



ISCO NEWSLETTER

The Newsletter of the International Spill Response Community
Issue 356, 15 October 2012

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News

EUROPE: LICENCE TO DRILL? ONLY IF FIRMS CAN PAY FOR SPILLS, SAY ENVIRONMENT MEPS

Oil firms must be held liable for the costs of any potential environmental damage - and have the means to pay - or else be denied licences to drill in EU waters, said environment committee MEPs voting on draft offshore oil and gas safety legislation on Wednesday.

"Legislation should more clearly require operators to put in place the financial guarantees necessary to cover the costs of clean up and compensation in the event of a major accident. This is in line with a key principle of EU environmental legislation - that the polluter should pay", said rapporteur Justas Paleckis (S&D, LT).

The new legislation will set minimum European standards for offshore oil and gas safety, regulating licensing, emergency plans and decommissioning of platforms. Operators will be obliged to reduce the risk of a major accident to the greatest extent possible.

MEPs tightened draft provisions on liability. Member state authorities should only grant licences to firms to explore and exploit offshore oil and gas if they have "adequate financial security" enabling them to pay for "full clean up or compensation" if there is fallout from their activities, especially for any environmental damage, says the committee.

Authorities should take into account companies' prior involvement in incidents worldwide - and the transparency and effectiveness of their responses - when granting licenses, said a majority within the committee.

The European Maritime Safety Agency (EMSA) should have a beefed-up role, with oversight powers for inspections and the capacity to provide member states with technical and scientific advice, or help in the event of a spill, say MEPs.

The environment committee approved its opinion by 55 votes to 10, with no abstentions. The committee shares responsibility for the draft legislation with the industry and energy committee, which is due to vote on 8 October.

Final approval of the legislation will require agreement between Parliament (in plenary) and member states (in Council). Source: [European Parliament News](#)

USA: OIL IN NEW GULF SLICK MATCHES THAT OF 2010 SPILL

October 11 - The oil in a slick detected in the Gulf of Mexico last month matched oil from the Deepwater Horizon spill two years ago, the Coast Guard said Wednesday night, ending one mystery and creating another.

"The exact source of the oil is unclear at this time but could be residual oil associated with the wreckage or debris left on the seabed from the Deepwater Horizon incident," the Coast Guard said. *The Washington Post* [Read more](#)

S. KOREA LABELS CHEMICAL LEAK AREA 'DISASTER' ZONE

October 8 - The South Korean government on Monday designated an area hit by a toxic chemical leak as a "special disaster" zone, after more than 3,000 people were treated for ailments ranging from nausea to chest pain.

The September 27 incident at a chemical plant near the southeastern city of Gumi resulted in the leakage of eight tonnes of hydrofluoric acid that caused widespread damage to crops and livestock. *Terra Daily* [Read more](#)

NIGERIA OIL SPILLS: SHELL REJECTS LIABILITY CLAIM



Four Nigerian farmers, seated in a Dutch court on Thursday, accuse Shell of damaging their livelihood. The case could set an important precedent.

October 11 - The Anglo-Dutch oil giant Shell has rejected claims by four Nigerian farmers that it should pay compensation for damage to their land.

The farmers are suing the company in a civil court in The Hague, claiming oil spills ruined their livelihoods.

Shell's lawyers told the court it could not be held liable because most spills were caused by criminal damage. *BBC News* [Read more](#)

Shell Faces Oil-Spill Compensation Claims

October 11 - [Royal Dutch Shell](#) PLC Thursday appeared in court in the Netherlands for the first time over the actions of one of its foreign subsidiaries, facing compensation claims for environmental damage from oil spills in Nigeria

The case could set a legal precedent over how Dutch companies are held responsible for the actions of their foreign subsidiaries.

The suit has been brought by environmental group Friends of the Earth Netherlands and four Nigerian farmers, who are seeking compensation over claims that oil spills from Shell pipelines in Nigeria have damaged their livelihood. They also say they want the Anglo-Dutch oil company, headquartered in The Hague, to complete a cleanup of the spills. *The Wall Street Journal* [Read more](#)

USA: NATIONAL GRID SHARES DETAILS OF PAERDEGAT BASIN OIL SPILL

October 8 - When we first broke the story about the [Paerdegat Basin oil spill](#), in which an estimated 800 to 1,400 gallons of natural gas condensate, compressor oil and turbine oil poured into the waters near Jamaica Bay Wildlife Refuge, info was scarce. Representatives of the U.S. Coast Guard and Department of Environmental Conservation told us the spill had happened while an old pipe was being capped, but how the oil got into the water remained unclear. The company responsible for the spill, National Grid, did not respond to requests for comment.

National Grid has now weighed in, issuing a press release late last week that indicated the spill actually happened on land. Firefighters responding to complaints of a smell of natural gas in the neighborhood, created by the release of mercaptan, an additive that gives the gas its odor, arrived at the scene and flushed the oil and residue from the ground and into storm drains, which flowed into Paerdegat Basin. *Sheepshead Bites* [Read more](#)

USA: EXXON SUED OVER YELLOWSTONE RIVER OIL SPILL

October 8 - Fourteen landowners filed a lawsuit against Exxon Mobil Corp. last week, claiming that the company spilled an estimated 1,500 barrels of crude oil into the Yellowstone River after ignoring warning signs.

Landowners claim that last year's spill could have been avoided had Exxon shut down operations during severe flooding in July. The plaintiffs claim that their property and livestock has suffered due to exposure to oil. Around 70 miles of the riverbank were

News (continued)

contaminated, causing "more property damage than all other accidents in Montana over the last decade combined," the [Huffington Post reports](#). *Energy Digital* [Read more](#)

GREEK TANKER ORFEAS MISSING IN GULF OF GUINEA

October 8 - A Greek tanker carrying 32,000 tonnes of gasoline has been reported missing in the Gulf of Guinea, raising fears it may have been hijacked by pirates.

The Orfeas, with a crew of 24, was due to discharge its cargo at the port of Abidjan in the Ivory Coast on Saturday. Instead it "sailed south without orders or explanation", the Grace Management shipping company said in a statement. *BBC News* [Read more](#)

Pirates released Greek tanker Orfeas

October 9 - Pirates released Greek tanker Orfeas at around 10:30 UTC Oct 9 after an ordeal which became ordinary for Gulf of Guinea hijacks; stealing part of cargo and ransacking vessel and crew. *Maritime Bulletin* [Read more](#)

USA: ENBRIDGE ORDERED BACK TO KALAMAZOO RIVER FOR MORE CLEAN-UP

October 7 - The U.S. Environmental Protection Agency [has ordered](#) Enbridge back to the site of the largest onshore oil spill in U.S. history to clean up remaining pools of bitumen in the Kalamazoo River.

Despite an unprecedented \$800-million two year clean-up of one million gallons of oil (200,000 gallons more than Enbridge reported spilled), the EPA is still finding submerged bitumen contaminating a 38 mile stretch of the Kalamazoo River.

The beleaguered proponent of the controversial Northern Gateway project [has ten days](#) to respond or to submit work plans to clean up the remaining bitumen contamination. *The Hook* [Read more](#)

CANADA: ENBRIDGE OIL LEAK DETECTION EFFECTIVENESS CAN'T BE KNOWN UNTIL PIPELINE IS BUILT, LAWYER TELLS HEARING

Enbridge seeks to transport oil by pipeline to B.C. coast. Photograph by: Chris Schwarz, Postmedia News

October 10 - The ability to detect leaks along the proposed Northern Gateway pipeline won't be known until the pipeline is built and pumping oil through the remote wilderness of northern British Columbia, a lawyer for the province noted at a hearing deciding the pipeline's fate.

Chris Jones grilled a panel of company experts on the design of the 1,100-kilometre pipeline that would deliver oil from the Alberta oilsands to a tanker port on the B.C. coast.

"So is what you're telling me that the actual sensitivity of a pipeline. Perhaps this pipeline, along with other ones can only be determined when it's actually been constructed and you're able to test that actual pipeline in operation?" Jones asked on the second day of environmental assessment hearings in Prince George, B.C.



"We have quite an operating history.... It's not an issue of trust us, wait 'til construction," answered Barry Callele, director of pipeline control systems and leak detection for Enbridge Pipelines Inc.

Testing is and has been under way, Callele said, and test results show the estimates provided in the project proposal are conservative. *The Vancouver Sun* [Read more](#)

EUROPEAN PROJECT SPRES ON OIL SPILL PREVENTION AND RESPONSE AT LOCAL SCALES

OCTOBER 9 - The second meeting of European project SPRES on Oil Spill Prevention and Response at Local Scales was held at Cedre, France, on 18 and 19 September 2012. The project is partially funded by the transnational Atlantic Area Programme and aims to generate operational forecast models at local scales (estuaries and ports) through the development of high-resolution oceanographic systems.

News (continued)

These models will be combined with local contingency plans based on a risk assessment and the characteristics and sensitivities of the relevant shorelines. Coordinated by the Environmental Hydraulics Institute of Cantabria (Spain), SPRES covers 4 sites in the Atlantic area: Aveiro Lagoon, Santander Bay, the Port of Falmouth and Belfast Lough. It involves 7 partners: 2 for Portugal (LNEC and CESAM), 2 for Spain (IHC and AZTI), 2 for the UK (PoF and AFBI) and Cedre for France. Cedre is the leader of the work package on contingency planning (WP 6), focusing in particular on the definition of strategies and techniques for sensitive site protection and shoreline clean-up. *Spill International* [Read more](#) For more info on SPRES visit <http://www.spresproject.eu/>

RUSSIA: ENVIRONMENTAL MONITORING IN PETER THE GREAT BAY

October 5 - In August and September 2012, ScanEx RDC, Russia, worked with partners to complete a project on satellite-based monitoring of the environmental situation in the Russian sector of the Sea of Japan.

Five satellites with optical and radar equipment were used for maritime area imaging. Integral maps of water area pollution by oil and the navigation and shipping situation were obtained as a result, including the intensive boat traffic, fisheries and marine park areas.

The main sources of [oil](#) spills are discharges from ships along the shipping routes and within the fishing areas. Perspectives of satellite imagery technology application for control of illegal navigation within protected marine parks were demonstrated. Satellite imagery results proved the urgency of the transboundary transfer problem in south-western part of the Peter the Great Bay and adjacent [water](#) areas. *Spill International* [Read more](#)

Also, more info on Scanex website at <http://press.scanex.ru/index.php/en/news/item/3602-zpv>

BAHRAIN: BAPCO CONDUCTS AN OIL SPILL EXERCISE IN BAHRAIN WATERS

October 9 - Bahrain Petroleum Company and the Oil Spill Response Limited, OSRL have jointly conducted an Oil Spill Response exercise.

The exercise was designed to create a greater awareness of activities that need to be addressed during the various phases of the response process.

The exercise focused on the following areas coordination between Bapco and ORSL teams, the process command, Information liaison and Media, operations, planning, logistics, finance and administration and documentation. *Steel Guru* [Read more](#)

WRECKED LPG FREIGHTER REMOVED FROM TAIWAN, CHINA, STRAIT



Stranded LPG OBERON in early 2012

October 9 - Following four months of challenging operations and weather delays, **RESOLVE Salvage & Fire, (ASIA) Pte Ltd.** has announced completion of the wreck removal of the freighter LPG OBERON from the Taiwan, China, Strait.

The Oberon, loaded with volatile Liquid Petroleum Gas (LPG) 1-Butene, had grounded and sustained extensive hull damage early this year, seven miles from the Penghu archipelago and 30 miles northwest of Kaohsiung, Taiwan, China.

RESOLVE's salvage plan was favored by the owners and underwriters because the wreck removal proposal included the task of first removing the hazardous LPG cargo, an environmentally sound approach that involved transfer of the gas to another LPG carrier before the wreck removal operation could begin.

Initially, there were many areas on the wreck where RESOLVE teams worked in lower explosive level (LEL) conditions. Until the leaking LPG was entirely removed from the vessel tanks, Oberon posed a threat of explosion and severe environmental damage to the ecosystem and reefs as well as local populations and fishing villages in the vicinity of the wreck.

The Maritime Executive [Read More](#)

[Resolve Salvage & Fire, (ASIA) Pte Ltd. is a sister company of ISCO Corporate Member, Resolve Marine Group, Inc.]

NETHERLANDS: SABA BANK DESIGNATED PARTICULARLY SENSITIVE SEA AREA BY IMO MARINE ENVIRONMENT PROTECTION COMMITTEE

October 10 - The Saba Bank, in the north-eastern Caribbean area of the Kingdom of the Netherlands, was formally designated as a Particularly Sensitive Sea Area (PSSA) by the Marine Environment Protection Committee (MEPC) of the [International Maritime Organization \(IMO\)](#), when it met for its 64th session from 1 to 5 October 2012, at IMO Headquarters in London. *The Maritime Executive* [Read more](#)

NEW ZEALAND: 11 NEAR MISSES IN SHIPPING INCIDENTS SINCE RENA GROUNDING PROMPTS CALL FOR ACTION

October 10 - The New Zealand government has been informed of eleven (11) close calls or near misses regarding ship accidents – ranging from tankers to passenger vessels – since the infamous Rena disaster happened just over a year ago. Marine experts insist that this exemplifies the need for more enforced control.

From October 2011's Rena grounding in the Bay of Plenty to the end of September 2012, Maritime New Zealand reported two (2) "near misses" involving passenger vessels, four (4) connected to containerships, two (2) close calls each in regards to tankers and cargo ships, and one (1) bulk carrier almost-incident. All of these ships were foreign-owned. *The Maritime Executive* [Read more](#)

USA: FOSC ISSUES NOTICE OF FEDERAL INTEREST TO BP AND TRANSOCEAN

October 10 - The Federal On-Scene Coordinator for the Deepwater Horizon oil spill in New Orleans issued a Notice of Federal Interest to BP and Transocean Tuesday.

Coast Guard Capt. Duke Walker issued the NOFI following sample results from an oil sheen located in the vicinity of where the Deepwater Horizon drill rig exploded and sank more than two years ago.

The sheen was first reported to the National Response Center Sept. 16 by BP based on satellite images from the 9th and 14th overpasses in the Mississippi Canyon, block 252, approximately 50 miles off the coast of Louisiana. The sheen is not feasible to recover and does not pose a risk to the shoreline.

The Coast Guard, in concert with BP and NOAA, has conducted regular assessments of the sheen by aircraft and boat since its discovery. The observed sheen size has varied over time depending upon the conditions present. Samples of the sheen were taken by Coast Guard Marine Safety Unit Morgan City Sept. 26 and sent to the Coast Guard Marine Safety Lab in New London, Conn. The Marine Safety Laboratory results indicate the sheen correlates to oil that originated from BP's Macondo Well. The exact source of the sheen is uncertain at this time but could be residual oil associated with wreckage and/or debris left on the seabed from the Deepwater Horizon incident in 2010.

The NOFI effectively informs BP and Transocean that the Coast Guard matched the sheen samples to the Deepwater Horizon spill or sunken drilling debris and that either party or both may be held accountable for any cost associated with further assessments or operations related to this sheen.

The Gulf Coast Incident Management Team remains committed to the continued cleanup of the Gulf Coast and all shorelines affected as a result of the Deepwater Horizon oil rig explosion. The FOSC is determined to continue response activities to remove all oil where it is technologically feasible, environmentally beneficial and safe for workers to perform recovery operations. The public is reminded to contact the National Response Center at 1-800-424-8802 to report all pollution incidents or the Coast Guard 8th District command center at 504-589-6225 in the event of any marine emergencies. *FOSC Notice*

People in the news

WISTA PERSONALITY OF THE YEAR AWARD GOES TO INTERTANKO'S KATHARINA STANZEL



At the Women's International Shipping and Trading Association (WISTA) meeting of the National WISTA Association Presidents held in Paris on October 3rd, INTERTANKO's Katharina Stanzel was voted the 2012 WISTA Personality of the Year. Her nomination had been submitted for consideration by WISTA UK.

In 2012 Katharina was unanimously voted as the fifth Managing Director since the Association's foundation in 1970 - she is the first woman to take this position. *The Maritime Executive* [Read more](#) [INTERTANKO is an Industry Partner of ISCO]

AN OPEN LETTER TO ENVIRONMENTAL NGOS

Dr Douglas Cormack, Honorary Member of ISCO, has written an open letter to those NGOs that continue to support scientifically unproven beliefs that inhibit the application of cost-effective strategies for spill response.

The international Spill Control Organisation (ISCO) is currently producing a knowledge-based contingency plan for marine incidents which will be available to the member states of the International Maritime Organisation (IMO) through its Marine Environment Protection Committee (MEPC).

This contingency plan will be based on the fate and effects of oils and so-called hazardous and noxious substances (HNS) as controlled by the interaction of their physicochemical properties with atmosphere, sea and shorelines; the means by which such releases may be curtailed; the effectiveness of release- response equipment and techniques assisted by natural evaporation, dispersion, solution and bio/ oxidative degradation; and the means by which recovered materials may be recycled or processed for recycling/disposal should viscosity necessitate recovery: all such knowledge having been acquired by laboratory, sea and shoreline experimentation with oil/HNS released deliberately and/or by incidents.

However, knowledge-based contingency planning for restoration of the marine environment to its pre-incident state as quickly and cost-effectively as possible has thus far been thwarted by beliefs that organism contact with oil/HNS causes species-extinction/ecological-disaster; that dispersants increase such contact by increasing natural dispersion rates and thus must be prohibited or limited to arbitrary deepwater-distances from shore, despite the direct coating of sea/shoreline organisms being prevented or reduced by dispersion whether natural or dispersant induced; that oil/HNS and dispersants are toxic despite their biodegradation to carbon dioxide and water being but a small component of the entire biomass degradation which only oxygen-depletion interrupts to form so-called fossil fuels.

Thus, to prevent knowledge-based planning being thwarted by belief-based objections this time round, ISCO now invites environmental NGOs to differentiate belief from knowledge by the reality-evaluation which transforms the former to the latter as in craftsmanship, science and technology; to differentiate environmental knowledge from environmentalist belief by noting the presence or absence of reality-evaluation; to accept the environmental knowledge which already refutes some environmentalist beliefs; to transform remaining beliefs to positive or negative knowledge by reality-evaluation or to suspend them pending this transformation. Document OPRC-HNS/TG 14/5/5 thus definitively identifies these beliefs and derives hypotheses from them to facilitate their reality-evaluation.

In brief, the questions to be answered are as follows. Why should we continue to expect species-extinction/ecological-disaster when neither has arisen in the 45 years since the *Torrey Canyon Incident*? As to physical coating by oil/HNS, why should we believe in such extinction/disaster while the numbers of individuals thus killed per species have yet to be compared with the annual death/birth rates which maintain species populations at current levels? As to exposure-concentrations to oil/HNS, why should we believe in such extinction/disaster while the thickness of floating layers limits them to producing no more than 100ppm were they to be instantaneously dispersed/dissolved into the top metre of the sea, while the actual concentrations in the top metre are of the order of 10ppm oil and 0.5ppm dispersant at the operational oil: dispersant application ratio of 20:1, while these diminish to zero by depth-dilution and biodegradation, and while the concentrations needed to measure LC₅₀ values are 2-3 orders of magnitude higher than those only transiently present in the top metre? Again why should we expect such extinction/disaster on shore while re-colonisation of shorelines by planktonic life-stages is unending? Yet again, why should we believe in anthropogenic global warming while photosynthesis and biodegradation continuously recycle carbon dioxide through the atmosphere and the total sea and land biomass, while the Urey reaction product and its volcanic decomposition recycle carbon dioxide through the atmosphere and carbonate rock, and while we combust only part of a fossilisation but for which its carbon dioxide equivalent would already be recycling through the atmosphere biologically and geologically. Document OPRC-HNS/TG 14/5/5 suggests that the above beliefs be reality-evaluated as specific hypotheses if they have not already been refuted by current knowledge.

Thus, NGOs are invited by ISCO to accept knowledge, to reject beliefs already refuted by knowledge, to reality-evaluate remaining beliefs to positive or negative knowledge or to suspend them pending such reality-evaluation, and thus to reply to ISCO at info@spillcontrol.org

SOME THINGS TO REMEMBER IF AT SOME TIME YOU SUDDENLY FIND YOU ARE NO LONGER RECEIVING THE ISCO NEWSLETTER

From time to time people complain that they are no longer receiving the Newsletter. This can happen if ...

- Your email address has changed and you forgot to advise the ISCO Secretariat. (*Send your updated address to the ISCO Secretariat*)
- If, for any reason, delivery of the Newsletter gets bounced three times your name will be automatically removed from the mailing list. (*Notify the ISCO Secretariat*)
- The setting on your spam filter has started putting the Newsletter in a spam folder. (*You can usually correct this by opening your spam folder, finding and clicking on a recent delivery of the Newsletter, then following the instructions*)
- For some reason receipt of the Newsletter is being blocked at your end. (Ask your IT department to correct this)
- You may have inadvertently clicked on "unsubscribe" in the covering letter accompanying the Newsletter. (*Notify the ISCO Secretariat*)

If you need any help, report the problem by dropping a line to info@spillcontrol.org

BALTIC RISK ASSESSMENT AND DECANTING SETTLED-OUT WATER DURING OIL SKIMMING OPERATIONS

Comment from Sjon Huisman, Senior Advisor, Netherlands Response Organisation.

Sir - "With interest checked and read the newsletter.

Be advised that besides BALTIC risk analysis, under the BONN AGREEMENT BE-AWARE project both COWI from Denmark and MARIN from the Netherlands are cooperating with the project partners to realise a risk-analysis for the wider BONN AREA. Could be of interest to readers to draft an article on this.

Secondly, the MEPC document on discharging decanted water attracts my attention. NL has many response vessels that use that system of effectively use the storage capacity by pumping overboard the "clean" water after settling of the oil/water mixture".

Editor – "The ISCO Newsletter will take up this suggestion and print an article on Risk Analysis for the wider Bonn Agreement Area. On the matter of decanting, Very interested to hear that in the Netherlands decanting is being allowed. I assume the government has given a dispensation from requirements of MARPOL Annex 1. Does this apply to state-owned response vessels only or to private response contractors too?"

Further comment from Sjon Huisman – "With regard to decanting. We are in charge of all oil response measures and therefore always will be the authority to permit the discharge. There might be conditions, depending on the vulnerability of the area we are working. You can imagine that the Wadden Sea is an exception, no discharge there".

SUPER ABSORBENT POLYMER (SAP)

John S. Brinkman of ISCO Corporate Member, Imbttec Imbibitive Technologies Corp. comments on the article "Complete solution for oil spill clean-up" in last week's Newsletter.

Sir - It was with interest that I read about the oil-sensitive **Super-Absorbent Polymer (SAP)** in ISCO Newsletter #355. The article in ISCO #355 pretty much describes what **Imbibitive Technologies (IMBTEC)** has been producing for the past 18 years in the form of our flagship "oil-sensitive" SAP, **Imbiber Beads®**. The ability of Imbiber Beads® to absorb many, many volumes of oil per volume of Imbiber Beads® is well-documented.

Some background information - while Victor Mills was inventing the first "**water-sensitive**" SAP for Proctor & Gamble in 1966, which later became known by the brand name Pampers® and revolutionized the personal hygiene industry in the form of disposable baby diapers or nappies, Dr. Richard Hall was inventing the first "**oil-sensitive**" SAP while working in the Central Research Department of The Dow Chemical Company. Dr. Hall's invention became known as "**Imbiber Beads®**" as the words absorb and imbibe are synonyms and there is a lot of misinformation and confusion concerning the performance of an absorbent.

Dr. Hall first proposed the use of broadcasting "bulk" Imbiber Beads® from airplanes on catastrophic oil spills in a paper entitled "**Expansive Imbibition for Practical Pollution Particulation**" or "**Separating Things from Stuff**" in 1970. Dr. Hall identified even back in 1970 that one of the biggest problems with oil spill response operations is being able to arrive at the spill site in a timely manner, before the slick spreads to unmanageable proportions, a problem that to this day still exists.

Application of Imbiber Beads® would (in theory) allow the response to commence within hours of notification instead of the days it currently takes, and help to agglomerate the oil and keep it from spreading; thereby "buying time" for the response operation to mobilize and steam to the spill site. This logistical issue was identified by the US Office of Technology Assessment (OTA) in their report to the US Congress in March 1990, one-year after the Exxon Valdez and entitled "**Coping with an Oiled Sea**".

For your information, the OTA reported that an oil spill will spread six (6) square miles within the first twelve (12) hours with very little wind or current assistance and that the best any oil spill response operation could hope to achieve was between 10 – 15% recovery, on average. This statistic has not changed in the twenty-three years since Exxon Valdez, in spite of best intentions, and billions of dollars having been spent on recovery vessels, skimmers and booms. This fact is acknowledged by trade group organizations such as ITOPF and IPIECA and the incorporation of shore-line cleanup as an integral part of spill contingency planning.

Further to this, the increased advocacy and promotion for disposal technologies such as In-Situ Burning and Dispersants is in my opinion an admission by the oil spill response industry and its' oil industry sponsors that mechanical recovery techniques have been for the most part unsuccessful over the years since Exxon Valdez; thereby leading to increased dependence upon ISB and dispersant use.

The ability of Imbiber Beads® to transform an organic liquid such as crude oil or HNS into a semi-solid, non-sticking, recoverable mass that can be recycled using simple, well-documented thermal processing is also well-documented. Existing recovery equipment such as incline-plane skimmers can be used to retrieve the oil off of the water. It has also been suggested that something as simple as fishing nets can be used.

Correspondence (continued)

Chunks of “imbibed” oil that may reach shore will not coat flora or fauna and can literally be picked up, taken to a refinery and processed, effectively “**Closing the Environmental Loop**”.

Accordingly, the ability of Imbiber Beads® to eliminate liquids also eliminates “**secondary contamination**” of the environment and response personnel, a problem inherent with typical sorbent products. Also, the elimination of liquids drastically reduces the “rate” at which hazardous vapours are released and will reduce the concentration-in-air of vapours to below LEL in many instances.

This information was corroborated by the Maritime Disaster Prevention Center (MDPC - Yokohama, Japan) during their investigative study of mitigating technologies for HNS releases at sea from 2001 – 2007. MDPC broadcast Imbiber Beads® onto an aromatic solvent in a water-stream using their version of a fire-fighting foam monitor. As a result of their work on HNS spill mitigation, primarily for spills within harbours, ports and terminal settings, MDPC placed strategic inventories of Imbiber Beads® at twenty-three (23) identified high-risk locations throughout Japan.

<http://youtu.be/xXFy9tWzqaA> . The attached link represented is a televised interview of Dr. Hall in June 2010, during the Deepwater Horizon incident. The tests referenced during the interview were those performed by Dow Chemical and Dr. Hall. The oil used in the demonstration is Alyeska North Slope crude oil and took approx. 3 – 5 minutes to be transformed into the “beef burger” shown. The TV interviewer Liz Galardi was able to transfer the “imbibed” oil from one hand to the other without any residual oil on either hand. (Unfortunately Dr. Hall lost his battle with prostate cancer in December 2011).

While Dr. Hall proposed the use of bulk Imbiber Beads® for catastrophic oil and chemical spills “nuisance spills” occur on a much more frequent basis and can be easily dealt with by Imbiber Beads® blankets and booms. These products actually change colour in the presence of colourless fuel and solvent spills, which has proven to be an invaluable tool for responders. More information – www.imbiberbeads.com .

Science and technology

NEW METHODS MIGHT DRASTICALLY REDUCE THE COSTS OF INVESTIGATING POLLUTED SITES



This shows two employees of the UFZ in the study of groundwater, using direct push technology. This is one of several technologies that allow, in combination, contaminated sites to explore more effectively and to save costs. (Photo Credit: Photo: André Künzelmann / UFZ)

October 9 - In order to detect pollution in the subsoil, until now for the most part samples of soil and groundwater have been taken. Pollution may only be detected, however, if the samples are taken at the optimum points and in a sufficiently dense measurement network. Their accuracy determines how well the pollution can be detected.

The scientists have therefore worked on time-delayed geophysical measurements in order to improve the accuracy of the probing and also to record the effects of hydraulic changes and microbial activity.

The ModelPROBE project also integrates new methods with which important information on pollution

in the soil can be gained for example by analysing the vegetation. Based on these non-invasive site-investigation methods, the extent of the contamination and the heterogeneity of the subsoil are then localised.

"Using direct push probes with linked geophysical and hydrological probing systems and combined with chemical, toxicological and isotope analyses, so-called hot spots are then monitored in order to determine the limits of and identify the contaminated area without fear of legal action," explains the project coordinator Prof. Matthias Kästner of the Helmholtz Centre for Environmental Research (UFZ). Biological processes such as pollutant decomposition and toxic effects at the site are monitored using passive samplers, biosensors and microcosms with subsequent isotope and biomarker analyses.

Due to this complex monitoring process, scientists not only from the Environmental Biotechnology Department, but also from the Groundwater Remediation, Monitoring & Exploration Technologies, Bioanalytical Ecotoxicology and Isotope Biogeochemistry Departments were involved.

These methods were tested not only in Zeitz, but also by project partners in Italy, Norway and the Czech Republic. The aim was to gain a fresh insight into soil and subsoil contamination at different levels including integrated statistical analysis and modelling and to provide a solid foundation for future risk assessments and sustainable rehabilitation concepts. *Science Codex* [Read more](#)
See also article under Publications

HIGH-PRESSURE, HOT-WATER WASHING AND OIL SPILLS

An article from NOAA's Office of Response and Restoration



Cleanup workers spray oiled rocks with high pressure hoses following the 1989 Exxon Valdez oil spill in Prince William Sound, Alaska. (Exxon Valdez Oil Spill Trustee Council)

High-pressure, hot-water washing of shorelines is often a viable method for removing stranded oil from hard surfaces, like large rocks and seawalls. However, while effective, it can directly and indirectly injure and kill plants and animals in the treated zone, both in the short-term and long-term.

When used incorrectly, high pressure water streams may drive oil into the beach sediments where oil may become trapped or further contaminate clean areas. Washing with high pressure may drive oil from the water surface down into the water column, dispersing or emulsifying the oil, which could have additional environmental effects and require additional recovery methods.

In addition, using high pressure or large volumes of water can wash away fine sand and silt from shorelines and disrupt the structure of the beach.

Because of these considerations, we tend to be very cautious about the situations and habitats in which we recommend using high-pressure, hot-water washing. Slightly modifying this technique in a number of ways may remove the oil just as well while also minimizing possible injuries from response activities. For example, you can lower the water pressure, use a broad water fan or flow rather than a jet nozzle, or flush the area with warm or ambient temperature water.

Washing techniques, such as high-pressure, hot-water washing, should normally be combined with an effort to contain and collect the mobilized oil, or else it could wash up someplace else along the shoreline. The area being treated must first be contained with boom appropriate for the habitat and sea conditions.

Nearly all oils float on the water (although exceptions do exist), so the methods people use to collect the oil generally focus on removing the layer of oil from the water. How that layer is removed varies—but usually, when oil is washed off a contaminated beach, it is skimmed from the sea surface with special boats or oil skimmers. Cleanup workers also may use special sorbent booms that oil sticks to. These booms can then be collected and recycled or discarded.

More Information about Oil Spill Cleanup Methods

[Spill Containment Methods](#): Learn about how sensitive locations can be protected from an advancing oil slick with various kinds of equipment and tactics during an oil spill response.

[Lessons Learned From the Exxon Valdez Spill](#): OR&R's goal is to use science to better understand physical and biological recovery after an oil spill like the [1989 Exxon Valdez](#), and then apply the lessons in future spill responses. This includes the use of hot-water washing on intertidal coastlines during the *Exxon Valdez* spill.

[Has Prince William Sound Recovered From the Spill?](#) Following the *Exxon Valdez* spill, the NOAA monitoring program in Prince William Sound indicated that oiled and hot-water washed sites initially suffered more severe declines in population abundance than oiled and not-washed sites.

[Job Aids for Spill Response](#): Learn more about the job aids that OR&R has created to help oil spill responders complete their response tasks.

[EPA's Oil Spill Response Techniques](#): The U.S. Environmental Protection Agency lists more information about response methods used during oil spills, including mechanical, chemical, and biological means.

[ITOPF's Clean-Up and Response](#): The International Tanker Owners Pollution Federation offers detailed descriptions of the oil spill cleanup and response process, ranging from aerial observation of spills to the ultimate disposal of collected oil and oiled debris.



In this issue of the ISCO Newsletter we are printing No. 98 in a series of articles contributed by Dr Douglas Cormack.

Dr Douglas Cormack is an Honorary Member of ISCO. As the former Chief Scientist at the British Government's Marine Pollution Control Unit and head of the UK's first government agency, the Warren Spring Laboratory, Douglas is a well known and highly respected figure in the spill response community. He is the Chairman and a founder member of the [International Spill Accreditation Association](#)

CHAPTER 98: KNOWLEDGE OF SHORELINE CLEANING

The use of adsorption to transfer pollutant from one surface to another has already been reviewed in respect of pollutant removal from water surfaces to the surfaces of endless mops, belts and rotating discs and subsequent pollutant removal from the latter in a continuous process. However, the use of adsorbents to remove liquids from solid surfaces at home, in school and in industrial premises for final disposal of both adsorbent and adsorbed liquid, long predates the design of any continuous device. Consequently, a range of adsorbent materials were already in common use for small domestic and industrial spills to land and inland water surfaces long before the very much larger ship releases to sea and shore first came to public attention.

As to mechanism, adsorption to a material relates to pollutant adhesion to its outer surfaces and absorption to penetration of its internal channels and capillaries, the latter mechanism being more viscosity limited than the former. Again, such materials are available for use inland, on shorelines and inshore waters in small particle size to maximise external surface area and to facilitate broadcast distribution, as individual scatter-pads, or as contained in porous covers in the form of booms, this last presentation facilitating recovery of the pollutant laden material from water surfaces.

It should, however, be noted that pollutants may never penetrate to the centre the material in cylindrical form, observation of this penetration failure by cutting across such cylinders after differing exposure times, having been the reason why Erling Blomberg replaced alternate flotation pads in his Troilboom with similarly thin absorption pads to produce an absorption boom for customers who wanted one.

Though adsorbents/absorbents are useable only on a small scale, their use does increase the bulk and weight of the delivery and recovery task over that of the pollutant alone, and thus the large range of materials available makes choice a matter of cost in relation the weight of pollutant retained by unit weight of material. Thus, at a very early stage, WSL determined the weight of a range of common adsorbents required to retain 1 tonne of Kuwait crude oil or 1000seconds fuel oil, the results being those tabulated below.

Material Type	Composition	Form/Appearance	kg/ tonne Kuwait oil	
Synthetic organic	Polythene foam	Sheets	35	
		Expanded powder	400	
	Hydrocarbon polymer	Pads, Rolls	59	
		Polyurethane foam	Chips	20
		Resin-treated α -cellulose	Powder	250
		Felted vegetable fibre	Pads, Rolls	39
Natural organic	Treated wood fibre	Pads	152	
		Treated peat	Bales	189
	Fibres/inorganic granules	Bagged	142	
Inorganic	Treated clays		1333-1754	
			kg/tonne 1000s Fuel	
Synthetic organic	Polypropylene	Looped strand bundles	33	
		Plastic netting	Netting, strips	42
		Plastic mesh	Mesh strips	22

All of the above can be used inland on shorelines and on water, the clays excepted because they sink and thus can only be applied on land or shorelines. It should, at least, be noted here that in the early days the Netherlands used a sand dredger to apply a slurry of seabed sand to floating oil slicks thus returning the sand and its adsorbed oil immediately to the seabed which to keep navigation channels open would be dredged later and dumped further to seaward in the normal course of events.

More recently swelling absorbents such as those marketed as Imbiber Beads have become available. These beads have very high absorption capacities and do not extrude pollutant under external pressure.

1 The *Rational Trinity: Imagination, Belief and Knowledge*, D.Cormack, Bright Pen 2010 available at www.authorsonline.co.uk

2 *Response to Oil and Chemical Marine Pollution*, D. Cormack, Applied Science Publishers, 1983.

3 *Response to Marine Oil Pollution - Review and Assessment*, Douglas Cormack, Kluwer Academic Publishers, 1999.

Publications

NEW METHODS MIGHT DRASTICALLY REDUCE THE COSTS OF INVESTIGATING POLLUTED SITES

New methods might allow polluted sites to be investigated and monitored long term at significantly reduced costs. Authorities and those who have to remediate polluted sites in Europe might therefore be able to save costs and use these to treat other areas. This is the conclusion of the EU research project ModelPROBE, which was coordinated by the UFZ and the results of which were presented to the public on Friday 21, September 2012 at the international REMTECH Expo exhibition in Ferrara, North Italy. The results, with which the scientists aimed to lower the workload of authorities and consultants, include a handbook detailing the methods for characterising contaminated sites and a freely-accessible e-learning course. [More info](#)

NEW PUBLICATIONS FROM IMO (To download, click on the links below)

[Newsletter from IMO Publishing](#) [IMO News Magazine](#)

NEW PUBLICATIONS FROM US EPA (To download, click on the links below)

[TechDirect 1 October 2012](#) [Technology Innovation News Survey 16-31 August 2012](#)

NEW PUBLICATIONS FROM CEDRE (To download, click on the links below)

[Cedre Newsletter \(September 2012\)](#) [Information Bulletin No 29](#) (Focuses on the grounding of the container vessel *Rena*)

Events

UK – REMINDER – ARCTIC OIL SPILL CONFERENCE – LONDON, 29-30 OCTOBER 2012

Developing strategies to mitigate the environmental effects of operations in the Arctic.

Speakers include Steve Potter of ISCO Corporate Member, S. L. Ross Environmental Research; Dave Salt, Independent Oil Spill Consultant and Member of ISCO; and Andy Crawford, Senior Vice President of ISCO Corporate Member Lamor Corp;

Review what is being done to **prevent oil spills** on ice and in ice-covered waters and find out about new methods for **containing and cleaning up oil spills**. See [IBC Energy's 2nd annual Arctic Oil Spill programme](#) for details.

USA: CLEAN GULF 2012 – NEW ORLEANS, 13-15 NOVEMBER, 2012

Challenges remain to keep large inland/deepwater oil spills from occurring and how to more effectively respond when one does. The [CLEAN GULF Conference & Exhibition](#), taking place November 13-15, 2012 in New Orleans, gives attendees the opportunity to discuss best practices and solutions with like-minded individuals all looking to achieve the same goal: keep the Gulf Coast clean.

Conference Sessions Include:

- Facility Response Plan and Spill Prevention Control and Countermeasure
- Response Technology Enhancements
- Implementing Lessons Learned from Deepwater Horizon
- Oil Spill Risk Assessment
- Surface/Subsurface Dispersant Development Update from a Regulatory Assessment
- And many more!

[Click here](#) to view the full CLEAN GULF conference program



[View Digital Conference Program](#)

[Check out the latest edition of the Little Black Book!](#)

Events (continued)

UK: WATER WASTEWATER AND ENVIRONMENTAL MONITORING, EXHIBITION AND WORKSHOPS

Telford, England, 7-8 November 2012. Don't miss out at WWEM, the UK's Largest Water, Wastewater and Environmental monitoring event. With so much going on plan your time and take advantage of free registration today! [More info](#)

Register to visit today Free of charge by [clicking here](#)

Training

NIMS INCIDENT COMMAND SYSTEM 300 (ICS-300) AND QUALIFIED INDIVIDUAL (QI)

O'Brien's is pleased to offer NIMS Incident Command System 300 (ICS-300) and Qualified Individual (QI) training this fall and winter in our [Houston office and alternate command center](#).

Upcoming training dates and courses are:

October 24-25: ICS-300

November 28-29: ICS-300

December 11: Qualified Individual (QI)

December 19-20: ICS-300

[More info](#)

Company news

DUAL FUNCTION OIL SPILL DISPERSANT AND FIRE EXTINGUISHER



Helen Li of ISCO Corporate Member, Hong Kong Spill Response Technology Co. Ltd. writes to pass on news about the company's new product - RuiSi Dispersant and Extinguisher, also used for cleaning oil contaminated surfaces.

In order to respond different kinds of spill, Hong Kong Spill Response Technology Limited researched and developed a new type of Multi-function Dispersant & Extinguisher. RuiSi Multi-function Dispersant & Extinguisher is a high-technology product. People can take measures as soon as a fire or oil spill accident occurs. The storage ability is also better. After using it, the left over in the canister still can be used next time.

The product breaks up the oil into tiny biodegradable droplets. These droplets immediately sink down in the water like a precipitate. The process continues to disperse and degrade. This way, the oil is removed instantly and has less chance of direct exposure to birds, fish and sea animals in the spill environment, and also effectively protects the environment. The product has been toxicity-tested by the relevant Chinese governmental authorities.

[More info](#) Helen is looking for interested distributors. Contact her at Helen.Li@osrtec.com

ELASTEC/AMERICAN MARINE WINS 2012 POPULAR MECHANICS BREAKTHROUGH AWARD

October 1 - Today, *POPULAR MECHANICS* awarded Elastec/American Marine a 2012 Breakthrough Award for their patented Grooved Disc oil skimmer technology. The *POPULAR MECHANICS* Breakthrough Awards, now in their eighth year, recognize the innovators and products that have dramatically advanced the fields of technology, medicine, space exploration, automotive design, environmental engineering and more. Elastec/American Marine and other winners will be honored at an invitation-only conference and gala awards ceremony in New York City on October 4, and in the November issue of *POPULAR MECHANICS*, available on newsstands October 16.

Donnie Wilson, CEO of Elastec/American Marine, will participate in a panel discussion titled, **The Innovation Economy**. The panel will cover topics such as: How does innovation work in America today? Is it an entrepreneurial phenomenon, where individuals with smart ideas create new and useful things? Is it a corporate function, where companies invest in R&D to gain competitive advantage? Does it require the large-scale resources of the federal government? The panel consists of intelligent and creative people who come from different parts of the U.S. innovation economy. The panel will explore the American innovation gene and what it will take for the country to remain competitive in the 21st century.

Elastec/American Marine manufactures pollution control equipment to clean up the world's environmental accidents and disasters. Its fire boom systems successfully corralled and burned the highest volume of oil from the Gulf of Mexico spill in 2010, preventing masses of crude from coming ashore. In 2011 the company won the Wendy Schmidt Oil Cleanup X CHALLENGE for its innovative mechanical Grooved Disc oil skimmer, the same technology winning the *POPULAR MECHANICS* Breakthrough Award.

Legal disclaimer: Whilst ISCO takes every care to ensure that information published in this Newsletter is accurate unintentional mistakes can occur. If an error is brought to our attention, a correction will be printed in the next issue of this Newsletter. Products and services featured in the ISCO Newsletter and/or the ISCO website, including the International Directory of Spill Response Supplies and Services, have not been tested, approved or endorsed by ISCO. Any claims made by suppliers of products or services are solely those of the suppliers and ISCO does not accept any liability for their accuracy.