable Inland Navigation – The Regulatory Framework

Gernot PAULI
Chief Engineer of the Central Commission

Strasbourg, 19th January 2011
Content of the presentation

- Tanker accident MV Waldhof 13.1.2011 on the Rhine
- Regulatory framework for inland navigation (technical regulations)
- Regulations and sustainability
- Key sustainability issues
Tanker accident MV Waldhof 13.1.2011 – background information

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Tanker accident MV Waldhof 13.1.2011—background information

- Middle Rhine (Bingen to Koblenz)
- UNESCO World Cultural Heritage
- Difficult to navigate (bends, currents)
- Traffic management system in place
- High water at time of accident
- Modern vessel, German owner
- Full load (2500 tons) of sulfuric acid
Tanker accident MV Waldhof 13.1.2011—current status

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Foto: Holger Weinandt
Tanker accident MV Waldhof 13.1.2011—current status

- Sudden capsize, no other vessel involved
- Cause of accident to be investigated
- 2 of 4 crew missing
- No cargo leakage
- Position of vessel unstable (local erosion) *
- Navigation interrupted in both directions
- Salvage equipment to arrive within 5 days

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Technical regulations (recommendations) for inland navigation in Europe (1/2)

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<th>CCNR</th>
<th>EU</th>
<th>UNECE</th>
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<td>RheinSchUO</td>
<td>Directive 2006/87/EC</td>
<td>Resolution 61</td>
<td>Recommendation</td>
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<td>(technical requirements for vessels)</td>
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<td>Air pollutants</td>
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Technical regulations (recommendations) for inland navigation in Europe (2/2)

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<td>DFND</td>
<td>Directive 2008/68/EC</td>
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<td>Directive 2005/44/EC</td>
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Environmental objectives of regulations concerning inland navigation

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<th>Objectives</th>
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<td>Fuel quality (2009/30/EC)</td>
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<td>Water / nature protection (2000/60/EC, 92/43/EEC)</td>
<td>Environmental sustainability</td>
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Inland navigation – more sustainable than other modes of transport

Average external costs on selected transport routes in Europe

- Accidents
- Noise
- Air pollution
- Climate gases

Source: PLANCO, Verkehrsträgervergleich, 2007, Essen
Inland navigation – smallest carbon footprint in land transport

Source: Gernot Pauli / Natural Resources Forum 34 (2010) 236-254

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Inland navigation – perspectives for alternative fuels

- Current situation: 99% mineral oil based fuels → unsustainable resource use
- Medium term: natural gas, electric propulsion → less CO₂, less pollutants, unsustainable
- Long term: bio fuels (liquid, gas), hydrogen (fuel cells) → most likely sustainable
- In 2011 CCNR adaptation of regulatory framework to enable use of alternative fuels

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Inland navigation – reducing the impact on the aquatic environment

- Cooperation with river protection commissions (ICPR, ICPDR)
- Contributing to implementation of Water Framework and FFH Directives
- Encouraging examples
Conclusions

- Inland navigation not without accidents, but safer than other modes of transport
- Up-to-date regulatory framework needed for safe transport
- Inland navigation not yet sustainable, but more sustainable than other transport modes
- Modern regulatory framework supports shift to sustainable transport
Thank you for your attention!

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