

**Preliminary**  
**Summary and Conclusions**  
*Low Sulphur Fuel for Inland Waterway  
Transport in Europe*

Round Table of the Central Commission  
for Navigation on the Rhine (CCNR)  
3 May 2007, Strasbourg

prepared by the secretariat of the  
Central Commission for Navigation on the Rhine  
[www.ccr-zkr.org](http://www.ccr-zkr.org)



# Introduction

(table 1 of 2)



---

The following summary and conclusions

- reflect views of stakeholders & government representatives, but not European Commission
- must be seen together with presentations & statements of stakeholders ([www.ccr-zkr.org](http://www.ccr-zkr.org))
- are meant to inform non-participating stakeholders & decision makers about outcome
- reflect differing views as much as practically possible

# Introduction

(table 2 of 2)



- 
- Differing views on certain aspects prevail as result of different interests, experience, ...
  - Europa specifically sees
    - only justification for ultra low sulphur marine diesel in enabling tighter emission limits
    - also other sulphur content than 10 ppm & other technical requirements than EN 590 as possible
  - Certain group of ship owners wants to fix date for introduction of ULSD only after all technical questions are resolved

# 2-Step or 1-Step Switch Over (Transition) to ULSD

---



- 2 steps suggested by European Commission (300 ppm 31.12.2009, 10 ppm 31.12.2011)
- 1 step favoured by EBU/ESO, UPEI, A, D, NL, INE (NL: 10 ppm 2010; D: 10 ppm 2010/2011)
- In addition to already foreseen switch in 2008 (2000ppm to 1000 ppm, Directive 1999/32/EC)

# Parallel Supply of Different Fuel Grades; Fast Track

---



- Parallel supply & fast track permitted by fuel directives
- 1 grade favoured by EUROPIA
- 1 grade & 1 harmonized introduction date strongly supported by Euromot, UPEI, EBU/ESO, INE, A
- A favours keeping fast track for closed off, environmentally sensitive areas, such as lakes
- D sees perhaps need for transitional measures

# Availability of ULSD; Necessary Lead Time

---



- Euromot: minimum 1 year before next stage of emission limits
- UPEI: no logistical need for lead time
- EBU/ESO, A, CH: introduction as soon as possible after answering key questions

# Additional Fuel Production & Other Costs; Savings

---



- No reliable data; 1 to 4 cents per litre
  - 300 ppm → 50 ppm: **1 c/l** (European Commission, IWT)
  - Gas oil → road fuel: **2,5 c/l** (INE)
  - Light Heating Oil → road fuel: **3-4 c/l** (EBU Bunkering)
- EBU, UPEI: with 1-step approach no significant logistical cost
- EBU: likely other costs such as additives or alterations of engines
- CESA: possible savings due to lower maintenance costs

# Quality Requirements; Need for Dedicated IWT Fuel?

---



- Fuel directives deal with environmental aspects (European Commission: technical aspects to be regulated by CEN, such as EN 590)
- EUROPIA: for practical considerations heating oil or road fuel
- Euromot, EBU/ESO, INE: road fuel EN 590
- Euromot, A: no dedicated IWT fuel
- D: minimum quality requirements



# Blending with Bio-fuels



- 
- Fuel directives no limits  
(European Commission: bio-fuel blending is technical aspect regulated by EN 590 & asked CEN to reconsider current limit of 5% for FAME)
  - Euromot: generally up to 5% FAME, higher blends & other qualities case based
  - UPEI: bio-fuels supports “greening” of IWT
  - Possible negative effects of introduction of bio-fuels (blends) in IWT need to be examined

# Compatibility of Engines & Heating Systems with LS Fuel



- 
- Euromot: no general guidance possible; issue is fuel quality; in-use test program suggested
  - EUROPIA: in-use test program suggested
  - EBU/ESO: fuel quality & lube oil important
  - CESA: no compatibility problem, if better fuel quality; no problem for heating systems
  - INE: with EN 590 ULSD unproblematic for vast majority of engines; additives for engine at end of their lifecycle

# Relevant Studies; Information Needs

---



- CREATING sees ULSD as prerequisite for emission reductions
- SPB study proposes certain fuel qualities
- BMVBS study of engine compatibility, available summer 2007
- TNO study on cylinder lacquering, June 2007
- Stakeholders requested to state engine compatibility with ULSD, bio-fuel blends and describe necessary measures for existing engine (engine alterations, lube oil, additives)

# Main Conclusions of Round Table

(table 1 of 2)



1. Navigation sector & governments want ULS fuel asap for better environment & image  
(early introduction stimulates innovation in exhaust reduction technology; later introduction gives more time to solve problems & develop transitional measures)
2. Measures to be developed & introduced for operation of certain older engines with ULSD
3. 1 step to 10 ppm requested  
(in addition to already foreseen step 1000 ppm in 2008)

# Main Conclusions of Round Table

(table 2 of 2)



- 
4. Fuel with 10 ppm S requires EN 590 parameters – should be clearly regulated
  5. Main environmental benefits arrive from tighter emission limits (next stages currently suggested from 2012 and 2016 onwards)
  6. Fuel consumption of IWT overall insignificant (less than 1 - 3 % of total diesel consumption)
  7. Expected additional fuel cost of some 2.5 cents per litre; other costs to be expected as well (additives, engine alterations, ...)

# Legislative Process

(table 1 of 2)



- 
- CCNR: Mai 07 to report outcome of Round Table to governments & EP rapporteur
  - EP: *preliminary* timetable sees decision making between June 07 & Jan 2008
    - June 07 discussion of rapporteur's working doc
    - July 07 stakeholder hearing
    - Sept 07 discussion of report in committee
    - Nov 07 committee vote
    - Jan 2008 plenary vote

# Legislative Process

(table 2 of 2)



- 
- Council: difficult decision making expected because of non-IWT issues
  - Legislative process can still be influenced by stakeholders

# Roadmap



- 
- Analysis of results of BMVBS & TNO studies in summer 2007
  - In-use test program by stakeholders & development of possible additional measures to be finished by 2009
  - 1.1. 2010 mandatory and harmonized introduction of ULSD – 10 ppm, EN 590 (date depending on legislative process; 1.1.2011 would be sufficient for next step exhaust regulations & would give more time to develop transitional measures)



**The CCNR wishes to thank all participants for their valuable contributions!**

Presentations and additional information are available at [www.ccr-zkr.org](http://www.ccr-zkr.org)

