



# ISCO NEWSLETTER

The Newsletter of the International Spill Response Community  
Issue 305, 17 October 2011

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## News

### NEW ZEALAND: UPDATES ON THE RENA SAGA



The world watches as the drama unfolds. There are hundreds of media reports and some excellent video footage. Here we continue a day to day overview of events.

#### October 11 – Oil spill now New Zealand's worst maritime pollution disaster.

Maritime New Zealand said the vessel had spewed an additional 130 to 350 tonnes of oil into the Bay of Plenty, far more than the initial spill of 20 tonnes, which has already fouled beaches in the environmentally sensitive area. [Read more](#)

#### October 12 - 1368 containers on board

Maritime New Zealand (MNZ) said a total of 88 containers had toppled from the ship deck, up from its initial estimate of 70. [Read more](#)

Maritime New Zealand said 1368 containers are on board. Eleven containers containing hazardous substances are on the vessel. [Read more](#)

#### October 13 – Officers arrested

The ship's master and the second officer in charge of the navigational watch have been charged, under the Maritime Act, for operating a vessel in a manner causing unnecessary danger or risk, the maritime agency said. [Read more](#)

#### October 14 – “Substantial structural failure”

A salvage crew has been winched aboard during a calm weather in what may be the last desperate effort to limit the country's worst maritime environmental

## News (continued)

disaster. They will assess whether the remaining oil can be pumped into ships alongside before the Rena comes apart.

A vertical crack in the ship that Maritime New Zealand described as a "substantial structural failure" runs around the entire vessel. Steve Jones, spokesman for Maritime New Zealand, said the ship was now only held together by its internal components. [Read more](#)

Authorities said three tugs were on standby and if the Rena split they would try to hold the stern section, where most of the oil is stored, on the Astrolabe Reef, 22 kilometres (15 miles) offshore. If that proved impossible, the tugs would try to tow the stern to shallow water, making it easier to eventually offload the oil. [Read more](#)

Salvage teams worked throughout the night to build platforms intended to attach to the Rena, which is currently leaning by over 22 degrees, to help with fuel recovery operations. [Read more](#)

On Friday, the calmest weather in days allowed the crews to get back aboard the ship, but the complexity of their task dashed earlier hopes they might resume pumping that day, according to Maritime New Zealand. [Read more](#)

A judge fined owners of a cargo ship \$1.2 million on Friday over a major oil spill that stained 35 miles (56 kilometers) of Australia's east coast including popular surf beaches. [Read more](#)

### October 15 – Oil “Consistency of Marmite”, Wildlife toll

Heavy fuel recovery machinery will be lifted onto the platforms attached to the Rena today and an Archimedes screw pump will be inserted into the tank to extract the oil. The cold oil has hardened to the consistency of Marmite, which is why the special type of screw pump is needed to get the oil out.... The salvage teams have now attached four platforms to act as a flat surface to undertake fuel recovery from. This morning they will begin lifting heavy fuel recovery machinery on to the platforms. [Read more](#)

In a wildlife rescue centre on New Zealand's Bay of Plenty, volunteers grimly bag the oil-soaked bodies of dead birds, victims of the country's biggest sea pollution disaster. The number of dead birds that have been recovered in the North Island bay, which teems with wildlife and is a nesting area for rare species such as the endangered New Zealand dotterel, stands at 1,000.... "What we're seeing as far as the dead population that has been brought in is only a very small portion of what has died out there" [Read more](#)

### October 16 – Oil pumping resumed, beach cleaning continues

Salvage crews have started pumping oil from stricken container ship Rena and will stay onboard overnight to get as much oil off as possible before poor weather returns, possibly by late tomorrow.... A salvor who descended deep into the twisting bowels of the wreck of the Rena has described it as one of the most frightening tasks of his career... Anderson said salvaging the Rena was particularly challenging. "I was talking with one of the salvage officers, and this guy has been doing this for a long time. He led the initial inspection party and he said this was one of the worst wrecks he'd ever got on. This thing is grinding and groaning away as it is twisting and mashing parts of it up.

On the beaches, more than 500 volunteers had been expected to assist the clean up effort at Papamoa and Maketu today, combined with around 140 NZ Army personnel. [Read more](#)

### Videos and photos – Don Johnston of ISCO Industry Partner, DG & Hazmat Group, has kindly provided the following links

#### Watch the Video

- [Rena stranding](#)
- [Aerial footage of Rena cracking \(1:30\)](#)
- [Massive cracks on Rena renew sinking fears \(4:32\)](#)
- [Oil angers residents \(3:08\)](#)
- [Rena crisis worries fishermen \(3:14\)](#)
- [Residents told to avoid containers washing ashore \(2:00\)](#)
- [Conditions good for reboarding Rena](#)

**Photo's** [Rena stranded off Tauranga\(41 photos\)](#)

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## UK: BP SUBMITS WORST CASE SCENARIO CONTINGENCY PLAN FOR NEW WELL

BP has established contingency plans to fight a massive oil spill twice the size of last year's Deepwater Horizon disaster in the Gulf of Mexico, BBC News reports.

The oil giant submitted its "worst-case scenario" Oil Pollution Emergency Plan to the British government, from which it is seeking approval to begin drilling a new exploratory well 80 miles northwest of the Shetland islands early next year.

## News (continued)

BP has been exploring those deep waters for some forty years, and has been producing oil from the area for more than 15 years.

The new well, known as the North Uist, will be drilled at depth of nearly 4,000 feet.

The company already has three West of Shetland wells currently producing oil, at depths from 460 to 1,640ft. But North Uist, which BP described as “stepping out, in terms of depth”, will be nearly three times as deep, in conditions similar to those of the Deep Horizon well, which was located some 5,000 feet down.

The company's contingency plan described a potential situation involving a leak of 75,000 barrels a day for 140 days – a total of 10.5 million barrels of oil. That is more than twice the amount of oil spilled during last year's Deepwater Horizon spill in the Gulf of Mexico, which had a maximum leak rate of 62,000 barrels a day in an incident lasting 88 days. BP said it had incorporated the lessons learned from the Deepwater Horizon into its overall plan for the new well. [Read more](#) [Related article](#)

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## U.S. SANCTIONS BP, CONTRACTORS FOR GULF OIL SPILL

October 13 - The U.S. offshore drilling regulator on Wednesday formally issued sanctions against BP and the major contractors for the 2010 explosion on the Deepwater Horizon rig that killed 11 workers and unleashed more than 4 million barrels of oil into the Gulf of Mexico.

The newly formed Bureau of Safety and Environmental Enforcement filed 15 "incidents of non-compliance" to the companies. It did not release details of how much the companies may face in fines.

By law, the companies face fines of up to \$35,000 a day, per incident for the violations.

The infractions uncovered during the federal probe of the accident were outlined in the Interior Department's final report on the disaster, released last month.

BP, owner of the ruptured Macondo well, received the lion's share of the sanctions, with seven notices for violations ranging from failure to protect health and property to failing to keep well under control at all times.

In a first for the department, BP's contractors Transocean, which owned the Deepwater Horizon rig, and Halliburton, which carried out cementing on the well, also face sanctions.

The contractors each received four notices of violations. [Read more](#) [Related report](#)

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## USA: MISSION LAUNCHED TO SEE IF OIL REMAINS ON OLD SHIP

Two weeks after the attack on Pearl Harbor, a Japanese submarine launched a torpedo at an American oil tanker just off the California coast, sinking the ship and possibly 3 million gallons of crude to the bottom of the ocean.

All 38 people on board were rescued and the story was largely forgotten but the legacy of this little known chapter during World War II could have significant environmental implications.

For seven decades the SS Montebello has sat mostly intact 900 feet below the surface with what experts believe could be a hull full of oil. A mission to see how much of the oil remains in the hold of the 440-foot ship launches this week to help officials determine how to prevent the crude from leaking and marring the celebrated central California coastline. [Read more](#) [Related report](#)

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## CHINA'S CNOOC HIT BY FRESH OIL SPILL IN NORTHERN WATERS

October 14 - China's biggest offshore oil producer, CNOOC, has been hit by another oil spill in north Chinese waters, state media reported on Saturday, following a June spill at a field jointly run with ConocoPhillips that sparked an official uproar.

The latest spill broke out near the Jingzhou 9-3 field operated by a subsidiary of CNOOC in the Liaodong Bay off northeast [China](#), Xinhua news agency reported. Maritime administrators announced an emergency and have sent a ship to the area after a belt of oil floated to the surface near a platform on the field on Friday. A construction ship struck an underground pipeline, the report said. [Read more](#)

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## USA: EPA'S OIL SPILL PLAN DEADLINE A MONTH AWAY

EPA's Oil Spill Prevention, Control and Countermeasure (SPCC) program **requires farms and other regulated facilities** to prepare a SPCC Plan to prevent oil spills into U.S. waters. Farms in operation on or before Aug. 16, 2002, must maintain or amend their existing plan by Nov. 10, 2011. Any farm that started operation after Aug. 16, 2002, but before Nov. 10, 2011, must prepare and use a plan on or before Nov. 10, 2011. [Read more](#)

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## FRANCE: INAUGURATION OF CEDRE'S FLUME TANK

Designed in the late 1990s, *Cedre's* flume tank or "Polludrome" has been used to study the behaviour of around forty oils and chemicals, in particular heavy fuel oils with the occurrence of the *Erika* and *Prestige* spills. Over the years, the tank had become corroded by salt, and was in need of replacement. On funding from the French Government and the Region of Brittany, a new version of the Polludrome was designed by engineers and technicians from *Cedre* and constructed by a local firm based in Brest.

One of a kind due to its size, this experimental tool made of stainless steel is installed in an air conditioned hall and is used to simulate the effect of wind, waves, currents and sunshine, and to study the influence of these factors on the behaviour and properties of products spilled at sea and in inland waters. The new flume tank was inaugurated at *Cedre*, on 22 September by François Cuillandre, President of *Cedre*, Isabelle Thomas, Vice-President of the Region of Brittany and Loïc Laisné, Deputy Maritime Prefect, in charge of State action at sea. [Cedre Newsletter](#)

## UGANDA: ESTABLISHMENT OF OIL SPILL CONTINGENCY PLAN

From 28th August to 4th September, an engineer from *Cedre* was in Kampala (Uganda), as well as North East of Lake Albert, on Block 1, for which a permit has been granted to Tullow Oil for oil exploration and appraisal operations. Following the acquisition of a 33% contribution for this block (as well as blocks 2 and 3A), TOTAL Exploration & Production Uganda (TEPU) should become the operator of this block in late September 2011.

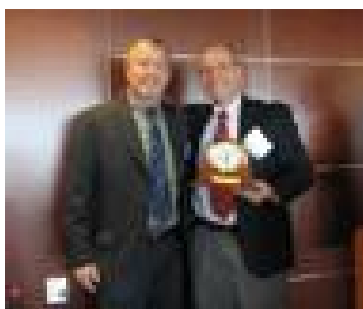
The main purpose of this assignment was to collect both the organisational and operational information required to establish the Ugandan branch's Oil Spill Contingency Plan (OSCP). During the onsite visit, the following aspects were reviewed in detail: the sites concerned, the risks related to exploration and test operations, the relevant scenarios for establishing the plan, the main response strategies to be put forward, the required equipment available or to be acquired to implement these technical choices. An initial draft of the plan has been submitted to TEPU. The final version should be available in October. A second trip will take place in November to present the final document as well as to train those involved in implementing the plan. [Cedre Newsletter](#)

## EGYPT: REGIONAL TRAINING WORKSHOP

From 13 to 15 September, a regional training workshop took place in Hurghada (Egypt) on the risks generated by marine spills of hazardous substances. This workshop was organised by the Regional Intergovernmental Organization for the Conservation of the Environment of the Red Sea and the Gulf of Aden (PERSGA), created at the Jeddah conference (Saudi Arabia) in 1982 under the authority of UNEP. Representatives of the six nations bordering the Red Sea and the Gulf of Aden attended a course run by *Cedre*. [Cedre Newsletter](#)

## People in the news

### AMERICAN SALVAGE ASSOCIATION ANNOUNCES NEW LEADERS FOR 2011-2013



The American Salvage Association (ASA) recently announced that Tim Beaver, Chief Executive Officer of Global Diving & Salvage, Inc., Seattle, WA, has been elected President of the association at its National Maritime Salvage Conference & Expo in Arlington, VA. Beaver succeeds Mauricio Garrido, who served as President from 2009-2011. Paul Hankins, Donjon-SMIT, LLC, has been elected Vice President. Todd Schauer, Resolve Marine Group, has been named Secretary/Treasurer.

"This new leadership team will serve to energize the ASA's approach to the diverse fronts tackled by the ASA," said Beaver.

In addition, David DeVilbiss (Global Diving & Salvage, Inc.); Dan Schwall (Titan Salvage); and Bob Umbenstock (Resolve Marine Group) were elected to ASA's Executive Committee.

Paul Smith (The Glostén Associates, Inc.) and Bob Urban (PCCI, Inc.) were elected co-chairs of the ASA Associate Membership Committee, and serve on the Executive Committee in this capacity. [Read more](#) [Related report](#)

### IPIECA WELCOMES A NEW EXECUTIVE SECRETARY

Brian Sullivan joined IPIECA as the Executive Secretary on 3 October 2011 from the biofuels industry and following a 23 year career in BP.

He graduated in Metallurgy and Materials Science from Imperial College, London, UK and was recruited into BP's Refining and Marketing international graduate programme in 1986.

Over the course of 23 years, his career included assignments in London, Copenhagen, Budapest, Athens and Johannesburg, and business experience in over 60 countries. [Read more](#)



## UNIQUE "TORPEDO" PROTECTS MALMÖ PORT IN THE EVENT OF AN OIL SPILL



**Copenhagen Malmö Port (CMP) is the first major oil port in the world to install a fully automatic system to prevent an oil spill. A closure of the oil terminal, which previously was time consuming and handled manually, can now be done in a few minutes.**

Instead of bringing an oil boom manually from a boat, CMP can now activate an Autonomous Surface Vehicle (ASV), also known as "the torpedo". The ASV is an electrically powered unit that closes the basin in 5-6 minutes and prevents the oil from spreading.

- We have never suffered from a major oil spill in Malmö Port, but it is a situation we want to avoid at all costs. The torpedo is a great improvement to our already well-developed environmental safety. It is exciting that Malmö will be the first port in the world with this system. We hope that more ports will follow our example, says Johan Röstin, CEO of CMP.

The technology was developed through a collaboration between CMP and the Swedish company SP Marine AB in Gothenburg. The time saved by closing the oil terminal with the ASV limits the oil spill in the port and further out in Öresund. The time spent on clean-up, which earlier would have forced the port to close for several weeks, is also significantly reduced.

- The new technology saves the environment and the cost of cleaning operations. Ports have until now been forced to contact emergency services and then put out the oil boom manually from a boat. Now the time it takes to protect the port is reduced four times, says Johan Röstin.

For the company Scandinavian Tank Storage which stores and handles petroleum products in Malmö Port, the new torpedo has a great importance.

- The technology is a great security for us and makes it possible to quickly gain control of an accident that otherwise could have devastating consequences for the environment and the activities in

the port, says Claes Jacobsson, CEO of Scandinavian Tank Storage.

More on ASV: Using GPS technology, the ASV can either be programmed to follow a fixed course or be controlled by a wireless transmitter. The ASV hangs onto one of the three docking stations that are located on the other side of the oil terminal, and seals the oil spill effectively. The ASV has a range of several kilometers. [Source article](#)

## Wendy Schmidt Clean-Up X Challenge

### X- CHALLENGE PRIZE WINNERS ANNOUNCED - ISCO CONGRATULATES THE WINNERS

First Place \$1M Winner - Team Elastec / American Marine from Illinois



[Click to view competition video](#)

## Wendy Schmidt Clean-Up X Challenge (continued)

**Elastec / American Marine** - Elastec / American Marine, based out of Illinois, is a manufacturer of oil spill and environmental equipment with a reputation for innovation in machinery design. A self-funded, privately held Midwest Corporation, Elastec / American Marine has grown to become one of the largest manufacturers of oil spill equipment in North America. Their company, which started over 20 years ago as just an idea, has grown into a 100+ employee operation that has a world-renowned reputation. Using local talent for nearly all of their fabrication, Elastec / American Marine is proof that small town values transcend to a global market.

### Second Place \$300,000 Winner - Team NOFI from Norway



[Click to view competition video](#)

**NOFI** - A distant journey from their home town of Tromsø, Norway, team NOFI tested their single vessel unit called the Current Buster 6, which collects, separates and stores oil in an alleged current up to five knots. Their system, incorporating a flexible v-shaped surface boom towed between two vessels or alongside one (via an overhead arm), corrals oil down to the end of the V where a separator removes it from the water.

[Read more](#) [Related report \(1\)](#) [Related report \(2\)](#)

## Special Feature

### THE NEED FOR RESPONDER IMMUNITY ENHANCEMENTS BASED ON LESSONS LEARNED FROM THE *DEEPWATER HORIZON* INCIDENT

At the ISCO AGM held in May this year during IOSC at Portland, Oregon, USA, Members expressed their serious concern about reports that a great many of the contractors who responded to the *Deepwater Horizon* are being sued by a variety of parties and, in consequence, are being exposed to crippling claims and defence costs with potential to put some response contractors out of business and seriously damage others.

The Minutes of the ISCO AGM reported – “The Oil Pollution Act of 1990 provides limited Contractor immunity. The *Deepwater Horizon* spill has resulted in multiple lawsuits attempting to break this immunity with the resultant threat that responders may be reluctant to respond as readily in future events. The impact of multiple lawsuits can be crippling to businesses and an initiative will be started to strengthen the immunity for responders. ISCO is very concerned about this issue and will follow and respond accordingly as further information about the initiative is provided”.

Recently Jon Waldron of Blank Rome, who has been spearheading efforts to enhance contractor immunity has written to your editor advising “We have finalized proposed legislation and are now working to get it introduced”. Jon also sent a new article and this is published below.

### **Deepwater Horizon Good Samaritans Stuck in Litigation**

BY JONATHAN K. WALDRON



Immediately following the explosion on the *Deepwater Horizon*, emergency response vessels rushed to the rig to save lives and render assistance to those in peril. In the ensuing months, responder companies worked to clean up the oil that was pouring into the gulf in an effort to mitigate the spill. As a consequence of these efforts to help in the worst environmental disaster in U.S. history, these emergency and cleanup responders now find themselves entwined in complex and protracted specialized multi-district litigation (“MDL”), despite the fact that protections were put in place following lessons learned from the *Exxon Valdez* specifically to prevent such occurrences.

## Special Feature (continued)

### Background on the Good Samaritan Law under the Oil Pollution Act of 1990 (“OPA 90”)

Following the *Exxon Valdez* incident in 1989, Congress included a responder immunity provision in OPA 90 to protect from liability those individuals or corporations who provide care, assistance, or advice in mitigating the effects of an oil spill. As detailed in the OPA 90 Conference Report, Congress intended that responses to oil spills be immediate and effective, and noted that, without such a provision, the substantial financial risks and liability exposures associated with spill response could deter a prompt, aggressive response. This immunity does not prevent any injured party from recovering its full damages resulting from the spill incident, as OPA 90 provides that the responsible party (“RP”) is liable for any of the removal costs or damages that a responder is relieved of pursuant to this immunity consistent with the OPA 90 “polluter pays” principle. This immunity does not apply if a responder acts with gross negligence or willful misconduct, or in cases involving personal injury or wrongful death.

### Litigation against Good Samaritans as a Result of the *Deepwater Horizon* Incident

Following the *Deepwater Horizon* incident on April 20, 2010 — which resulted in 11 deaths, injuries to 17 men working on the platform, the discharge of approximately five million barrels of oil, and required thousands of responders to work several months to contain and clean up under the challenging conditions—numerous claims and lawsuits were filed. Unfortunately, the OPA 90 standard specific to responders has proven inadequate to protect responders from becoming entwined in such suits. In these cases, plaintiffs have thus far been successful in maintaining their actions simply by alleging gross negligence (without providing any supporting facts), and by asserting “exposure” claims resulting from alleged exposure to released oil or from approved dispersants used to treat that oil as personal injury claims falling outside the scope of the specific responder immunity provisions. Following the filing of hundreds of law suits, it was decided to consolidate all of the complaints under a special MDL procedure designed to speed the process of handling complex cases, such as air disaster litigation or complex product liability suits. MDL cases are civil actions involving one or more common questions of fact pending in different districts. With a goal to efficiently process cases that could involve an extremely large number of plaintiffs in many different federal courts which all share common issues, a Judicial Panel on Multidistrict Litigation decides whether cases should be consolidated under MDL and where to transfer the cases. The *Deepwater Horizon* litigation was consolidated in the Eastern District Court of Louisiana before Judge Barbier.

For the *Deepwater Horizon* MDL, the cases have been catalogued into pleading bundles called Master Complaints under various categories. One of the Master Complaint bundles named as defendants all the parties involved in the post explosion response actions, which includes the manufacturer of the dispersants used, the companies providing the aircraft spraying dispersants, the contractors leading the incident command for BP, as well as the nation’s two leading oil spill response contractors. This complaint alleges various torts causing personal injury as a result of exposure to oil and/or dispersants and damages to personal and real property as a result of dispersants or oil coming into contact with such property.

A separate Master Complaint bundle named as defendants all the owners and/or operators of the rescue vessels that answered the *Deepwater Horizon* distress call and responded to the fire emergency after the explosion. Due to the complexity of the MDL, the litigation is expected to last for years. Substantial time is being spent in discovery and motions, and the priority of the litigation is mainly and naturally focused on the complaints directly against the RPs. Court activity related to the responders is for the most part being deferred in order to deal with the direct actions against the RPs. As a result, the responders will incur millions of dollars in attorneys’ fees and other costs in defending these suits—money that could otherwise have been spent on new equipment or in enhancing the nation’s ability to respond to oil spills.

These actions against the Good Samaritans are troubling because the OPA 90 immunity regime is intended to protect responders from extensive and costly litigation and potential liability. Although the responders have argued for immunity and preemption against liability as it relates to the *Deepwater Horizon* claims asserted against them in the current litigation, these defenses are proving to be time consuming and expensive to assert, and there is no consequence to the plaintiffs for bringing claims against the responders, even when they have full recourse against the RP.

### Formation of Coalition to Improve Good Samaritan Protections

Absent enhanced liability protections, it is unlikely that responders will again take such immediate and bold response actions at the time of spill incidents. Indeed, as a result of this incident, responders are requiring extra layers of indemnification as well as seeking detailed directions and approvals from government officials before taking any response actions. These types of action are not in the overall public interest and are inconsistent with the overall intent of OPA to encourage a prompt and aggressive response to minimize damage to the greatest extent practicable. Currently, there is a strong initiative underway to represent the overall common interests of the response industry through the formation of a coalition to seek enhanced legislation to fill the immunity gaps identified as a result of the

## Special Feature (continued)

*Deepwater Horizon* incident. This coalition broadly represents interests related to emergency lifesaving and firefighting, salvage, oil well containment, spill response, dispersants, and spill management. A legislative solution is particularly important as these entities constitute the first responders to both the casualty itself and the resulting oil spill, and their response must be immediate and without hesitation for fear of liability.

Proposed legislation is being crafted and will be introduced in Congress in the near future following the return of Congress from the summer recess. Of course, Congress will have a number of priorities to combat when it returns, including war related issues, the economy, and the nation's deficit. As a result, it is unclear when Congress will turn to maritime, including spill related, legislation. When it does, however, it is imperative that the maritime industry rallies around this response industry coalition initiative to ensure enactment of "Good Samaritan" enhancements as quickly as possible. Hopefully, based on lessons learned from *Deepwater Horizon*, we can make sure our nation's response industry has the necessary tools in its tool kit, including a liability regime with a properly enhanced immunity protection necessary to foster the aggressive and immediate response we will need for the next major spill incident.

## Cormack's Column



In this issue of the ISCO Newsletter we are printing No. 47 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](#)

Reflecting a change in the focus of the series, the title changes to "Knowledge of Dispersant Use"

## KNOWLEDGE OF DISPERSANT USE (CHAPTER 47)

Having seen that the lapse of 7.5 half-lives of a first order reaction reduces the amount remaining to ~1% of the initial amount, and that lapse of another 7.5 reduces it to 0.01%, we see that observation of the visible limit of spreading and its subsequent reduction is a more convenient and reliable means of determining half-lives as a function of viscosity than is attempting to predict dispersion rates by mathematical modelling given the assumptions usually introduced to compensate for the absence of such observational knowledge. Again, in the following articles on spillage response by dispersant application, we will see that our knowledge of natural dispersion makes it extremely unlikely that any attempt at induced dispersion will be rewarded with the observation of instant success.

Under conditions of 1-3 knot wind speed and sea state 1, the WSL team discharged 0.5 tonnes of Ekofisk oil to the sea, measured the layer thickness, applied dispersant to it and measured the resulting sub-surface oil concentrations. In contrast to natural dispersion which had previously produced concentrations between 2 and 0.02ppm, dispersant application to the layer thickness 3 hours after discharge was such as to have produced 25ppm in the top metre of seawater. Indeed, it was found to average 18ppm at the sampling depth of 30cm. Thus, in these calm conditions with low levels of natural agitation limiting immediate dilution to greater depths, the adequacy of the sampling and analytical techniques were demonstrated and thus conveyed to ASTM in 1977. With these sampling/ analytical techniques, the WSL team proceeded to investigate the concentrations of dispersed oil in the water beneath dispersant-treated slicks using a fanjet apparatus which laid carpets of oil 0.3m wide on the sea surface from the moving trials launch at thicknesses up to 1mm depending on discharge pump rate and launch speed while another fanjet 100cm behind the first laid dispersants on the oil carpet. The results obtained at 30cm depth beneath an oil carpet 1.0mm thick are tabulated below.

Time after treatment minutes.	Concentrations of Kuwait Crude Oil		
	run 1	run 2	run 3
0	34.4	24.2	0.85
1	-	15.8	-
2	47.8	-	8.7
2.5	-	12.2	-
5	-	9.4	-
7	17.8	-	3.5
10	-	5.2	-
15	-	-	1.7
18	1.9	-	-
25	-	4.2	-
40	-	1.9	-
80	-	-	1.5
100	2.2	0.8	-

On the above occasion wind speed was 8-10 knots with sea state 2-3, the level of agitation was consistent with initial concentrations being low and rapidly diminishing by dilution to greater depths. It should also be recalled that the layer thickness



## Cormack's Column (continued)

was 10 times that of Phase II spreading, that the measured concentrations are thus potentially 10 times higher than for natural slicks of 0.1mm thickness and that the higher thickness of the above trial was chosen in order to ensure the production of measurable subsurface concentrations.

It should be noted also that in 1977 McAuliffe *et al* were reporting to ASTM that C<sub>2</sub> - C<sub>10</sub> hydrocarbons could only be detected at 2-60 µg/l<sup>1</sup> in the first 30 minutes after discharge because they rapidly evaporate to < 1 µg/l<sup>1</sup> and that while benzene and cyclohexane have very different solubility in water, their similar vapour pressures ensure that they both evaporate rather than dissolve or disperse. However, while we know that the non-volatile fraction of Ekofisk oil *i.e* 70% of the daily release rate of 3600tonnes (2500 tonnes) were dispersing per day, we also know that such a rate could not be enhanced significantly by dispersant application over operationally localised areas within the total area of 80km x 35km which was that of the equilibrium slick. Thus, however effective dispersants may be, their pollutant encounter rate remains a problem as it does for mechanical recovery.

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

## Events

### CLEAN GULF 2011 – FINAL CONFERENCE TRAINING PROGRAMME JUST RELEASED

Register today with promotional code **CGFINAL** and join more than 2,000 of your peers in the oil spill response industry at the CLEAN GULF Training Event & Exhibition, taking place November 30 – December 1, 2011 in San Antonio, Texas

#### Conference Highlights Include:

- Keynote Address Delivered by:
  - Jerry Patterson, Texas Land Commissioner, Texas General Land Office/Oil Spill Prevention & Response
  - Rear Admiral Paul Zukunft, Assistant Commandant for Marine Safety, Security & Stewardship, United States Coast Guard
- Mega Session: The Gulf – Open for Business
  - ISPR Review and Perspectives on the New Regulatory and Operating Environment
- Response Equipment and Technologies
- Collaborative Management of Spill Incidents
- SIMOPS and Response Challenges
- Unified Command – Past, Present & Future



[View digital version of the final training program](#)

[View the final conference training program](#)

#### Co-Located Events at CLEAN GULF will bring in a wider variety of attendees than ever before:

- Deepwater Prevention & Response Conference
- INDUSTRIAL FIRE, SAFETY & SECURITY Training Event & Exhibition
- Spill Control Association of America "Send Off" Reception
- USEPA Outreach Workshop on Facility Response Plan (FRP) & Spill Prevention, Control and Countermeasure (SPCC)
- Region 6 RRT Meeting

[Register Today for the CLEAN GULF Training Event & Exhibition with promotional code: CGFINAL](#)

For information on how to send a large group from your company to CLEAN GULF at a reduced price, contact Jill Dean at 713-343-1880.

## Events (continued)

### MEDITERRANEAN REGIONAL EXERCISE

**Pool of Experts Observers – First exchange during the exercise RAMOGEPOL HAVEN 2011**

Date: 24/10/2011 - 25/10/2011  
Genoa (Italy)

The Tenth Meeting of Focal Points of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), held in Malta between 2 and 5 May 2011 pointed out that national contingency plans should be tested through regular exercises and that an external expert advice capacity was needed in order to assist the countries in improving their procedures.

It was also decided to establish a pool of expert to attend exercises as observers. In this regard, REMPEC initiated the process of establishing the pool of experts by requesting its Focal Points to nominate a national representative.

On the occasion of the oil spill response exercise RAMOGEPOL HAVEN 2011 which will take place on 24th October 2011 in Genoa within the framework of the sub-regional Agreement RAMOGE between France, Italy and Monaco, an expert nominated by Tunisia will attend the exercise. This first exchange will mark the beginning of the cross-fertilization of knowledge and experience through the Mediterranean.

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### USA: PITTSBURGH TO HOST EMERGENCY PREPAREDNESS CONFERENCE : OCT 29 – NOV 1

Co-sponsored by the U.S. Environmental Protection Agency and the Pittsburgh Regional Business Coalition for Homeland Security, the annual conference is expected to attract more than 700 disaster experts from across the country. It will be held at the Wyndham Grand Hotel, located at 600 Commonwealth Place in downtown Pittsburgh.

The conference offers an opportunity for emergency responders to obtain valuable training in terrorism awareness, radiation accidents, and other emergency response challenges. The conference also offers an ideal setting for local responders such as firemen, police officers, and paramedics to share new ideas and success stories on what they are doing in their communities to prepare for and respond to emergencies.

More than 100 exhibitors also will be displaying the latest trends of state-of-the-art emergency equipment, protection gear and technologies that are available to help emergency responders provide the best service possible.

More details and registration information are available at the conference website: <http://www.2011conference.net> or by calling the conference hotline at 1-800-364-7974.

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### CANADA: INTERNATIONAL SITES & SPILLS EXPO

The International Sites and Spills Expo is the newest industry event dedicated to all elements of the HazMat and Site Remediation industries including a full conference program as well as a trade show. The International Sites and Spills Expo will bring together engaging speakers, expert panelists and key suppliers of products, services, technologies and equipment to hundreds of daily practitioners in the fields of spill response, fire fighting, HazMat management, environmental protection, development, restoration, contaminated site cleanup and soil/groundwater remediation.

The International Sites & Spills Expo – the first event of its kind to combine hazardous materials management and site remediation – comes together in an exciting two day event in the Canadian marketplace.

#### **Preceding the International Sites and Spills Expo**

On Wednesday November 2, 2011, two workshop training programs will be held from 1:00 p.m. to 4:00 p.m. One workshop will focus on HazMat response training while the other will focus on Phase I Site Condition Requirements. Workshops are available for \$149.00 each.

**The International Sites & Spills Expo** will take place November 3 – 4, 2011 at the International Centre, near Pearson International Airport in Toronto, Ontario.

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## Publications

### EUROPE: REVIEW & EVALUATION OF THE MAR-ICE SERVICE FOLLOWING ITS FIRST TWO YEARS OF OPERATION (2009-2010)

The MAR-ICE Network was created in 2008 through a 3-Party Memorandum of Understanding (MoU) between the European Chemical Industry Council (Cefic), the Centre of Documentation, Research and Experimentation on Accidental Water Pollution (Cedre) and the European Maritime Safety Agency (EMSA) and became operational in January 2009. This report is an evaluation of the first 2 years of operation. [MAR-ICE Review 2011.pdf](#)

## Company News

### VORAXIAL TECHNOLOGY WINS GREEN AWARD IN OMAN

Now into its second edition, Oman Green Awards 2011 has come of age as a platform to honour and appreciate outstanding environmental vision and achievements in the Sultanate.

The Voraxial Technology introduced by Al Abrar Petrogas has significantly contributed to combat oil spillage and treat contaminated water.

Al Abrar Petrogas has introduced Voraxial Technology as an innovative solution for recovering oil from oil spills and produced water used by oil producing companies. The use of this technology will protect water resources, ground water and sea water from contamination. It was tested during the Gulf of Mexico spillage and the results surprised many people. The technology will also help oil producers and refineries which dump produced water or waster into Oman Sea to treat such wastes and meet environment standards. It will be of great importance to dry dock ports where there are a lot of oil spills by ships which come for services. This technology will be able to treat the water and recover the oil and return the clean water back to the sea. Voraxial Technology also helps in reducing CO2 emissions as it uses less power and energy.

The Voraxial is efficient as a liquid/liquid, liquid/solid or liquid/liquid/solid separator. The Voraxial Separator is a compact, 2-way or 3-way separator that is able to process large volume of liquids with a small footprint and without any pressure loss. The Voraxial produces a high centrifugal force and generates a vortex to separate a mixture of fluids or a combination of fluids and solids by their different densities. The heavier elements are drawn to the outside of the vortex while the lighter materials are drawn toward the centre, forming the central core of the vortex. A specially designed manifold is utilised at the exit of the separation chamber to collect the separated streams. [Read more](#)

## ISCO Notices

### APOLOGY FOR LATE DELIVERY

Around 500 readers of the ISCO Newsletter did not receive the most recent issue until the middle of the week. We apologise for this. When readers complained your editor investigated and found that our contractor managing the sending out of the Newsletter had experienced a "configuration error". This was promptly rectified, apologies were received, and assistance was given in sending the Newsletter to all the affected subscribers.

Sometimes things do go wrong and from time to time readers tell me that they haven't been receiving the Newsletter. If this happens to you, please let us know ASAP.

Remember that you can always find the current Newsletter (and back issues) on the ISCO Website – Go to <http://www.spillcontrol.org> and click on NEWS.

### DO YOU FIND THE NEWSLETTER USEFUL AND INTERESTING?

If the answer is yes and you are not yet a member of ISCO, you can help support the organization and ensure the continued publication of the Newsletter by joining now.

You can join online by clicking on [Application Form](#) and membership is not expensive.

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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.

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