

ISCO NEWSLETTER

The Newsletter of the International Spill Response Community Issue 534 16 May 2016

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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.

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The Register of ISCO Members is maintained by **Ms Mary Ann Dalgleish (**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 **Einarsson** (Faroe Islands), Harilaous Psaraftis (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), Mr Anton Moldan (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

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International news

For more information on the events featured below, click on the banner





11th & 12th August 2016, JW Marriott, Sahar, Mumbai, India

EXPERTS: U.S. AND CUBA ON VERGE OF HISTORIC OIL SPILL ACCORD



Photo: Vice President Joe Biden will speak at the University of Tampa today.

May 10 - For more than 50 years, the broken political relationship between the United States and Cuba kept them from working together to protect the Gulf of Mexico from an oil spill.

That could be the next thing to change in this new age of normalized relations: Experts say the United States and Cuba are negotiating an agreement that would allow them to cooperate if an oil spill were to threaten either nation.

Such an agreement would usher in the unthinkable: joint military exercises between the Coast Guard and Navy with their Cuban counterparts to practice responding to a massive spill.

An accord would also be critical to protecting the Florida coastline because Cuba could allow offshore drilling in 18 months. An oil spill in Cuban waters could reach the Florida Keys in less than a week.

"A bilateral agreement would allow proper advanced planning, preparation and training to ensure that the response is credible and capable of containing the spill," said Lee Hunt, oil drilling consultant and former president of the International Association of Drilling Contractors in Houston, which trains engineers on safety.

Tampa Bay Times

Read more

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International news (continued)

ECM'S FIRST ANNUAL EXERCISE TRAINING FORUM IN ROME. JUNE 2016

ECM has announced the "First Annual Exercise Training Forum"and Dinner at the Sheraton Parco De Medici Rome Hotel in Rome, Italy on June 16th and 17th, 2016.

The two days exercise training session include the participation from:

- ITOPF
- Standard Club
- MTI Network
- O'Brien & Gere
- Donjon-Smit

ECM does hope you will be able to join us for this event, which promises to provide you with a full understanding of the following topics:

- 1. The Incident Command System (ICS) used by your Qualified Individual
- 2. USCG, State, OSROs, SMFF provider and other parties
- 3. The ICS roles and working relationships of the participants noted above
- 4. The interaction between the participants noted above and the vessel operator as the Responsible Party.

The attendees will have an opportunity to engage with each of the companies involved in the simulated response as well as network with their colleagues as they problem solve to accomplish spill response and crisis objectives.

ECM's QI/SMT clients will be able to achieve 2016 SMT TTX credit with their attendance and all attendees will receive exercise training certification. More info

POSOW II UPDATE FROM CEDRE

May 5 - This month was marked by headway on various aspects of the POSOW II project (Preparedness for Oil-polluted Shoreline cleanup and Oiled Wildlife interventions), funded by the European Union civil protection mechanism (DG ECHO) and coordinated by Cedre (see Cedre Newsletters 238 and 242).



Photo: Clockwise - 1. Shoreline survey workshop 2. Riprap clean-up workshop 3. Port clean-up workshop 4. Oiled bird approach and capture techniques

First, new batches of training materials (manuals, posters, slideshows) were published at the beginning of the month.

Thus the training materials on volunteer management, site surveys, shoreline clean-up and wildlife rescue produced during POSOW I are now available in Arabic and Turkish.

Training materials on the new themes addressed in POSOW II (waste management and the role of fishermen) are now available in English on the project website.

These materials complete the series of POSOW publications which now comprises 6 guides, 16 posters, 17 slideshows and 6 train-the-trainer manuals, all available free of charge from the project website in

English and, in the coming weeks, in Arabic and Turkish (the materials produced during POSOW I are also available in Croatian, Spanish, French, Italian, Greek and Slovenian).

These new documents were put to use straight away for two train-the-trainer courses held at Cedre from 19th to 22nd then from 26th to 29th April for 33 trainers from Algeria, Egypt, Lebanon, Morocco, Portugal, Tunisia and Turkey).

These trainers are now due to organise a training course in their respective countries using the training materials produced in order to develop a pool of trained volunteers, listed in the project database.

Learn more on www.posow.org Source: Cedre Newsletter, April 2016

Incident reports from around the world

LIBERIA: ABANDONED TANKER MYSTERIOUSLY WASHES ASHORE IN LIBERIA



Photo: Tamaya 1 washed up along the coast of Liberia near Robersport.

May 4 - An abandoned oil tanker has mysteriously washed ashore in Liberia leaving officials scratching their heads as to how it got there and what exactly happened to its crew.

According to local reports the vessel emblazoned with the name Tamaya 1 was discovered washed up on a beach in Robertsport, Liberia on Wednesday with no sign of any crew.

The last known position of the Tamaya 1 was recorded on April 22, 2016, according to AIS data from MarineTraffic.com

AIS data from MarineTraffic.com shows the Tamaya 1 is a 63-meter oil products tanker flagged in Panama.

gCaptain Read more

NIGERIA: SHELL PLATFORM UNDER ATTACK FROM SAME GROUP THAT BLEW UP CHEVRON PLATFORM

May 8 - Niger Delta militants have launched another attacked in the oil-rich region

Royal Dutch Shell has been forced to evacuate most of its staff from the Niger Delta area. News coming out from the area says a shell facility has been attacked but details are sketchy and Oil and Gas People is waiting for more information.

The news of this latest attack by the group comes after a Chevron facility suffered a similar assault last week. In that attack militants used explosive and later claimed to have "blown the platform up".

The Niger Delta Avengers, the newest militant group in the oil-rich region, has forced Royal Dutch Shell to evacuate most of its staff from a production facility in the blighted region. The evacuation was carried out by three helicopters on Saturday, according to Sahara Reporters. The exercise will continue on Sunday in the firm's facilities across the Niger Delta region. *Oil Industry News* Read more

May 9 - Niger Delta oil sites attacked by 'Avengers' - An activist group in Nigeria calling itself the 'Niger Delta Avengers' has carried out attacks on Chevron's Okan oil platform and on Nigerian National Petroleum Corporation (NNPC) crude and gas pipelines.

The Nigerian Navy told local media that the attackers used dynamite to attack the 35,000 bbl/d Okan platform in Delta State. The explosions occurred at around 23:15 local time on 4 May.

Chevron spokeswoman Isabel Ordonez told The Chemical Engineer: "All personnel have been accounted for and no injuries have been reported. The Okan facility is currently shut in and we are assessing the situation. Resources were deployed to respond to a resulting spill. The incident has been reported to the relevant security and regulatory bodies. [Chevron Nigeria] continues to monitor the situation."

It's not known how large the resulting oil spill was.

The pipeline attacks took place on 5 May at around 22:30. The oil pipelines feed the Warri and Kaduna refineries, while the gas pipelines reportedly feed power stations providing electricity in Abuja and Lagos. According to local media, the resulting fires are proving difficult to extinguish. NNPC has not commented on the attacks.

The Chemical Engineer

Read more [Thanks to ADR Training]

CANADA: TESTS SHOW IT WAS USED MOTOR OIL THAT SPILLED INTO GRAND RIVER, CLEANUP CONTINUES

May 9 - Tests have revealed used motor oil is the substance that spilled into the Grand River last month, causing black staining along the shore and a sheen on the water, Kitchener's interim associate director of operations says.

"We believed it was a petroleum substance from the beginning, but it's nice to be able to confirm that so that we know that there's no health and safety concerns related to possible PCBs [polychlorinated biphenyl] ... as well as to make sure we can do the best job of cleaning up the environment," Scott Berry said in an interview with CBC Radio's Craig Norris on The Morning Edition Monday morning.

CBC News

Read more

EL SALVADOR: MOLASSES SPILL CHOKES EL SALVADOR RIVER

May 11 - More than 900,000 gallons of molasses spilled into a river near Santa Ana, El Salvador, fouling waters and killing wildlife. NBC News Watch video news report [Thanks to ADR Training]

Incident reports from around the world

USA: SHELL SHUTS WELLS TO BRUTUS PLATFORM AFTER SPILL OFF LOUISIANA

May 12 - A 2,100-barrel oil spill in the U.S. Gulf of Mexico forced Royal Dutch Shell on Thursday to shut in all wells that flow to its Brutus platform, federal regulators said.

The U.S. Bureau of Safety and Environmental Enforcement (BSEE) said a 2 mile by 13 mile (about 3 km by 21 km) sheen was visible in the sea about 97 miles off the Louisiana coast.

The sheen is near Shell's Glider Field, a group of four subsea wells whose production flows through a subsea manifold to the Brutus platform, which sits in water with a depth of 2,900 feet (884 m). Reuters Read more

Other news reports from around the world (countries listed in alphabetical order)

AUSTRALIA: AMSA AND TANGAROA BLUE WORKING TOGETHER FOR CLEAN SEAS

May 6 - The Australian Maritime Safety Authority (AMSA) and the Tangaroa Blue Foundation (Tangaroa Blue) have joined forces to prevent marine debris from ships.

AMSA is the national maritime agency whose responsibilities include protecting the marine environment from shipping related impacts and is committed to maintaining a safe and clean marine environment. Part of AMSA's role in ensuring clean seas is the administration of the International Convention for the Prevention of Pollution from Ships (MARPOL). MARPOL prevents marine pollution by managing the discharge of waste from ships.

Tangaroa Blue is an Australian registered charity that coordinates the Australian Marine Debris Initiative (AMDI). AMDI is a network of community groups and government agencies focused on reducing the amount of marine debris washing into our oceans. Their work includes beach clean-up activities, marine debris monitoring and administration of the Australian Marine Debris Database.

AMSA Read more

NEW ZEALAND: NATIONAL EXERCISE PROTECTING NEW ZEALAND COASTLINE AND MARINE ENVIRONMENT FROM OIL AND POLLUTION

May 6 - Maritime New Zealand will lead a national maritime emergency exercise from May 9-11 that will involve a "collision" between two ships off the coast of Taranaki.

The exercise is designed to help New Zealand to better prepare for what may happen in a real event.

Whakautu II Exercise Director, Nigel Clifford, said the exercise will build on the lessons learnt from the Rena grounding in the Bay of Plenty in 2011. It is the second large-scale, national exercise that Maritime NZ has run.

"We want to be well prepared to mount an efficient and effective response in the event of another major maritime incident. Whakautu II will test our oil and non-oil response strategies and plans and help us to make further improvements," he said.

Maritime NZ will establish combined national, regional and local across-government response teams in Wellington and New Plymouth to respond to the "collision" and minimise its impact. This will include dealing with issues such as public information, salvage of the vessel, oil spill clean-up, container hazards and investigation to determine liability and accountability.

The exercise will involve about 150 people and 30 organisations, including Taranaki Regional Council as Maritime NZ's key regional response partner. Maritime New Zealand Read more

PERU: DÉJÀ VU IN PERU: THE UN SOUNDS THE ALARM AGAIN ON EXTREME POLLUTION



Picture: Indigenous leaders present 8,000 signatures from 74 countries asking the Peruvian government to remediate environmental pollution. Their banner reads: "More than 20 oil spills in 5 years in our home, the Amazon. Enough!" (Photo: Oxfam Peru)

May 12 - Indigenous communities in Peru continue to be subjected to dangerous levels of pollution due to lax enforcement of regulations on oil and mining companies.

This post was co-authored by Miguel Levano, Land Rights and Extractive Industries Officer at Oxfam Peru.

\The UN special rapporteur on hazardous substances and wastes Baskut Tuncat sounded the alarm after observing oil pollution on his recent visit to block 192 (formerly block 1 A-B) of the northern Peruvian Amazon. Block 192 is an area inhabited by indigenous peoples that has been plagued by severe pollution from more than 40 years of oil activities. Tuncat described the

Other news reports from around the world (continued)

situation as "very urgent" and called for "immediate remediation actions" in the block. After visiting Ushpayacu, an area within the block that supposedly had been remediated, he stated: "What the company [Pluspetrol] did was to drain and fill the sand. What I saw was by no means a rehabilitated area. You could see all of the oil on the surface of the water. You could smell the oil kilometers before you arrived at the site."

Does Tuncat's description of the disturbing situation in block 192 sound familiar? That may be because this is not the first time that the UN and even the Peruvian government itself have attested to the extreme levels of pollution in the block. When the former UN special rapporteur on the rights of indigenous peoples James Anaya visited the Peruvian Amazon two years ago, he described the impacts of extractive industry projects there as "devastating". On his visit to block 192 he observed "junk heap cemeteries" of discarded materials left from oil company activities many years past and noted the serious health impacts of oil production on indigenous communities.

Oxfam America

Read more

USA: WASHINGTON - OIL SPILL DRILL CONDUCTED ON PUGET SOUND

May 11 - When pulling away from land, the vessel Puget is typically looking for debris like these logs and derelict boats, but on Wednesday its crew pretended to look for something much more dangerous.

The Coast Guard taught the U.S. Army Corps of Engineers how to respond to an oil spill. They deployed a 200-foot boom to simulate a real life response. King5.com Read more and watch video

USA: MAINE - MOCK OIL SPILL DRILL PROVIDES 'REAL-WORLD EXPERIENCE' TO RESPONDERS

May 13 - Dozens of people swarmed Sears Island Thursday morning to practice what they would do if they are ever called on to respond to an oil spill on the coast of Maine.

The mock oil spill drill, organized by Don Katnik of the Maine Department of Inland Fisheries and Wildlife, is the first field exercise done by the department in several years. Altogether, about 40 people spent about four hours working through the scenario he had imagined, with a focus on saving oil-covered seabirds — represented on Sears Island by a motley assortment of stuffed animals he had rescued from the Hampden Transfer Station.

Bangor Daily News

Read more

NO NEWS FROM YOUR PART OF THE WORLD?

The ISCO Newsletter circulates to members and readers in more than 50 countries but the overall spread of international news reporting isn't great. News stories from North America, UK, Australia, etc. tend to be much more accessible on the internet than reports from other parts of the world and especially from non-English-speaking countries. Members and other readers are requested to help rectify the balance of world news reporting

If you come across a report or an article that you think worth sharing with other members of the response community, why not send it to the editor at info@spillcontrol.org

A MESSAGE FOR GOVERNMENT AGENCIES, OTHER ORGANIZATIONS AND READERS

The Editor of the ISCO Newsletter is extremely grateful to all organizations and individuals who regularly send him information for publication. However, many organizations and others who receive the newsletter do not reciprocate by way of sending information that would help the Newsletter to fulfill its aim to keep members well informed on new legislation, technological developments, R&D work, and other news that will be of value to members and other readers.

Editorial time available for news source searching is limited and more support would be very much appreciated.

People in the news

USA: NEW EPA DIRECTOR APPOINTED BY GOVERNMENT



The EPA is pleased to announce the appointment, by Government, of Dr Micheál Lehane as a Director of the Environmental Protection Agency. Laura Burke, Director General of the EPA, today welcomed the appointment, which is a full-time executive appointment with a term of office of five years.

Dr Micheál Lehane has more than 23 years experience working with environmental regulatory bodies in both the UK and Ireland. He joined the EPA in 1995 in the environmental management and planning area. He worked subsequently in the environmental assessment and reporting area and served as Programme Manager in the Office of Communications & Corporate Governance; the Office of Environmental Assessment and most recently the Office of Radiological Protection.

Micheál holds a BSc, and a PhD from University College Cork and an MBA from the University of Limerick

ISCO AT SPILLCON CONFERENCE AND EXHIBITION IN PERTH, AUSTRALIA



Narelle Ward of ISCO Corporate Member, Oil Response Company of Australia Pty. Ltd. (ORCA) welcomed visitors to the ISCO booth at the Spillcon 2016 Conference and Exhibition held in Perth, Australia on 2-5 May.

As advised in Newsletter 532, John Wardrop, Member of ISCO Council for Australia, was unable to attend, having been taken into hospital with an infection. In John's absence, Ben Cropley, Narelle Ward and Dale McClelland from ORCA helped out with the setting-up and manning the ISCO stand. Narelle has since reported that John is now out of hospital and making a good recovery.

Spillcon was well attended and the ISCO booth attracted much interest from visitors, providing a good opportunity to inform attendees on the work being done by the organization. It is hoped that ISCO's presence at Spillcon will boost our membership in Australia and the wider Asia-Pacific Region.

ISCO AT ADRIASPILLCON CONFERENCE AND EXHIBITION IN OPATIJA, CROATIA

For the very first time ISCO attended the Adriaspillcon Event held in the Adriatic Region. This was possible due to the support given by ISCO Member of Council for Croatia and OSEC Conference Director, Darko Domovic and the help generously given by ISCO Corporate Member, MEKE Marine and its CEO, ISCO Committee Member, M. Kerem Kemerli. On behalf of ISCO, Kerem gave a short welcoming speech to the Conference Delegates –

"On behalf of Spill Control Organisation, ISCO, I would like to welcome you to the 3rd Adriatic Spill Conference Adriaspillcon 2016. ISCO is a not-for-profit organisation incorporated in 1984, has members from 45 different countries and represents the Spill Response Industry at IMO. ISCO aims to raise worldwide prevention, preparedness and co-operation in response to oil and chemical spills.

Experience and knowledge can be only gained over time. ISCO encourages its members and plays a hub role in sharing these valuables with the spill response community. Please feel free to check information on our web pages.

ISCO believes in the value of organizing local and international conferences such as Adriaspillcon and supports these events.

The Adriatic is a very special Sea, the dynamics of Adriatic are completely different from those of its parent sea, the Mediterranean. So dissemination of the knowledge gained here can be an environment saving asset in other parts of the world. I would like to thank to Darko and his team for their outstanding efforts in periodically organising this conference, where all the players of the industry are present - IMO, states, academic institutions, and private companies from engineering to manufacturing, from services to consultancy. This week, we are going to have a chance to discuss all the aspects of Effective Spill Response. I wish you a pleasant conference".

ISCO news (continued)



In the picture - Mr. Hakan and Ms Deniz, from MEKE team assisted in manning the ISCO stand at Adriaspillcon on 10-12 May, 2016

Special feature

SHORELINE CLEAN-UP - PART 18

A short series of articles contributed by Mark Francis of Oil Spill Solutions



Mark Francis has been involved with the oil industry since 1975. He attended his first oil spill in 1976, the Tanker Elaine V incident. He became head of response for inland spills within the UK for British Petroleum E & P in 1980 for 10 years responding to well, storage tank and pipeline spills throughout the UK. Over the next 25 years he continued to build his international operations experience and has also specialised in spill response training, delivering IMO and other courses in more than 20 countries.

Shoreline Clean-up (Continued)

Environmental and Other Considerations

From a purely ecological perspective, a major priority should be the effects of the hydrocarbons in the sediments, especially in relation to sheltered areas with reduced wave activity.

This is due to the fact that these sediments are more productive and will probably retain more hydrocarbons. They support the life of a great variety of marine worms, molluscs and crustaceans.

These animals could die if the oil penetrates into the sediments, as was the case with the spill of the Sea Empress 1996, when many amphipods, crustaceans and molluscs died due to the highly toxic oil sweeping across mud flats.

The recovery from contamination by hydrocarbons depends on the sensitivity of the species affected. After the spill of the *Sea Empress*, for example, the populations of molluscs that lived in the mud recovered over a period of just a few months, however the populations of amphipods only returned to normal after a year.

After a spill of hydrocarbons it is possible that opportunists, such as some of the species of worms, show a spectacular growth over a short period of time.

Special feature (continued)

Adverse effects of contamination by hydrocarbons are also related to the persistence of hydrocarbons in the sediments. After the spill of the *Florida*, for example (Buzzards' Bay, USA, in 1969), the populations of a type of crab took more than seven years to recover and it was possible to correlate this with the persistence of hydrocarbons below the surface of the mud.

On the other hand, the recovery after the spill of the *Arco Anchorage* (Port of Los Angeles, USA, in 1985) after a year was already well advanced thanks to an effective response to the spill which helped to eliminate hydrocarbon in the sediments.

A reduction over the long term of fauna in the sediment can have an adverse effect on the birds and fish that use the marine areas for feeding and, in some countries, the persistence of oil on sandy beaches can affect the reproduction of turtles. Some cases have been registered of the deaths of seal pups and, in some cases, adult seals do not succeed in reproducing in zones contaminated by oil.

Oily material, which for one reason or another cannot be removed and remains in the sediment, may block the light of a considerable portion of the surface of the marshes and, consequently reduce its productivity. Besides this, it presents a source of contamination and a risk for the animals of this ecosystem.

The types of communities affected should also be taken into consideration, since many organisms possess the capacity to clean themselves, often living under natural conditions of stress they can succeed well in surviving an oil spill.

On the other hand, there are many species of organisms that may be seriously affected by an oil spill, with irreversible damage being caused to the community.

The local biological populations may also be presented as an important agent in the behavior of the oil in the sediment. Muddy beaches with fine-grained sand often host organisms adapted to living in galleries and tubes, which are physical means for the passage of oil and its consequent penetration to the lower layers of the sediment.

Looking at organization of clean-up operations and having considered all the relevant information - shoreline type, size, degree of exposure, angle, socio-economic issues, environmental issues, access, etc., we can go on to look at management issues.

Typically we need supervision at a ratio of 1 supervisor to 10 or maybe 15 operators. This depends on the performance capabilities of clean-up teams.

From my experience - Along with three others I had the charge of 250 women on a Mozambique beach during their civil war. The impacted beach was fairly flat with fine-packed sand; it was about 3 km. in length with a small mangrove area at one end and had been impacted with about 5000 tonnes of heavy fuel oil.

It was impossible to know at any one time how many of the women were working. Luckily they were very honest people. Many had small children or were in various stages of pregnancy. The young girls set up a creche. When a baby cried a girl would fetch mum, she would feed the baby and then go back to work. They were paid \$1 and a bowl of rice per day. It was over too quickly, this job had a lasting impression on me.

On another occasion I was in charge of a shoreline clean-up in Southern Ireland. There was a cliff at the back of the beach which made access difficult. The shore was very rocky not allowing access from the sea.

Use of helicopter for access was a practical option. Initially the most expensive helicopter in the country was hired but we got a cheaper one as fast as we could from Scotland.

Oil and oily waste was removed in 1 tonne bags as underslung helicopter loads. I had people filling these bags but as time went on people began to fill the bags with clean rocks and sea weed because the money was good and they did not want it to finish.

We even had a couple of guys dressed in oily Tyvec suits who robbed a house near the cliff top and left their oily foot prints as a good clue for the police to look at the shoreline operation. They even stole a shotgun which at the time was punishable by a very heavy sentence. Hiring people is easy but controlling them can sometimes be very difficult. It all depends on where you are as to how the job needs to be supervised.

To be continued in next week's newsletter

Note from Editor: This article was originally created for training course purposes. Having contributed the article for publication in the ISCO Newsletter, Mark Francis wishes to acknowledge sources that provided information that he used in compiling this and future episodes in this series. In the sections dealing with shoreline types, the do's and don'ts were taken from Concawe report no. 9/81 Field Guide to Coastal Oil Spill Control and Clean-up Techniques and the tables are based on some found in the Field Guide for Oil Spill Response in Arctic Waters prepared for the Emergency Prevention, Preparedness and Response Group.

Science and technology

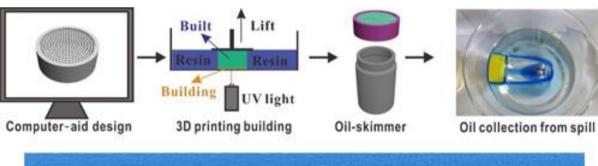
CHINA: REVOLUTIONARY 3D PRINTED OIL-SKIMMER CAN SAFELY FIGHT OIL SPILLS, RESEARCHERS SAY

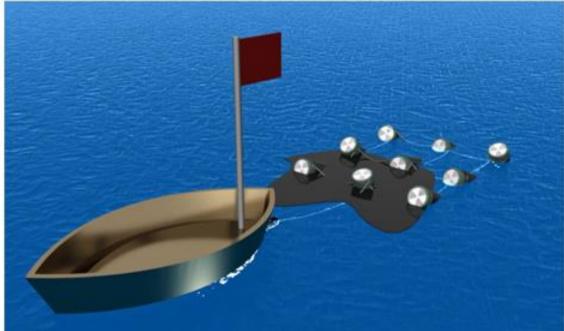
May 2 - Few man-made environmental disasters are as bad as oil spills, such as the 2010 BP oil spill. But smaller incidents, including the systematic leaking of oil-containing waste water into nature, have a significant impact on the environment as well. That's exactly why Chinese scientists from the Lanzhou Institute of Chemical Physics (LICP) have been working to greatly increase the efficiency of oil cleaning tools, and they have just reported a significant breakthrough. As they reveal in a new paper, they have developed a 3D printed oil-skimmer that safely and efficiently collects oil that is floating on the surface of water.

The BP oil spill emphasized how desperately such a solution is needed. As you might remember, 4.9 million barrels of oil were discharged into the Gulf of Mexico over a period of 87 days. But the problem wasn't just that the oil has a disastrous impact on all all flora and fauna that inhabit the seas, but that oil is also particularly difficult to clean up. As a result, cleaning efforts took more than two years, after which most of the damage was irreversible.

But a low-cost solution is not far away. The researchers from the LICP, which is part of the Chinese Academy of Sciences (CAS), argue that their relatively small 3D printed oil-skimmer brings unprecedented oil collection options to the table, and safely stores collected oil without endangering other areas. This exciting and accessible solution has been showcased in an article entitled 3D Printing as Feasible Platform for On-Site Building Oil-Skimmer for Oil Collection from Spills in the journal Advanced Materials Interfaces. The research was headed by Professor Zhou Feng and was financially backed by CAS programs and the National Natural Science Foundation of China.

What's more, this oil-skimmer is deceptively simple. It essentially consists of just two parts: a 3D printed mesh that has been treated with low surface energy materials, and a bottom container. The 3D printed mesh has excellent water-repelling properties, enabling it to filter the oil out of the water. The oil is then collected in the bottom container, which is kept afloat by the 3D printed mesh. The bottom container is also 3D printed, and can be made on-site. This means that even oil spills in a remote corner of the Pacific Ocean, for instance, can be efficiently and quickly dealt with.





Most importantly, that mesh has been designed in such a way that the oil cannot escape out of the skimmer either. Overloading or harsh weather conditions, such as storms, won't create a second environmental disaster during cleaning activities. This skimmer thus has the potential to dramatically decrease the environmental impact of oil spills. To be sure, oil spill prevention should have the highest priority, but you need to be prepared for all possibilities.

This article originally appeared in 3D printer and 3D printing news. <u>www.3ders.org</u>

rs.org Related article

Science and technology (continued)

USA: NEW WAY TO TREAT GROUNDWATER CONTAMINATED BY NUCLEAR WASTE

May 4 - Scientists at Washington University in St. Louis have found a new way of treating water contaminated by nuclear waste.

These strides could be useful not only in the cleanup of former nuclear sites, but also in the treatment of mine water, since it can be contaminated by uranium, a consequence of gold mining, according to The Times of South Africa.

The researchers "discovered a new efficient way of using calcium phosphate to react with and immobilise uranium. In their experiments, researchers first determined the exact level of calcium in the contaminated water. They then added the phosphate, which formed calcium phosphate, chemically binding and neutralising the uranium," the report said. *Pollution Online* Read more

USA: GENETIC POTENTIAL OF OIL-EATING BACTERIA FROM THE BP OIL SPILL DECODED



This image shows the surface oil slick from the Deepwater Horizon oil spill. Research, including this latest study, has identified which bacteria were most important in breaking down the oil. Credit: Andreas Teske, University of North Carolina Chapel Hill.

May 9 - Microbiologists have cracked the genetic code of how bacteria broke down oil to help clean up the Deepwater Horizon oil spill, revealing that some bacteria have far greater potential for consuming oil than was previously known. The findings have applications for responding to future oil spills.

Microbiologists at The University of Texas at Austin and their colleagues have cracked the genetic code of how bacteria broke down oil to help clean up the Deepwater Horizon oil spill, revealing that some bacteria have far greater potential for consuming oil than was previously known. The findings, published in the journal

Nature Microbiology, have applications for responding to future oil spills and other ecological disasters, while shedding light on the ways in which tiny microbes played an outsized role in limiting damage from the 2010 spill caused by the explosion of a BP oil rig.

Since the spill in the Gulf of Mexico, scientists have studied how communities of bacteria that grew exponentially after the disaster helped to eat away at the vast range of chemicals there, but little was known about the genetic underpinnings of the process. Brett Baker, an assistant professor in the Department of Marine Science; Nina Dombrowski, a postdoctoral researcher in his lab at The University of Texas Marine Science Institute; and colleagues sequenced the DNA of oil-munching microbes to reveal the genetic potential in different bacterial species, including ones newly identified as important to the cleanup task.

"Oil is extremely complicated but it has two major compounds: alkanes, which are relatively easy for bacteria to break down, and aromatic hydrocarbons, which are much trickier to get rid of," Dombrowski said. "We found a number of bacteria surprisingly capable of dealing with the more dangerous compounds. This has implications for future oil spills and how we take advantage of the natural environmental response."

Science Daily

Read the complete article

Training

USA: OHMSETT OIL SPILL RESPONSE STRATEGIES & TACTICS TRAINING

May 4 - Course Topics: Fates & Effects of Spilled Oil + Oil Skimmer & Containment Boom Selection & Use + Booming & Recovery Strategies + Factors Affecting Oil Spill Movement + Site Safety Planning + Incident Command System (ICS) + National Incident Management System (NIMS) + Responder Safety + And More!

Registration deadline is July 1, 2016. August 29-31, 2016 Tuesday - Thursday 8:00 am - 5:00 pm Ohmsett | Leonardo, NJ

For more information contact Sue Cunneff 732.866.7286 scunneff@ohmsettnj.com www.ohmsett.com

Training (continued)

NEW ZEALAND: MASSEY CREATES COMPREHENSIVE OIL SPILL WILDLIFE RESPONSE **PROGRAMME**



Asia-Pacific's leading international oil spill conference.

Photo: Maritime New Zealand A little blue penguin gets the star wash treatment at the Oiled Wildlife Response Centre after the Rena oil spill in 2011

May 3 - Massey University has teamed up with an American university to create what it considers the world's most comprehensive oil spill training programme.

Massev and University of California Davis launched training programme on Tuesday in preparing for, and responding to, wildlife affected by oil spills.

Oiled Wildlife Response Training (OWRT) has been jointly developed by the universities and launched in Perth at Spillcon 2016 -

April 2016

March 2016

Current issue April 2016

Spring 2016

No 1, 2016

March 2016

No 20, 2016

Fall 2015 issue

March 2016 issue

Current issue May 2016 issue

May 2016 issue

Most recent issue

Collectively Massey University and UC Davis have led more than 70 international responses.

The programme will be delivered through a combination of online and face-to-face teaching.

It will cover planning field search and collection, cleaning and rehabilitation, development of oiled wildlife facilities, preparedness and emergency crisis management.

Massey University Wildbase oil response senior lecturer Dr Louise Chilvers said almost 40 per cent of countries in the world had no oiled response plans in place.

"At the same time, global oil consumption has reached more than five billion tonnes a year."

Collection and transporting now had a decreased risk of accidental oil spills, but the consequences and the amount of oil spilled during an event had increased. Manawatu Standard Read more

News from the Australian Maritime Safety Authority

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

AMSA Aboard AMSA On Scene ASME EED EHS Newsletter **Bow Wave** Cedre Newsletter Celtic and Biogenie enGlobe Newsletter **CROIERG Enews EMSA Newsletter** Environmental Technology Online **IMO News Magazine IMO Publishing News** Intertanko Weekly News **IPIECA eNews** JOIFF "The Catalyst

Pollution Online Newsletter Sea Alarm Foundation Newsletter Technology Innovation News Survey The Essential Hazmat News Transport Canada Newsletter **USA EPA Tech Direct USA EPA Tech News & Trends**

MOIG Newsletter

WMU Newsletter

OCIMF Newsletter

Sam Ignarski's Ezine on Marine & Transport Matters News from Cedre in Brittany, France Technical Information on Polluted Site Remediation Canberra & Regions Oil Industry Emergency Response Group News from the European Maritime Safety Agency Environmental Monitoring, Testing & Analysis News from the International Maritime Organization New and forthcoming IMO publications International news for the oil tanker community Int'l Petroleum Industry Environmental Conservation Assoc'n Int'l Organisation for Industrial Hazard Management News from the Mediterranean Oil Industry Group News from the Oil Companies International Marine Forum News for prevention & control professionals Oiled wildlife Preparedness and Response news from Sea Alarm News from US EPA - Contaminated site decontamination Alliance of Hazardous Materials Professionals News and articles re transport of dangerous goods in Canada

Australia: National Plan for Marine Environmental Emergencies

News and commentary on HSE issues from George Holliday

February 12 issue January 2016 issue January 2016 issue May 2016 issue May 11, 2016 issue Autumn 2015 issue March 16-31, 2016 Feb 29, 2016 issue Winter 2014 issue May 1, 2016 Remediation of contaminated soil and groundwater

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

Contaminated site clean-up information

News from the World Maritime University

UPCOMING EVENTS SUMMARY

COUNTRY	2016	TITLE OF EVENT	LOCATION	
For more information click on Title of Event				
UAE	May 17-18	Offshore Arabia Conference & Exhibition	Dubai	
UK	May 17-18	Edie Live - Sustainability and Resource Efficiency	Birmingham	
RUSSIA	May 18-20	13th POMRAC Focal Points Meeting	Vladivostok	
CURACAO	May 19-20	RAC/REMPEITC-Caribe Steering Committee Mtg.	Curacao	
NIGERIA	May 23-25	National W'shop on Spill Compensation & Modelling	Abuja	
NETHERLANDS	May 24-26	Bon Agreement WG on Counter Pollution Activities	Scheveningen	
SINGAPORE	May 24-27	Intertanko Annual Tanker Event 2016	Singapore	
TUNISIA	May 26	Zarzouna Tier 2 Oil Spill Response Exercise	Bizerte City	
SIERRA LEONE	June 6-9	Workshop and Exercise on Contingency Planning	Freetown	
CANADA	June 4-6	Workshop on Long Term Persistence of Stranded Oil	Nova Scotia	
SOUTH AFRICA	June 6-9	Workshop to review the Oil Spill Contingency Plan	Cape Town	
GREECE	June 6-10	Posidonia 2016	Athens	
CANADA	June 7-9	AMOP Technical Seminar	Halifax	
ITALY	June 16-17	ECM's First Annual Exercise Training Forum	Rome	
LITHUANIA	June 20-22	Exercise Balex Delta 2016	Klaipeda	
USA	June 21-23	Clean Pacific Conference & Exhibition	Seattle. WA	
UK	June 22	3rd Premiam Conference on Post-Spill Monitoring	London	
Panama	June 27	EcoCanal 2016, NRT-ACP Drill	Panama	
INDIA	August 11-12	Oil Spill India	Mumbai	
INDIA	Sept. 12-14	International Rivers Symposium	New Delhi	
NORWAY	Sept 12-16	International NOSCA Oil Spill Technology Seminar	Bodo	
INDIA	Sept. 22-24	India Clean Seas Conference 2016	Goa	
FRANCE	October 10-14	Sea Tech Event 2016	Brest	
UA E	October TBA	El Middle East HSE Technical Forum	Abu Dhabi	
UK	October 18	UK Spill – Spill Science Seminar	Southampton	
MALTA	November 2-3	JOIFF Fire & Explosion Hazard Mgmt. Conference	St. Julians	
To request pos	To request posting of an event of interest to the Spill Response Community please send details to the Editor			

Company news

NORWAY: EGERSUND TRÅL WITH NEW DELIVERY TO NOFO



Egersund Trål AS has signed a contract with NOFO (Norwegian Oil Spill Association For Operating Companies) for another delivery of the oil spill recovery system MOS Sweeper.

MOS Sweeper is a complete single vessel oil containment and recovery system, which can chase, collect and pump oil during operation from the ocean back to the towing vessel.

The MOS Sweeper system has repeatedly proven its strong ability to collect oil spills and on the oil-on-water exercise last year the system had an impressive recovery rate. "This high-speed sweeper system with integrated pump will make NOFO better equipped to deal with an oil spill in the event of an incident says Managing Director Leif J. Kvamme at NOFO" For more information, please contact: Egersund Trål AS Bjørn Havsø: tlf 934 11342 e-mail: bh@egersundgroup.no www.egersundgroup.no

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