



# ISCO NEWSLETTER

The Newsletter of the International Spill Response Community

Issue 553 26 September 2016

[info@spillcontrol.org](mailto:info@spillcontrol.org) <http://www.spillcontrol.org>



## ISCO & THE ISCO NEWSLETTER

The ISCO Newsletter is published weekly by the International Spill Control Organisation, a not-for-profit organisation supported by members in 45 countries. ISCO has Consultative Status at IMO, Observer Status at IOPC Funds and is dedicated to raising worldwide preparedness and co-operation in response to oil and chemical spills, promoting technical development and professional competency, and to providing a focus for making the knowledge and experience of spill control professionals available to IMO, UNEP, EC and other organisation.

## ISCO COMMITTEE & COUNCIL

ISCO is managed by an elected executive committee members of which are **Mr David Usher** (President, USA), **Mr John McMurtrie** (Secretary, UK), **Mr Marc Shaye** (USA), **Mr Dan Sheehan** (USA), **M. Jean Claude Sainlos** (France), **Mr Kerem Kemerli** (Turkey), **Lord Peter Simon Rickaby** (UK), **Mr Li Guobin** (China), **Captain Bill Boyle** (UK) and **Mr Dennis van der Veen** (The Netherlands).

The Register of ISCO Members is maintained by **Ms Mary Ann Dagleish** (Membership Director). She is also responsible for collecting membership dues.

The Executive Committee is assisted by the non-executive ISCO Council composed of the following national representatives – **Mr John Wardrop** (Australia), **Mr Osman Tarzumanov** (Azerbaijan), **Mr John Cantlie** (Brazil), **Dr Merv Fingas** (Canada), **Captain Davy T. S. Lau** (China, Hong Kong), **Mr Li Guobin** (China, Mainland), **Mr Darko Domovic** (Croatia), **Eng. Ashraf Sabet** (Egypt), **Mr Torbjorn Hedrenius** (Estonia), **Mr Pauli Einarsson** (Faroe Islands), **Prof. Harilaous Psaraffis** (Greece), **Captain D. C. Sekhar** (India), **Mr Dan Arbel** (Israel), **Mr Sanjay Gandhi** (Kenya), **Chief Kola Agboke** (Nigeria), **Mr Jan Allers** (Norway), **Capt. Chris Richards** (Singapore), **Mrs Fatima B. Shaik** (South Africa), **Dr Ali Saeed Al Ameri** (UAE), **Mr Kevin Miller** (UK) and **Dr Manik Sardessai** (USA).

For more info on Executive Committee and Council Members go to [www.spillcontrol.org](http://www.spillcontrol.org)

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## International news

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## EUROPE: PRODUCT THEFT FROM OIL PIPELINES: THE THEFT OF OIL FROM PRODUCT PIPELINES IS A FAST-GROWING ISSUE FOR EUROPEAN PIPELINE OPERATORS



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## International news (continued)

Since 1971, Concawe has carried out an annual survey of spillages from European cross-country oil pipelines and published the results in an annual report, along with a detailed analysis of the primary causes of the spillages. Over the years, figures have consistently shown a steady reduction in the frequency of spillages (spillages per 1000 km of pipeline). Of the total number of spillages reported, those caused by factors within the direct control of operators, including mechanical failures, corrosion and operational errors, have accounted for a decreasing percentage, while the number of spillages related to third-party activities has been on the increase.

Over the years, a small number of third party-related spillages have resulted from successful or attempted product theft. All of these occurred in Southern and Eastern Europe. However, starting in 2011, a new trend began to emerge, with product theft events being reported in several areas of Europe, including in a number of countries that had hitherto not been affected. The number of reported cases has increased year-on-year since then. *Concawe Review July 2016* [Read more](#)

## DUMPING AT SEA - MORE STATES URGED TO RATIFY THE LONDON PROTOCOL

September 20 - Governments have been urged to ratify the London Protocol treaty which regulates the dumping of wastes at sea in order to ensure the universal application of its precautionary approach towards protection of the marine environment.

The London Protocol, which currently has 47 Contracting States and has been in force since 2006, prohibits all dumping of wastes and other matters at sea, except for those on an approved list, which may be assessed and considered for dumping, such as dredged material, fish wastes and inert, inorganic material such as rocks and gravel from excavations. *IMO Briefing* [Read more](#)

## ADDRESSING DUMPING AT SEA

September 19 - Parties to the treaties which regulate the dumping of wastes at sea are meeting at IMO Headquarters this week (19-23 September). The meeting is expected to finalize a strategic plan to encourage ratification of the London Protocol; consider updated and Revised Specific Guidelines for the assessment of vessels; and finalize the 25-year scientific review of all radioactive wastes and other radioactive matter. Delegates will also celebrate 20 years of the London Convention, since it was adopted in 1996. The thirty-eighth Consultative Meeting of Contracting Parties to the London Convention and the 11th Meeting of Contracting Parties to the London Protocol were opened by IMO Secretary-General Kitack Lim. The



meeting is being chaired by Dr. Gi-Hoon Hong (Republic of Korea).

IMO News <http://www.imo.org/en/MediaCentre/WhatsNew/Pages/default.aspx>



## HELCOM RESPONSE WORKING GROUP REPORT - POLLUTION RESPONSE ON BALTIC SHORES GETS REFINED



*Experts on shore pollution response from seven Baltic coastal countries are happy for the successful completion of their key job.*

September 23 - International cooperation to respond to spillages of oil and other harmful substances in the Baltic Sea area moves ahead as the HELCOM Manual improves and the need continues for continuous information exchange and sharing best practises as well as recent developments regarding shore response.

The substantial milestone of revising the HELCOM Response Manual Vol III about pollution incidents on shore has been reached by the assigned expert group, wrapping up their meeting yesterday on a cruise ship voyage to Turku, Finland. The cooperation in combating spillages of oil and other harmful substances in the Baltic Sea area is based on the 1992 Helsinki Convention. The amendment to the Convention on explicit coverage of response on the shore, also drafted by the expert group, stepped into force in 2014. *Helcom* [Read more](#)

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### 10 YEARS OF THE GI WACAF PROJECT

September 19 – News item received from IOPC Funds

The Global Initiative for West, Central and Southern Africa (GI WACAF project) was launched in 2006 and, in close collaboration with IMO and IPIECA, has continued to focus over the past ten years on enhancing the capacity of States to prepare for and respond to marine oil spills. The IOPC Funds have had the pleasure of regularly participating in this very worthwhile project through the provision of assistance in delivering a number of regional workshops, training, seminars and exercises.

To mark the success of the Project, which covers 22 States, IPIECA has published a special anniversary report which is available on request to IPIECA.

The IOPC Funds looks forward to continuing to collaborate with IPIECA, IMO and the relevant authorities and stakeholders in the States concerned in the future.



## USA: U.S. REGULATOR ORDERS INQUIRY, REPAIRS AFTER SUNOCO'S PERMIAN LEAK

September 15 - Federal regulators on Wednesday issued a Corrective Action Order to Sunoco Logistics requiring it to examine and fix its Permian Express II pipeline in central Texas after it leaked 800 barrels of oil on Sept. 10, according to a notice.

A segment of the 200,000 barrels-per-day pipeline will remain shut until regulators authorize a written restart plan, the Pipeline and Hazardous Materials Safety Administration (PHMSA) said. The company must submit a remedial work plan within 45 days of receiving the results of metallurgical tests, regulators said. *Reuters* [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

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## USA: SINKHOLE CAUSES 980 MILLION LITRES OF RADIOACTIVE WATER TO LEAK INTO FLORIDA AQUIFER

September 17 - A sinkhole has opened up at a fertilizer plant in the US, causing about 980 million litres of radioactive water to leak into one of Florida's main underground sources of drinking water.

The sinkhole, which is about 14 metres in diameter, collapsed beneath a pile of waste material called a "gypsum stack". Sitting on top of the stack was a storage pond containing phosphogypsum, which is a radioactive by-product resulting from the production of phosphate. *The Telegraph* [Read more](#)

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## MALAYSIA: SIX FIREMEN, TWO FACTORY WORKERS SICK AFTER INHALING TOXIC FUMES AT MENGLEMBU LEAK SITE

September 17 - Six firemen and two factory workers were rushed to the hospital and private clinic here after they inhaled the toxic fumes from a leaked ferric acid tank in Kampung Bukit Merah, Menglembu here today.

The hazardous material (Hazmat) team members were being treated at Hospital Raja Permaisuri Bainun (HRPB) after they showed symptoms related to toxic gas inhalation such as breathing difficulty, red eyes and stomach ache. *New Straits Times* [Read more](#) Another related report in [Malay Mail Online](#) [Thanks for both links to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

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## HONG KONG, CHINA: CONTAINERS WITH DANGEROUS GOODS INFLAMED ON BOARD OF BOXSHIP WAN HAI 307 OFF HONG KONG

September 20 - Containers with dangerous goods inflamed on board of boxship Wan Hai 307 off Hong Kong. The fire started in the fore part of the main deck of the carrier and crew was unable to get control over the flames.

The accident was reported to local authorities and container ship anchored west off Lamma island, where were dispatched firefighting tugs with special equipment. All the crew was evacuated and firefighters boarded the vessel. It was reported that some containers within the fire or near the fire are carrying hazardous and dangerous cargo.

The major fire caught the whole fore section of the container carrier, while salvage tugs were pouring water over them. *Maritime Herald* [Read more](#)

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## SOUTH AFRICA: MAJOR CLEAN-UP AFTER OIL SPILL IN EKURHULENI

September 20 - The City of Ekurhuleni is monitoring the clean-up of the Swartspruit stream in Kempton Park following a major oil spill two weeks ago.

The stream, near the Festival Mall, became polluted after a fire at the premises of GUD Holdings (Pty) Ltd which resulted in a discharge of significant amounts of lubricating oils into the stormwater system, contaminating about a seven-kilometre stretch of the Swartspruit River. *IOL News* [Read more](#)

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## USA: IDAHO - CLEANUP ONGOING AFTER OIL SPILL IN NORTH FORK OF CLEARWATER

September 20 - Cleanup operations are continuing Tuesday in northern Idaho following an oil spill into the North Fork of the Clearwater River from a hydroelectric turbine undergoing rehabilitation work at Dworshak Dam.

A U.S. Army Corps of Engineers spokeswoman says a sheen of the light-grade turbine oil was spotted after the Monday morning spill downstream where the North Fork enters the main Clearwater River but the sheen dissipated. *SFGate.com* [Read more](#)

## CHINA: CARGO SHIP SUFFERS 'SEVERE HULL DAMAGE' IN GROUNDING NEAR XIAMEN, CHINA



Photo: Cargo ship Gan Tai Tai Zhou aground on Kinmen island, China.

September 21 - Authorities in China are racing to prevent more oil from spilling from a grounded cargo ship near Xiamen, China.

Officials are saying the vessel, Gan Tai Tai Zhou, has suffered 'severe hull damage' and leaked oil into the environment, coating nearby beaches and coastline.

The Gan Tai Tai Zhou was at a Xiamen anchorage last Thursday when it was forced aground on the southwest tip of Kinmen island during Typhoon Meranti, which hit the area with strong wind and rain after pummeling Taiwan as a

Cat 5 Super Typhoon. *gCaptain* [Read more](#) Related report in September 22 issue of [Port Technology](#)

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## NIGERIA: COMMUNITIES IN NIGERIA'S OIL HUB COMPLAIN OF MAJOR OIL SPILL

September 21 - A broken crude pipeline in Nigeria's Niger Delta oil hub has caused a massive spill polluting around ten communities, a lawyer mandated by residents said on Tuesday.

A pipeline operated by state oil firm NNPC running from Escravos to Warri has been leaking crude since it went bust on Aug 17 in Delta state, lawyer Eldridge Emekawovie said in a statement.

"Crude has spilled into all their communities with their people suffocating from the gas content contained in the crude oil," he said, asking Oil Minister Emmanuel Ibe Kachikwu to help. *Reuters* [Read more](#)

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## USA: CALIFORNIA - OIL SPILL FOUND NEAR VALLEJO FOLLOWING MYSTERIOUS ODOR

September 21 - The U.S. Coast Guard and cleanup crews from multiple state agencies worked Wednesday to contain two sprawling oil slicks in San Pablo Bay that are believed to be crude oil spilled by a tanker berthed at the Phillips 66 refinery in Rodeo, officials said.

A Coast Guard helicopter crew pinpointed a mile-long, 40-yard wide slick Wednesday morning in the northern part of the bay off of Davis Point after a worker at the Phillips 66 refinery reported it to the state Office of Emergency Services. *SF Gate* [Read more and watch video](#)

### September 22 - Spill in Vallejo Remains a Mystery

U.S. Coast Guard Sector San Francisco and local authorities are still looking for the source of two oil slicks spotted in the East Bay region on Tuesday night.

One slick of about 40 yards wide by one mile long in northern San Pablo Bay was confirmed by Coast Guard aircraft Wednesday morning; another was spotted at the Phillips 66 Rodeo refinery on the east side of the bay shortly thereafter.

The tanker Yamuna Spirit is docked at the refinery's pier and a 1,000 foot boom has been placed around the vessel as a precautionary measure. Phillips 66 has temporarily halted marine terminal operations while the investigation proceeds. *The Maritime Executive* [Read more](#)

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## AUSTRALIA: VICTORIA - TRARALGON DIESEL SPILL UNDER INVESTIGATION

September 22 - Environment Protection Authority Victoria is investigating a diesel spill that spread from the corner of Bourke and Shakespeare streets to Queens Parade in Traralgon and entered Traralgon Creek last week.

EPA officers, together with Latrobe City Council and the CFA, traced the pollution back to the vicinity of Shakespeare Street and worked with local businesses to stop and clean up the spill. EPA acting Gippsland regional manager Stephen Lansdell said an unknown amount of diesel had entered wetlands and Traralgon Creek and impacted surface waters before absorbent booms were able to be put in place. *Latrobe Valley Express* [Read more](#)

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## Incident reports from around the world (continued)

### USA: WALKER DECLARES STATE OF EMERGENCY FOLLOWING WESTERN WISCONSIN FLOODING, MUDSLIDES

September 22 - Gov. Scott Walker declared a state of emergency for 13 counties in western Wisconsin after heavy rains caused flash flooding and mudslides Thursday.

Flooding also caused a train to derail along the Mississippi River, spilling about 1,000 gallons of diesel fuel. Five train cars and two locomotives derailed around 5:40 a.m. near Lynxville, about 25 miles north of Prairie du Chien.

BNSF Railway Spokeswoman Amy McBeth said 2,500 gallons of diesel fuel have leaked from a ruptured fuel tank on one of the company's locomotives. *Wisconsin Public Radio* [Read more](#)

## News reports from around the world (countries listed in alphabetical order)

### MYANMAR: PRESIDENT URGES SIGNING OF OIL POLLUTION CONVENTION

September 21 - Parliament has been asked to allow the government to sign up to an international system of combating oil spills and maritime pollution.

On September 16, MPs were invited to debate a request from President U Htin Kyaw to sign the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC).

The request comes as foreign oil tankers and cargo ships are making increasing use of Myanmar ports. Signing the 1990 agreement would help the country deal with an oil spill in its waters by receiving international advice and assistance, deputy transport minister U Kyaw Myo told MPs. *Myanmar Times* [Read more](#)

### NIGERIA: OIL SPILL: AGIP CONNIVING WITH SOLDIERS TO RENEGE ON AGREEMENT — CLAIM MADE BY DELTA COMMUNITY

September 19 - THE people of Oleh, Isoko South Local Government Area, Delta State, have alleged that Nigerian Agip Oil Company, NAOC, connived with soldiers to renege on agreements it reached with the community to discontinue its operations in the community impacted by the recent oil spillage pending the resolution of "the grey issues."

The company's pipeline had ruptured in the community on September 7, with the resultant oil spillage causing a fire outbreak in the area. *Vanguard* [Read more](#)

### ROMANIA ACCEDES TO WRECK REMOVAL TREATY



Romania has acceded to the Nairobi International Convention on the Removal of Wrecks, the IMO treaty providing the legal basis for States to remove, or have removed, shipwrecks that may threaten the safety of lives, goods and property at sea, as well as the marine environment.

H.E. Mr. Sorin-Dan Mihalache, Ambassador of Romania to the United Kingdom, met IMO Secretary-General and deposited the instrument of ratification (20 September).

*IMO News*

<http://www.imo.org/en/MediaCentre/WhatsNew/Pages/default.aspx>

### RUSSIA: ANNUAL OIL SPILLS IN RUSSIA TWICE MORE THAN DETECTED DURING 2010 DEEPWATER HORIZON

September 20 - 1,5 million tonnes of oil are spilled in Russia annually, The Guardian reports.

The main cause is a 60% deterioration of pipeline infrastructure, says Natural Resources and Environment Minister Sergey Donskoy. Because of affordable fines and poor judgement, oil companies prefer to fix existing spills or even do nothing at all instead of investing in infrastructure improvement.

Over a half of the state budget is provided by the oil and gas production industry, and Greenpeace reports that high profitability of oil companies in Russia is based on environmental degradation, and the whole situation is contrary to the current law. *realnoevremya.com* [Read more](#)

## News reports from around the world (continued)

### TUNISIA: OILED SHORELINE SURVEY AND CLEANUP EXERCISE SCHEDULED

Under the POSOW II Project a practical exercise on Oiled Shoreline Survey and Clean-up will take place on 24 November 2016 at the Ecumed Base. The programme can be viewed at <http://www.moig.org/downloads/Agenda.pdf>

The event was announced on the MOIG website at <http://www.moig.org/> where the most recent issue of the MOIG Newsletter can also be downloaded.

## ISCO News

### MEMBER PROFILES IN THE ISCO NEWSLETTER

Your editor has received enquiries from Corporate Members asking if the ISCO Newsletter would be willing to print articles about their companies.

It has been agreed that members be asked to make a contribution of £185 to ISCO funds for publication of a one page company profile. Given that the ISCO Newsletter has a large and highly targeted readership in over 60 countries, it's a cost-effective way to promote your company. Interested members should contact the editor at [john.mcmurtrie@spillcontrol.org](mailto:john.mcmurtrie@spillcontrol.org)

This facility is only available to Corporate Members.

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### IS YOUR MEMBERSHIP OF ISCO PAID UP-TO-DATE?

All members are reminded that the publication of the ISCO Newsletter and other activities and services provided by the organization depend on the regular receipt of annual membership dues from our members.

ISCO is grateful to its members who regularly remit their membership fees on time but there are a few of you who have been falling behind with your payments. This creates a great deal of extra work for our Membership Director, Mary Ann Dalglish, in sending out reminders and chasing up overdue payments.

If you are behind with your payment, please go to <http://www.spillcontrol.org/2013-02-05-10-50-47/subscriptions> where it only takes a minute to renew your subscription online.

If you are finding it difficult to make your payment, please let us know. ISCO takes a sympathetic view and, rather than strike a member off the register would far rather allow you extra time than have to go through the very considerable amount of work involved in reinstatement of memberships that have been allowed to lapse.

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### GETTING A BETTER BALANCE OF NEWS REPORTING IN THE ISCO NEWSLETTER ....

Your editor does his best to find interesting news from all over the world but it's not easy. Members and other readers are invited to help rectify the balance of world news reporting. News stories from North America, UK, Australia, etc. are much more accessible on the internet than reports from other parts of the world and especially from non-English-speaking countries.

If you are finding that there are no news reports from your part of the world, you can help to correct this. Your editor asks you to share information that will be of interest to our worldwide community.

### ... AND PASSING ON KNOWLEDGE AND EXPERIENCE

By contributing articles and case histories for publication you can help ISCO achieve its objective of advancing response preparedness, professional development and competency. As the years go by, hard won knowledge and experience is lost as people retire or move on. The benefits of past learning and new R&D work both need to be widely shared.

Articles that pass on valuable know-how are particularly valuable – overcoming difficult challenges, innovating, relating what you did, why you did it that way, how you did it and what was achieved.

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### REMINDER - YOUR COMPANY'S BANNER CAN BE DISPLAYED FOR FREE IN ISCO'S INTERNATIONAL DIRECTORY

Quite a few of our Corporate Members are not taking advantage of the option to display their company banners in ISCO's Directory of Supplies and Services. All corporate members are listed under one or more classifications – Consultants; Equipment & Materials; Response Organizations; and Training Providers – and every entry is hyperlinked to give one click access to company's website.

Send a copy of your banner to [info@spillcontrol.org](mailto:info@spillcontrol.org) or, if you don't have a banner, our designer can create one for you at a modest cost. The option to display your banner is a free benefit only available to paid-up Corporate Members of ISCO.

## NRC - NEW APPOINTMENTS ANNOUNCED BY NRC INTERNATIONAL



NRC appoints Mark Kelly as the Vice President of International Operations. Mark joined NRC International in 2015 as Operations Manager and was promoted to the Vice President role in July 2016. Bringing 25 years' industry experience, Mark has a vast understanding of the oil and gas sector and has previously held senior operational roles in the industry in the UK, Namibia and Angola. Mark now oversees all of NRC's international operations throughout Europe, the Middle East, Africa, the Caspian Region, and the Far East. Based at the company's hub in Aberdeenshire, Scotland, Mark manages the complete range of NRC's lines of business, including oil spill response, firefighting, emergency preparedness, industrial services as well as consultancy and training.

Evgeni Shevchenko also joined NRC in April 2016 as the Vice President of International Business Development, Sales and Marketing. Evgeni is responsible for driving growth in the company's service lines and expanding new business opportunities with global leaders in the oil and gas, shipping, transportation and storage industries. Evgeni brings over 10 years' experience in various senior roles in industries including oil and gas, petrochemical, power, mining and metallurgy and project financing.



NRC is a global service provider of environmental, industrial and emergency response solutions. With the highest safety standards and industry best practice, NRC delivers a highly responsive local service in some of the world's toughest environments. <http://nrcc.com/>

## Contributed article

### SPILL RESPONSE & ALTERNATIVE RESPONSE TECHNOLOGIES BY JOHN BRINKMAN



John Brinkman is the President and CEO of Imbibitive Technologies Corporation (IMBTEC), a Delaware, USA Corporation since 1994.

IMBTEC and Imbiber Beads® have been honoured by The White House "Closing the Circle Award" and by the Technology Museum of Innovation in San Jose, California.

John Brinkman is a graduate of the University of Western Ontario, located in London, Ontario, Canada.

*Note from Editor: The editorial policy of the ISCO Newsletter does not normally allow the use of trade names in contributed articles and such articles should be free of product promotional content. However, in this case, an exception has been made. Because the product described is a single-source one-of-a-kind it was not practical to avoid use of the brand name*

The article is a follow-up to the discussion on defining sorbents and adsorbents arising from Mark Francis' article on Shoreline Clean-up in issue 538 of the ISCO Newsletter and the ensuing correspondence in issues 539 and 540.

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## Part 3 – Fast-Attack Spill Response

Setting aside the objection by Merv Fingas for the use of Imbiber Beads® on "heavy oils" and focusing instead upon the oils Imbiber Beads® work well on, the concern raised by Dr. Fingas is "how to collect Imbiber Beads® and/or the imbibed oil"?

NOTE: Rather than considering the use of Imbiber Beads® for the purpose described the immediate reaction (bias) is to dismiss their use because of a perceived problem that may not exist?

**In order to overcome an obstacle the key to is to identify the problem and then work on a solution.**

The global spill response industry has in effect addressed the issue of oil spills reaching unmanageable proportions by advocating the increased use of dispersant as a "fast-attack" response technology.



Accordingly, there are a set of obstacles for mounting a successful “mechanical” oil spill response operation and improving oil recovery statistics.

- (1) – In spite of best intentions and wonderful planning exercises it still takes too long to mobilize and get to the spill site.
- (2) – While the spill operation is mobilizing and steaming to the spill site the slick continues to spread and reach unmanageable proportions.
- (3) – By the time the response operation arrives on-site the slick has thinned to the point where skimmers are ineffective.
- (4) – Failing to recover significant volumes of spilled oil during the initial phase of the response operation the oil begins coming ashore.
- (5) – Once the cause of the release is stopped the response operation turns into a shoreline clean-up operation.
- (6) – As a result of an ineffective spill response operation the local environment is impacted; often for years.

So the question needs to be “**how can the response industry keep an oil slick from spreading to unmanageable proportions and buy time for the response operation to mobilize and arrive at the spill site**”?

- (1) Believe it or not the concept of using Imbiber Beads® on an oil spill was first proposed by Dr. Richard Hall, formerly of The Dow Chemical Company, in 1970! What Dr. Hall proposed was to deliver Imbiber Beads® onto a spill using aerial delivery, which addresses the issue of being able to respond in a timelier manner and get to the spill site within hours of notification.
- (2) Dr. Hall stated that when Imbiber Beads® come into contact with organic liquids such as crude oil they begin to soften as the oil diffuses into their solid structure, and they begin to “swell”. He also went on to explain that as the swelling is occurring Imbiber Beads® transition to a “sticky” state, which assists in the agglomeration of the “imbibed” crude oil into a semi-solid mass or “chunks” of imbibed oil.
- (3) The agglomeration of the oil addresses the issue of preventing the oil from spreading to unmanageable proportions; thereby helping to keep the slick together, which in turn facilitates more effective use of recovery equipment such as skimmers.

Application of Imbiber Beads® in the early stages of the response operation transforms the oil into semi-solid chunks of oil and prevents the oil from becoming emulsified and more difficult to handle.

- (4) Application of Imbiber Beads® eliminates the liquid phase and transforms the oil into a non-sticking, semi-solid that can be recovered off of the surface of the water in chunks using existing recovery techniques. As a semi-solid material it is no longer in a liquid state and as a result can no longer coat marine life, or wildlife or shorelines, flora or fauna.
- (5) In the event some of the imbibed oil were to come ashore it can literally be picked up “by hand”; taken to a refinery and thermally processed and recycled; thereby “**closing the environmental loop**”.
- (6) More effective oil recovery means less damage to the environment and less impact upon local economies.

For your information, the oil industry/response industry responded to Dr. Hall’s proposal by declaring that it would be “too expensive” a proposition in comparison to “tried and true” spill response techniques; techniques that to this day forty-six years after Dr. Hall made his proposal continues to average only 10 – 15% spilled oil recovery. (How can this continue to be justified?)

Taking the price objection, with consideration of the historical facts, the “value” of the current array of techniques and equipment used reflects the following:

- (1) **Exxon Valdez (March 1989)** – oil recovered = 6% of 11-million gallons (660K gallons) @ \$2.5 Billion (response operation only) = about **\$3,800.00** per gallon recovered.
- (2) **Macondo (April 2010)** – oil recovered = 3% of 200-million gallons (6M gallons) @ \$7.5 Billion (response operation only) = **\$1,250.00** per gallon recovered.  
With the fines/lawsuits assessed to BP the cost per gallon recovered comes in at **over \$4000.00** per gallon.

By comparison, the cost to treat a gallon of crude oil with Imbiber Beads® is **\$10/gallon**. Even if equipment and ancillary costs are factored in and a 50Xs multiple is used it is still a far cry from the costs associated above and the

## Contributed article (continued)

recovery statistics have a much greater chance of improving versus continuing to do the same things over and over again from the past fifty years and expecting different results.

Albert Einstein is credited as this being the definition of “insanity”.

The bottom line in this case, (all things considered), is that all 200-million gallons of oil released during Macondo could have been treated with bulk particulate Imbiber Beads®, skimmed from the water and recycled for a cost of approx. US \$2 – 3 Billion; the assumption being that strategic stockpiles and ancillary equipment were in place.

## To be continued

## Links for recent issues of other publications (in alphabetical order)

<a href="#">AMSA Aboard</a>	News from the Australian Maritime Safety Authority	June 2016
<a href="#">AMSA On Scene</a>	Australia: National Plan for Marine Environmental Emergencies	March 2016
<a href="#">ASME EED EHS Newsletter</a>	News and commentary on HSE issues from George Holliday	Most recent issue
<a href="#">Bow Wave</a>	Sam Ignarski's Ezine on Marine & Transport Matters	Current issue
<a href="#">Cedre Newsletter</a>	News from Cedre in Brittany, France	July 2016
<a href="#">Celtic and Biogenie enGlobe Newsletter</a>	Technical Information on Polluted Site Remediation	Spring 2016
<a href="#">CROIERG Enews</a>	Canberra & Regions Oil Industry Emergency Response Group	Current issue
<a href="#">EMSA Newsletter</a>	News from the European Maritime Safety Agency	September 2016 issue
<a href="#">Environmental Technology Online</a>	Environmental Monitoring, Testing & Analysis	September 2016 issue
<a href="#">IMO News Magazine</a>	News from the International Maritime Organization	No 2, 2016
<a href="#">IMO Publishing News</a>	New and forthcoming IMO publications	August 2016
<a href="#">Intertanko Weekly News</a>	International news for the oil tanker community	September 23, 2016
<a href="#">IPIECA eNews</a>	Int'l Petroleum Industry Environmental Conservation Assoc'n	February 12 issue
<a href="#">JOIFF "The Catalyst"</a>	Int'l Organisation for Industrial Hazard Management	July 2016 issue
<a href="#">MOIG Newsletter</a>	News from the Mediterranean Oil Industry Group	July 2016 issue
<a href="#">NOWPAP Quarterly</a>	News from the North West Pacific Action Plan	Quarter 1, 2016 issue
<a href="#">Ocean Orbit</a>	Newsletter from the International Tanker Owners Pollution Federation	May 2016
<a href="#">OCIMF Newsletter</a>	News from the Oil Companies International Marine Forum	August 2016 issue
<a href="#">Pollution Online Newsletter</a>	News for prevention & control professionals	September 21 2016
<a href="#">Sea Alarm Foundation Newsletter</a>	Oiled wildlife Preparedness and Response news from Sea Alarm	Autumn 2015 issue
<a href="#">Technology Innovation News Survey</a>	News from US EPA – Contaminated site decontamination	August 1-15, 2016
<a href="#">The Essential Hazmat News</a>	Alliance of Hazardous Materials Professionals	Feb 29, 2016 issue
<a href="#">Transport Canada Newsletter</a>	News and articles re transport of dangerous goods in Canada	Winter 2014 issue
<a href="#">USA EPA Tech Direct</a>	Remediation of contaminated soil and groundwater	September 1, 2016
<a href="#">USA EPA Tech News &amp; Trends</a>	Contaminated site clean-up information	Spring 2016 issue
<a href="#">WMU Newsletter</a>	News from the World Maritime University	July 2016 issue

Your editor depends on regular receipt of updated links for listed publications. If these are not received, relevant entries may be discontinued.

## Events

### UPCOMING EVENTS SUMMARY

COUNTRY	2016	TITLE OF EVENT	LOCATION
<b>For more information click on Title of Event</b>			
NAMIBIA	Sept. 26-29	<a href="#">GIWACAF Workshop on IMS and NEBA</a>	Walvis Bay
FRANCE	October 10-14	<a href="#">Sea Tech Event 2016</a>	Brest
KOREA	October 11-13	<a href="#">World Ocean Forum 2016</a>	Busan
UK	October 12-13	<a href="#">The Contamination Expo Series 2016</a>	London
FRANCE	October 13	<a href="#">Info Day - Remote detection and maritime pollution</a>	Brest
UAE	October 17-19	<a href="#">EI Middle East HSE Technical Forum</a>	Abu Dhabi
UK	October 17-20	<a href="#">October 2016 IOPC Funds meetings</a>	London
UK	October 18	<a href="#">UK Spill – Spill Science Seminar</a>	Southampton
MOROCCO	October 24-25	<a href="#">6<sup>th</sup> Envirocities Conference</a>	Rabat
UK	October 24-28	<a href="#">IMO Marine Environment Protection Committee Mtg.</a>	London
NIGERIA	October 26-26	<a href="#">GIWACAF Workshop on Oil Spill Modelling</a>	Abuja
USA	November 1-3	<a href="#">Clean Gulf 2016</a>	Tampa FL
USA	November 1-4	<a href="#">Emergency Preparedness, Hazmat Response Conf.</a>	Pittsburgh
MALTA	November 2-3	<a href="#">JOIFF Fire &amp; Explosion Hazard Mgmt. Conference</a>	St. Julians

UAE	November 7-10	<a href="#">Abu Dhabi Int'l Petroleum Exhibition &amp; Conference</a>	Abu Dhabi
CHINA	November 8-9	<a href="#">5<sup>th</sup> Oil Spill Response Workshop Conf. &amp; Exhibition</a>	Beijing
AZERBAIJAN	Nov. 21-22	<a href="#">4<sup>th</sup> Conf. &amp; Exhib'n Offshore and Onshore Oil Spills</a>	Baku
COTE D'IVOIRE	Nov. 21-24	<a href="#">GIWACF W'shop on Cont'y Planning &amp; Compensat'n</a>	Abidjan
KENYA	December 4	<a href="#">3rd Session of UN Environment Assembly (UNEA-3)</a>	Nairobi
SENEGAL	December 5-7	<a href="#">GIWACAF Workshop on Dispersants and NEBA</a>	Dakar
UK	December 7-8	<a href="#">19<sup>th</sup> Annual Salvage &amp; Wreck Removal Conference</a>	London
	<b>2017</b>		
USA	January 4-6	<a href="#">27<sup>th</sup> Annual, No-Spills Conference</a>	Acme, Michigan
KUWAIT	January 10-12	<a href="#">Kuwait 2nd Oil Spill Conference</a>	Kuwait
USA	March 28-30	<a href="#">2017 SCAA Annual Meeting &amp; Conference</a>	Washington DC
SINGAPORE	April 25-28	<a href="#">10<sup>th</sup> Intl Chemical and Oil Pollution (ICOPCE)</a>	Singapore
USA	May 15-18	<a href="#">International Oil Spill Conference</a>	Long Beach CA
	<b>2018</b>		
UK	March 13-15	<a href="#">2018 INTERSPILL Conference and Exhibition</a>	London

To request posting of an event of interest to the Spill Response Community please send details to the Editor

## Company news

### ISCO MEMBER, AQUA-GUARD WINS BUSINESS AWARD

September 24 - Aqua Guard Spill Response Inc named winner in the category of Best Established Small Business and Finalist for the Grand Prize, Rule Breaker Awards in Scottsdale Arizona November 15th.

Aqua-Guard provides a range of state-of-the-art oil spill response solutions including the [URO Skimmer System](#) and the [RBS TRITON™](#) range of oil skimmers—all built on Aqua-Guard's [patented RBS TRITON™ technology](#) to deliver some of the highest efficiency and recovery rates in the industry.

See full press release here: <http://aquaguard.com/news/aqua-guard-wins-rulebreaker-award>

### ISCO MEMBER, ECO EQUIPMENTS INC. – NEW EMAIL ADDRESS AND WEBSITE LINK

September 21 – Eco Equipments has advised that its current email address and website link are being modified by the addition of “.tw” to the existing address.

The updated email address is [sales@ecoequipments.com.tw](mailto:sales@ecoequipments.com.tw) and the website is at [www.ecoequipments.com.tw](http://www.ecoequipments.com.tw)

Eco Equipments Inc. is based in Taipei, Taiwan, China and is a provider of oil spill equipment, oil skimmers, oil booms, boom reels, rock cleaner, simple green cleaner, oil clean-up vessels, and other products.

### UK & IRELAND: SUCCESSFUL OIL SPILL RESPONSE ACCREDITATION FOR RAW GROUP'S DUBLIN RESPONSE BASE

September 18 - Raw Group's Dublin Response Base has successfully completed an oil spill re-accreditation assessment and has been awarded International Spill Accreditation Association (ISAA) recertification in the following oil spill response disciplines – Freshwater Level 3, Groundwater Level 3, and On-Land Level 3.

RAW is one of the leading specialists in inland oil spill response and remediation, operating across the world from its bases in UK, Ireland and overseas <http://www.raw-group.com/>

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