Bonn-OSINet

Oil Spill Identification Network of Experts within the Bonn-Agreement

Bonn Agreement
Accord de Bonn

Why

The 'TRICOLOR' is a 1987 built Norwegian flagged vehicle carrier, which, in the early hours of 14 December 2002, was struck by 'Kariba', a 1982 built Bahamian flagged container ship in the French Exclusive Economic Zone some 20 miles north of the French coast in the English channel.

TRICOLOR sank as a result of the impact of the striking and was eventually declared a total loss. In December 2002 French authorities ordered the TRICOLOR to be removed, as it was perceived to represent a danger to shipping and the environment.

- *The beaches of three countries were involved: France, Belgium and The Netherlands.*
- *Five laboratories analyzed different samples: Fr(Cedre), Be(MUMM, LOVAP), NL(WD) and GE(BSH).*
- *NL received one source sample from a tank, that was emptied before, while the ship has eight fuel tanks with two different loads.*
- *After the case a source sample was exchanged between Cedre and WD*
- *NL reviewed the report of MUMM but had comments on the method in which the conclusions were drawn.*
- *The results of LOVAP were not acceptable and the samples were reanalyzed by M-scan (UK) according to a draft version of the current CEN/TR guideline (released in December 2006).*
- *No match could be found between the source and spill samples.*

Deck of the „Neuwerk" during combating of the „Prestige" oil spill.

What

- *Good sampling is essential*
- *A good general accepted method is essential*
- *Analyzing personnel must be skilled => experts*
- *Countries should work together*

- ***In September 2005 Bonnagreement starts Bonn-OSInet with Gerhard Dahlmann (BSH) as convener***

How

- Each country assigns a laboratory that should analyze their oil spill samples and should be involved in Bonn-OSINet.
- An annual ring test is organized to test the laboratories and to improve the method.
- An annual meeting to meet each other in order to exchange information, work on common methods and to discuss cases and ring test results.
- Sampling has to be described in a manual.
- The analytical method has to be described, accepted and used by all laboratories.
- The exchange of analytical results is easier than the exchange of samples.
- A common database of crude oil and oil cases would be useful.

Results: Laboratories

Each country assigns a laboratory that should analyze their oil spill samples and be involved in Bonn-OSINet.

Belgium	Patrick Roose	MUMM
Denmark	Pia Lassen	NERI
France	Julien Guomarch	Cedre
Germany	Gerhard Dahlmann	BSH
Ireland	Gordon Todd	ERT
Netherlands	Paul Kienhuis	RWS-WD
Norway	Per Daling and Liv Guri Faksness	Sintef
Sweden	Magnus Kallberg and Helen Turesson	SKL
United Kingdom	Gordon Todd	ERT

Representatives of other countries join the meetings:
Finland, Estonia, Latvia, Spain, Italy, Brazil, US, China.

Results: Manuals

Sampling has to be described in a manual.
The analytical method has to be described and used by all laboratories

- *In 2000 a CEN working group started to improve the Nordtest method. Initiative of Norway.*
- *In 2001 the method was presented at a meeting in Hamburg and the working group was enlarged. Mainly by laboratories within Bonnagreement.*
- *CEN/TR 15522-1 published Dec 2006 deals with sampling*
- *Bonn agreement sampling manual by Sweden closely related to CEN/TR 15522-1*
- *CEN/TR 15522-2 published Dec 2006 describes the analytical method. The method was however not general accepted.*
- *Bonn-OSInet works on a second version of CEN/TR 15522-2 to improve the analytical part*
- *Issues: Conclusion definitions, normative ratios, analytical method needed for the COSI database, PW-plots.*

Results: Ring tests

An annual ring test is organized to test the laboratories and to improve the method.

Year	Subject	Participants	Results
2004	Gas oil case from the Netherlands Issue: open method	16	Sample type has been added to the draft of CEN/TR
2005	Bilge Issues: open method and evaporation	12	Ratio calculation has been improved
2006	Russian oil Issues: recognition of the oil type	13	Available at the labs and added to the database.
2007	Samples Tricolor Issues: CEN/TR, ratios and PW plots	19	Introduction of PW plot to all labs and the variability of ratios
2008	Crude oil case from Norway Issues: testing mixing	23	The use of PW plots to estimate weathering, mixing and analytical variability
2009	Case with CSIC (Spain) Issues: mixing and biological degradation	24	
2010	Organized by NCSEMC (China)		

Results: Working together

The exchange of analytical results is easier than the exchange of samples. A common database of crude oil and oil cases would be useful.For both issues a common protocol, describing each detail, is needed.

- *This is available now in the second version of the guideline as suggested method and is accepted by all participants.*
- *Gerhard Dahlmann has developed and steadily improved a database called COSI.*
- *The database contains about 250 crude oils and in total about 1200 samples.*
- *The database is used by Ge, NL and Estonia.*
- *Sweden and Belgium will join, when the international version is ready.*
- *Other laboratories are interested.*

General results:

- *The level of knowledge of the laboratories has increased remarkable.*
- *Difficult cases are discussed and information is exchanged frequently and easily.*
- *The activities and method of Bonn-OSInet is appreciated and accepted more and more worldwide.*

Goals:

- ***Further improvement of the knowledge about oil spill identification/comparison***
- ***Working on an ISO method***
- ***Working together with sample takers i.e. OTSOPA***

Contact Bonn Agreement:
secretariat@bonnagreement.org

www.bonnagreement.org

Contact Bonn-OSINet:
Gerhard.Dahlmann@bsh.de
Paul.Kienhuis@rws.nl