



# ISCO NEWSLETTER

The Newsletter of the International Spill Response Community  
Issue 300, 12 September 2011

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

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## News

### THE FUTURE OF INTERNATIONAL ENVIRONMENTAL LAW

The history of environmental law is one of ad hoc decision-making. Historically, environmental legislative change has followed industrial age environmental disasters. Our environmental legal system is defined by the environmental damage inflicted on our land. Thus, the scars from industrialization not only mar our landscape, they also define our legal approach to healing and preserving it.

At present, we remain in the wake of two epic environmental disasters, the [BP Deepwater Horizon oil spill](#) and the Fukushima Daiichi nuclear plant failure. Both disasters are linked directly to the global demand for energy. As the supply of natural resources tightens, greater risks are required to retrieve less. Thus the scale of the potential impact broadens, creating transnational and global environmental problems. As public concern mounts and social unrest grows, lawmakers in many nations are faced with drafting laws aimed at achieving energy independence while sufficiently regulating the exploration, development and implementation of energy sources. In such an environment, we are sure to experience a new wave of environmental legislative change not seen since the 1970s.

The 1970s are often looked on as a time of a truly citizen-based environmental movement. In the wake of the Vietnam War and the civil rights movement, Americans such as Rachel Carson with her famous book *Silent Spring* forced lawmakers to adopt extensive and innovative provisions on the protection and preservation of the environment. However, the legal issues, public concern and increased risks surrounding energy consumption and development today can no longer be addressed entirely at the national level. Developing a legal framework to mitigate and prevent disasters such as the Deepwater Horizon Oil Spill and Fukushima will require an international environmental legal framework. [Read more](#)

## PIPELINE SAFETY: POTENTIAL FOR DAMAGE TO PIPELINE FACILITIES CAUSED BY THE PASSAGE OF HURRICANES

USA Pipeline and Hazardous Materials Safety Administration - PHMSA is issuing this advisory bulletin to remind owners and operators of gas and hazardous liquid pipelines of the potential for damage to pipeline facilities caused by the passage of Hurricanes.

The purpose of this advisory bulletin is to remind all owners and operators of gas and hazardous liquid pipelines, particularly those with facilities located in offshore and inland areas, about the serious safety-related issues that can result from the passage of hurricanes. That includes the potential for damage to offshore platforms and pipelines and onshore pumping stations, compressor stations, and terminals. [Read more](#)

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## ARCTIC OIL EXPLORATION: POTENTIAL RICHES AND PROBLEMS



With current oil reserves coping with increased pressure from emerging markets in China and India, the Arctic and its seas are seen as being of crucial importance.

US oil giant Exxon Mobil, which this week signed a multi-billion dollar deal with Rosneft to explore the Russian Arctic, described the area as "among the most promising and least explored regions for oil".

Experts have known the region is rich in oil and gas reserves, but it didn't realise how much potential until 2009.

In new findings that year, the US Geological Survey estimated the Arctic may be home to 30% of the planet's undiscovered natural gas reserves and 13% of its undiscovered oil ... An interesting article from BBC News correspondent James Cowling comments on oil production potential and concerns regarding the consequences of a major spill event. [Read more](#)

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## WWF REPORT SHOWS LIMITED RESPONSE POSSIBLE TO ARCTIC OIL SPILL

If a major oil spill happened in the Arctic today, it would be impossible to clean it up much of the time. In fact, WWF analysis of National Energy Board (NEB) commissioned research indicates a clean-up would not be possible 44 to 84 per cent of the short Arctic drilling season. For the remaining seven or eight months of the year, during the ice-covered winter, no spill cleanup would be possible.

Clean-ups would be impossible due to environmental conditions such as winds, waves, temperature, visibility and daylight.

This information comes at a crucial point as major international companies look to the Arctic Ocean for new sources of valuable oil resources. The NEB is currently reviewing the issue, providing an important opportunity to lay the groundwork for sound planning and sustainable development.

WWF's complete report assessing when cleanups are possible is available at [http://assets.wwf.ca/downloads/wwf\\_neb\\_letter\\_of\\_comment.pdf](http://assets.wwf.ca/downloads/wwf_neb_letter_of_comment.pdf)

WWF is working to help establish best practices for Arctic offshore development based on accurate scientific data. [Read more](#)

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## U.S. IS URGED TO PLAN TO AID CUBA IN CASE OF AN OIL SPILL

September 8 - The United States should urgently make plans for helping [Cuba](#) in the event of an offshore [oil spill](#) as it prepares to begin exploring fields opposite Florida this year, William Reilly, the co-chairman of a commission that examined the Deepwater Horizon spill, said during a visit here.

Mr. Reilly, who met with Cuban officials, said they were hungry for expertise about offshore [oil](#) development and happy to get it from the United States. "It seems to me to be profoundly in the interest of the United States to ensure that, if there should be a spill in Cuban waters, all efforts are undertaken by both government and private entities in the United States to assist in responding," he said Wednesday.

Mr. Reilly was part of a delegation organized by the Environmental Defense Fund and the International Association of Drilling Contractors, who have found common cause in pressing their message on the risks of shunning Cuba as it makes its first full-scale push into [offshore drilling](#). [Read more](#)

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## NEWS ABOUT SHALE GAS DEVELOPMENTS

### US Shale Gas Development to Reach \$50 Billion by 2015

MarketResearch.com has announced the addition of the new report 'Shale Gas' to their collection of Energy market reports.

Demand for products and services used in U.S. shale gas development will grow to nearly \$50 billion in 2015 as industry activity continues to escalate in the emerging Marcellus, Haynesville and Fayetteville shale plays. While shale gas drilling will slow from the rapid buildup of the 2005-2010 period, the industry will still bring more than 8,000 new producing wells online through 2015. Increasing demand for drilling and completion products and services for new shale gas wells will be accompanied by growing markets for work-over, re-stimulation, and well site reclamation services in areas where production is maturing. [Read more](#)

### Canada: Oil and Gas Group issues Fracking Principles



*A crew member with Calgary's Trican Well Service Ltd. takes a break outside a fracking operation in southern Alberta. On Thursday, the Canadian Association of Petroleum Producers released five principles to govern the practice.*

The lobby group that represents most of Canada's major oil and gas producers has released a set of five guiding principles to govern the use of controversial hydraulic fracturing or fracking enhanced recovery methods.

The Canadian Association of Petroleum Producers guidelines are designed to reassure the public and come one day after New York State's environmental regulator extended by 30 days until Dec. 12 a public comment period on rules for natural gas drilling that could end its year-long ban on hydraulic fracturing.

The decision was frustrating to companies keen to open New York's portion of the gas-rich Marcellus shale deposit but welcomed by critics who fear the method, which involves breaking up tight rock formations deep underground using pressurized liquids and chemicals, will endanger groundwater. [Read more](#)

### Is Fracking Safe? The Top 10 Controversial Claims about Natural Gas Drilling

Members of Congress, gas companies, news organization, drilling opponents: They've all made bold claims about hydraulic fracturing (fracking) and the U.S. supply of underground natural gas. We take on 10 controversial quotes about natural gas and set the record straight.... An interesting article and well worth reading. To let you sample, here's the first claim -

#### Claim No. 1

**"WE ARE THE SAUDI ARABIA OF NATURAL GAS."**

*SEN. JOHN KERRY, D-MASS., MAY 2010*

Less than a decade ago, industry analysts and government officials fretted that the United States was in danger of running out of gas. No more. Over the past several years, vast caches of natural gas trapped in deeply buried rock have been made accessible by advances in two key technologies: horizontal drilling, which allows vertical wells to turn and snake more than a mile sideways through the earth, and hydraulic fracturing, or fracking. Developed more than 60 years ago, fracking involves pumping millions of gallons of chemically treated water into deep shale formations at pressures of 9000 pounds per square inch or more. This fluid cracks the shale or widens existing cracks, freeing hydrocarbons to flow toward the well.

These advances have led to an eightfold increase in shale gas production over the past decade. According to the Energy Information Administration, shale gas will account for nearly half of the natural gas produced in the U.S. by 2035. But the bonanza is not without controversy, and nowhere, perhaps, has the dispute over fracking grown more heated than in the vicinity of the Marcellus Shale. According to Terry Engelder, a professor of geosciences at Penn State, the vast formation sprawling primarily beneath West Virginia, Pennsylvania and New York could produce an estimated 493 trillion cubic feet of gas over its 50- to 100-year life span. That's nowhere close to Saudi Arabia's total energy reserves, but it is enough to power every natural gas-burning device in the country for more than 20 years. The debate over the Marcellus Shale will shape national energy policy—including how fully, and at what cost, we exploit this vast resource.

## IAEA TO CALL FOR NUCLEAR CRISIS TEAM

The International Atomic Energy Agency will call on its members to establish an emergency team to respond to major nuclear accidents worldwide, part of an agency plan to enhance nuclear safety, according to a draft obtained Tuesday.

The Vienna-based nuclear watchdog also plans to dispatch safety investigators within three years to all member countries who operate nuclear power plants, following the Fukushima nuclear crisis, according to the draft.

The document is scheduled to be approved by a meeting of the IAEA's board of governors to be held Monday to Sept. 16. [Read more](#)

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## MAJOR NORWAY DISASTER EXERCISE UNDERWAY

*Picture - Rescue crew on board MS 'Bohus'*

September 7 - SkagEX11" is a joint exercise involving Norwegian, Swedish, and Danish civil protection authorities and the EU's Monitoring and Information Centre ([EU MIC](#)) expert team, to test cooperation in the event of a major ship disaster in the Skagerrak basin.

The scenario starts with a fire in the engine room of Color Line's MS "Bohus" passenger ferry between Strömstad and Sandefjord, subsequently colliding with the oil tanker "Oslo tank", causing a massive oil spill near the [Ytre Hvaler National Park](#).

Ytre Hvaler is Norway's only marine life preservation area, with a rich underwater ecosystem containing corals and kelp forest, and land areas with a varied plant and animal life. The park was the scene of [February's accident](#) involving the Icelandic container ship "Godafoss", which grounded in relatively calm seas, causing an [oil slick that spread](#) to the Agder coastline.



Norway's Directorate for Civil Protection and Emergency Planning (DSB), responsible for organising and carrying out the operation, says, the simulation "creates a scenario with two distressed ships that must be dealt with simultaneously. The situation calls for firefighting, evacuation, and search and rescue (SAR) at the accident site"

MS "Bohus" passengers will be airlifted to several locations with reception centres on both sides of the Oslo Fjord. Casualties sent by air to Sweden will be transported for further treatment in local hospitals and other medical facilities.

DSB Project Leader Per Øyvind Semb tells NRK, "the Coastguard will be alerted and arrive with its vessels to help clean up the oil by using popcorn."

In addition to firefighting and rescue teams from all the Nordic countries except Iceland, the operation also involves Scandinavian pollution response efforts, embassies, government agencies and ministries, local municipalities, and certain volunteer organisations. [Read more](#)

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## USA: ECOLOGY TO TEST OIL SPILL RESPONSE IN DUNGENESS BAY

September 7 -The Washington Department of Ecology (Ecology) will test the ability of an industry-sponsored company to respond to oil spills during an exercise in Dungeness Bay on Thursday, Sept. 8, 2011.

Marine Spill Response Corp. (MSRC) will deploy boats, oil-skimming equipment, and oil-containment boom Thursday morning in Dungeness Bay near Port Angeles.

"Being prepared for oil spills is part of Ecology's effort to reduce toxic threats to public safety, health and the environment, and to support the statewide initiative to protect and restore Puget Sound," said Linda Pilkey-Jarvis, manager of Ecology's spills preparedness section.

By participating in the drill, MSRC's customers will fulfill part of the Washington state oil-spill preparedness requirements. Larger ships and facilities must develop, update and practice oil spill contingency plans.

MSRC is a private, not-for-profit company funded by the Marine Preservation Association whose members include companies that develop, produce, refine and transport petroleum and petroleum-based products. Five of these companies are sponsoring the drill: Polar Tankers, BP Shipping, Alaska Tanker Co., Harley Marine Services and SeaRiver Maritime. [Read more](#)

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## CHINA: CONOCOPHILLIPS TO ESTABLISH BOHAI BAY FUND

September 7 - ConocoPhillips announced that it will establish a fund related to the incidents at the Peng Lai 19-3 field in Bohai Bay, China. This fund will be designed to address ConocoPhillips' responsibilities in accordance with relevant laws of China and to benefit the general environment in Bohai Bay.

"ConocoPhillips deeply regrets these incidents and apologizes for the impact that the incidents have had on the Chinese people and the environment," said James J. Mulva, Chairman and Chief Executive Officer, ConocoPhillips.

ConocoPhillips China will seek to work with the relevant Chinese authorities and its co-venturer in the field, China National Offshore Oil Corp., regarding the establishment and operation of the fund. [Read more](#)

## Report – Offshore Europe 2011

### UK: OFFSHORE EUROPE 2011

Last week your editor visited Offshore Europe 2011, which took place in Aberdeen over 6-8 September. With no less than six exhibition halls and numerous outside exhibits, the event was the largest yet. ISCO members were not well represented and, given the high level of concern regarding offshore oil spills, it was surprising that none of the major oil spill response companies were exhibiting. If just one had been present, it would have had a monopoly of the attention of visitors interested in this matter.

For those of us with an interest in marine pollution control, highlights were the opportunity to see the blowout capping systems from OSPRAG and Wild Well Control – see below.

Other spill response exhibitors included J.P. Knight (Caledonian) Ltd., based in Invergordon, who provide onshore and offshore spill response services in the north of Scotland <http://www.jpknight.com/> and Alnmaritec Ltd., based in Blyth, Northumberland, who build rapid intervention aluminium spill response vessels <http://www.alnmaritec.co.uk/>

#### The OSPRAG Well Capping Device



Your editor was able to view this major piece of new equipment, designed to be a key element of the UK offshore oil and gas industry's oil spill response capability. It has been constructed, tested and is available for deployment. The capping device was revealed on Tuesday 6th September 2011 by UK Energy Minister, Charles Hendry MP, at the SPE Offshore Europe 2011 conference in Aberdeen.

The cap is rated for deployment in water depths up to 10,000ft on wells flowing up to 75,000 barrels per day at 15,000 psi. This is a much greater depth than any of the deepest wells in the UKCS. Its portable size and weight also makes it relatively easy to deploy quickly from a wide range of vessels, even during short weather windows.

The unit, which weighs about 40 tonnes, will be held at Portlethen, near Aberdeen and can be transported by road for mobilisation aboard a suitable offshore supply vessel. The unit is being managed by Oil Spill Response in Southampton who will initiate the mobilisation process to a nominated port. [More info](#)

#### Wild Well Control's Global Subsea Well Containment System

Courtesy of Wild Well Control, your editor was able to view this Well Containment System at nearby Dyce and also visit Wild Well Control's new offices and training school, which had just been formally opened on the first day of the Offshore Europe event.

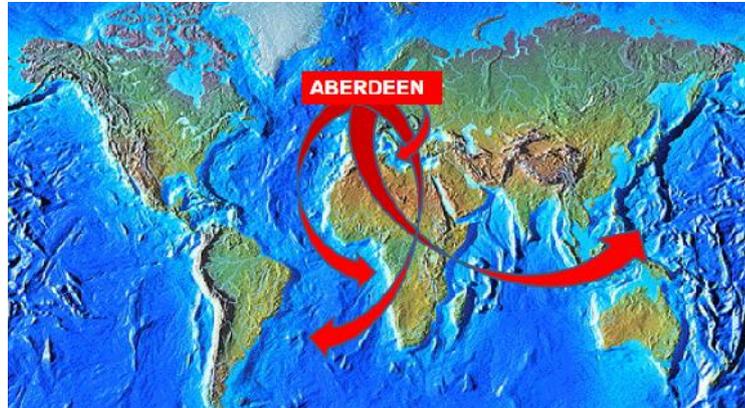
Wild Well Control's Global Subsea Well Containment System (GSWCS) is much more than just a capping device – it is an integrated package comprising the subsea capping assembly and ancillary equipment, a subsea dispersant injection system, subsea debris clearing equipment, and subsea hydraulic power unit. Provision of the hardware is complemented by a comprehensive management service covering mobilisation, deployment, and on-location operations.

The system covers all the critical aspects for well capping, containment and collection and is designed for 10,000 ft. water depth. The capping stack is designed for both well containment (shut in the well), or for diversion and collection. A 50 GPM subsea hydraulic power unit provides power and is capable of pumping hydrate inhibitors directly into the



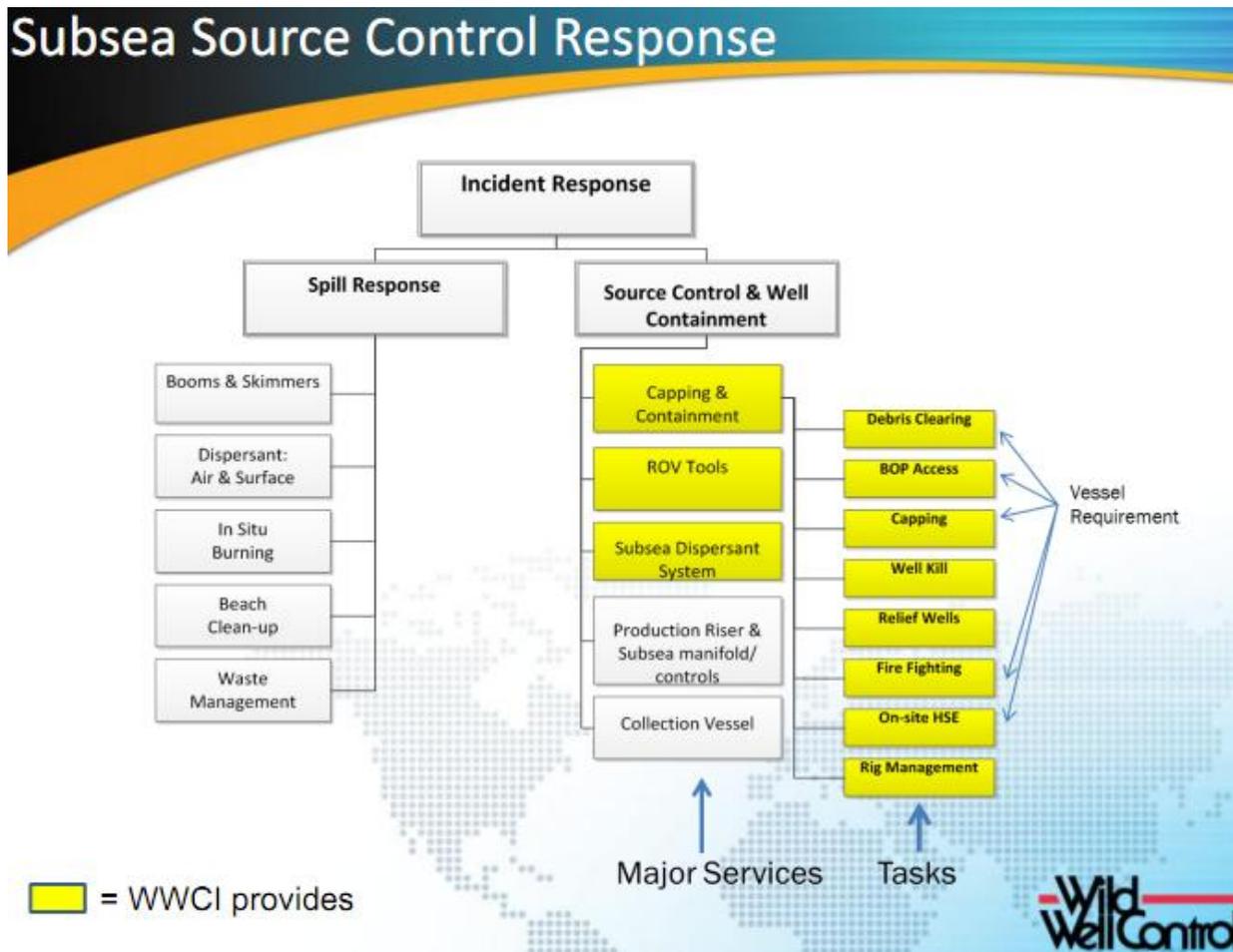
capping stack. For debris clearing activities, 660 and 2500 series shears are included in the package.

The GSWCS is being held at Peterhead, near Aberdeen, ready for immediate mobilisation by road or sea. The entire system is also modular for air transportation by Boeing 747 or Antonov 124 cargo aircraft using specially designed skids and containers held ready for this purpose.



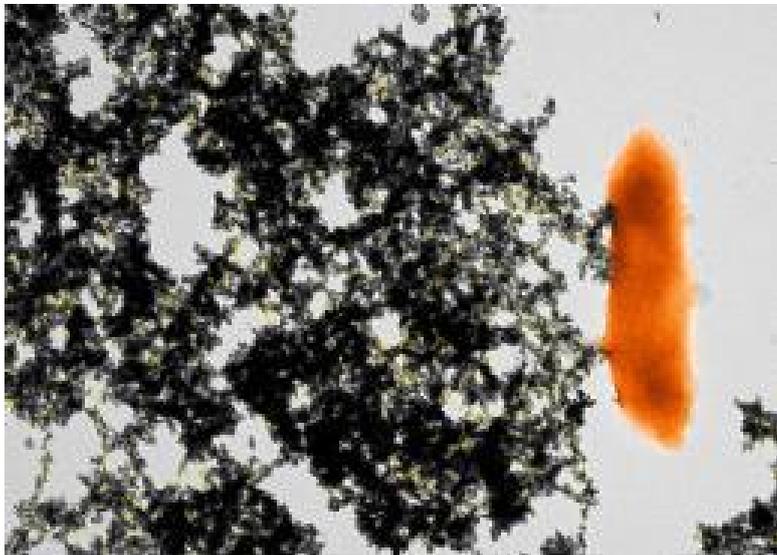
In cases where the destination airport is unable to provide heavy lift cargo unloading facilities, special offloading equipment can be carried in order to overcome this problem.

The schematic shown below illustrates the interface between the services and tasks carried out by Wild Well Control and others that are provided by oil spill response contractors. Stopping a spill at source has one of the highest priorities in oil pollution control and companies like Wild Well Control have a vital role within the oil spill response community.



## CLEANING UP NUCLEAR CONTAMINATION

### Mechanism by which microbes scrub radioactive contamination revealed



Hair-like filaments (yellow) allow *Geobacter* (orange) to precipitate uranium while keeping the toxic metal away from the cell. Dena Cologgi & Gemma Reguera (Michigan State University)

Hair-like filaments called pili enable some bacteria to remove uranium from contaminated groundwater. The discovery, published today in *Proceedings of the National Academy of Sciences*<sup>1</sup>, could aid in the development of radioactivity clean-up technologies.

Some bacteria, including a species called *Geobacter sulfurreducens*, are known to get their energy from reducing — or adding electrons to — metals in the environment. When uranium dissolved in groundwater is reduced in this way, the metal becomes much less soluble, reducing the spread of contamination.

Researchers have been trying to find out how the process works. They suspected that the pili might be the answer, but because *G. sulfurreducens* produces pili

only in certain environments, the process has proved tricky to study.

Key to the discovery was getting *Geobacter* to make pili under lab conditions, for example by lowering the temperature. "Standard culture conditions are like a five-star hotel for *Geobacter*," says Gemma Reguera of Michigan State University in East Lansing, who led the research. "We had to make life a little rougher for them."

Reguera and her team were then able to show that the pili greatly increase the amount of uranium that *G. sulfurreducens* is able to remove. Without pili, the bacterium reduces uranium within the cell envelope, but this poisons the cell in the process. When pili are present, however, most of the precipitation occurs around the pili, which extend away from the cell. This provides a greater surface area for electron transfer, say the researchers, as well as keeping the radioactive uranium at a safe distance.

This work ties a lot of things together," says Derek Lovley, a microbiologist at the University of Massachusetts Amherst and Reguera's former postdoctoral supervisor.

Earlier this year, Lovley published a paper in *Nature Nanotechnology*<sup>2</sup> showing that the pili on *G. sulfurreducens* are a type of 'nanowire', because they conduct electricity. The pili help to power the bacterium by transferring electrons produced during the cell's metabolism to external acceptors such as iron. The fact that pili can also reduce a metal such as uranium "provides further evidence for long-range electron transfer along the pili", he says.

The research should help to improve bioremediation — the use of biological organisms to remove pollutants from soil and water — such as clean-up of the many sites contaminated by uranium processing during the cold war. "Current methods to stimulate the growth of these bacteria in the environment are pretty crude and empirical," says Lovley. "This new mechanism will allow us to better predict how uranium can be depleted."

Reguera is most excited about the possibility of "getting away from the bugs" and making non-living devices based on nanowires. "This would allow us to work in sites where bacteria cannot live," she says, such as the Fukushima nuclear plant in Japan, which was devastated by a tsunami earlier this year.

Uranium is not the main radioisotope released at Fukushima, but Reguera sees potential for widening the reach of *Geobacter* pili. In theory, she says, they could help to precipitate out the radioactive isotopes of other elements, such as technetium, plutonium and cobalt. Reguera also envisages fine-tuning the properties of the pili: "Because these nanofilaments are made from protein, we can easily add different functional groups," she says.

Microbiologist Yuri Gorby of the University of Southern California in Los Angeles is optimistic about an emerging field that he refers to as "electromicrobiology". He points out that other microbes, such as photosynthetic cyanobacteria and thermophilic methanogens, also produce conductive nanowires. "I believe that we have only just begun to scratch the surface," he says.

[Read source article in Nature News](#) [Another related article](#)



In this issue of the ISCO Newsletter we are printing No. 42 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](#)

## KNOWLEDGE OF THE FATE OF RELEASED OIL / HNS (CHAPTER 42)

As we have seen, the half-life concept was first applied by the author to experimental releases of Ekofisk oil and was found to account for the rate of dispersion of the emulsified Ekofisk slick in the days subsequent to the well having been capped<sup>1,2</sup>. Though this approach is not entirely rigorous, it has been found sufficiently useful at subsequent spills for ITOPF to tabulate the relevant property values for the oils as reviewed in articles 40 and 41. It has also been used by the author to compare mass balances for amounts released, evaporated, dispersed and stranded with amounts which but for salvage action would have been released, evaporated and stranded, this having been done for a series of salvage-compensation adjudications under Article 14 of the Salvage Convention.

However, while gasoline, naphtha, kerosene and gas/diesel oil either evaporate or fail to form water-in-oil emulsions and are thus appropriately placed in Groups I and II as having half-lives of a few hours, it is rather less adequate to treat the solidifiers of Groups II and III as members of Group IV for which the half-life is estimated simply to be > 48 hours. In any case, even heavy fuel oils are used in the liquid state and the various grades are distinguished on the basis of viscosity as exemplified as follows.

Property (Units)	Grades (ISO Standard 8217 of 1996)		
	RMD	RME	RMG
Density at 15°C (kg/m <sup>3</sup> )	985	991	991
Viscosity at 100°C (cSt)	15	25	35
Viscosity at 15°C (cSt)	2000	5000	10,000
Pour Point: max (°C)	30	30	30

As to obtaining some information on the dispersion rates for heavy fuel oils the author turned to The Netherlands report on the *Katina Incident* of 1985 to evaluate the proportion of the release which reached shore in a known time as tabulated below.

Time	Fate of Oil	Quantities (m <sup>3</sup> )
0	Released	1624
End of Day 3	Recovered at Sea	792
Day 6	Stranded	540
Up to Stranding	Dispersed (by difference)	293

Thus, on this basis, the half-life of *Katina Incident* oil is about 5 days. Again with its density being 995 kg/m<sup>3</sup> and its viscosity at 100°F being 1250cSt, which converts to ~ 30,000cSt at 15°C, we see that this is similar to the top end of the viscosity range of Group IV and that this extends the half-life estimate of 48 hours for Group IV to 5 days for a very viscous fuel oil; and that Group IV might now be extended and subdivided for heavy fuel oils as follows.

Group	Sub-Group	Viscosity (cSt at 15°C)	Half-Life (days)
IV	1	2,000 - 5,000	~ 2 - 3
	2	5,000 - 10,000	~ 3 - 4
	3	10,000 - 30,000	~ 4 - 5

As to pour point, the ISO system provides a user with a temperature above which the oil will remain liquid as a guide to the heating of oils in handling and use, with actual pour points being generally lower than the specified maximum. Had the pour point of the *Katina* oil been 30°C, it would have been solid at sea temperature of the incident.

Again, by the late 1970s, WSL had shown that individual HNS with boiling points < 150°C evaporate totally in 1 hour when spread to layer thicknesses of the order of 0.1mm, as do all oil components boiling in this temperature-range; that all but 15 had viscosities < 5cSt; and that all but 20 had melting points in or below the ambient range. Thus, for most liquid HNS we can expect 100% evaporation and viscosities corresponding to the half-lives of Groups 1 and II and we can expect very few to be solid at ambient temperatures.

Yet again, compilation of a data base for HNS parallel to the above data for oils is a routine matter which the author now has in hand for development of the knowledge-based contingency and incident-specific action plans already intimated to the IMO OPRC-TG through ISCO papers INF 10/4, 11/4, 12/4 and 12/8, this comprehensive approach to spill response being based on substance-

## Cormack's Column (continued)

specific values for the relevant fate parameters for individual HNS and on the corresponding collective values for the substance-mixtures which are individual oils.

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.

## Wendy Schmidt Oil Clean-Up X Challenge Finalists

### THE EIGHTH IN A SERIES OF ARTICLES FEATURING THE FINALISTS IN THE COMPETITION



# NOFI

NOFI was founded in 1978 and started out as a company that primarily manufactured and sold equipment to the fishing industry. Today, NOFI is a Norwegian innovative industrial corporation concerned with the development, manufacture and sales of products and services all over the world, primarily within the maritime sector.

NOFI's oil boom products are regarded as among the most efficient in the world market. The patented NOFI Current Buster Technology is a major technological breakthrough in oil spill collection. No other oil spill equipment can operate at such high speeds and in ocean currents with the same efficiency. NOFI has presented a number of "New to the world" products and has several patents and trademarks.

NOFI has for many years been one of the most innovative suppliers within oil spill control on the world market. The company has repeatedly documented world-class equipment and expertise, most recently during the Mexico Gulf oil spill in 2010, where the NOFI Current Buster Technology was widely used.

The systems are regarded as the most efficient systems available; they have a unique ability to collect and concentrate oil in waters exposed to current as well as when towing the system at high speeds.

In the upcoming competition for the next weeks, NOFI will attend with a new product based on the NOFI Current Buster Technology combined with a newly developed pump solution in cooperation with NOREN.

The main advantage of the NOFI Current Buster Technology is the ability to operate in towing speed up to 3 - 4 knots without losing significant amounts of oil which has been documented in two Ohmsett tests (US Coast Guard 2001 and US NAVY Naval Facilities Engineering Service Center 2002). This high speed enables efficient tactical operation and also the ability to operate in areas exposed to sea current.



Picture: NOFI Current Buster Technology in the Gulf of Mexico summer 2010.

The main principle of the NOFI Current Buster technology is to collect and concentrate the oil in special guide booms partly with netting in between reducing loss of oil.

Where the guide booms meet, the oil is lifted up into the storage and separation tank by a velocity and wave driven pump.

In the storage and separation tank the oil is settled through gravity separation. If more storage volume is required the oil is transferred from the storage tank to larger capacity storage tanks by a skimmer/pump or a cluster of pumps depending on necessary capacity.

NOFI's Team is excited to attending the Wendy Schmidt Oil Cleanup X CHALLENGE.

All of our Oil Spill Control products are marketed world-wide by AllMaritim, [www.allmaritim.com](http://www.allmaritim.com)

For more information about NOFI, please visit [www.nofi.no](http://www.nofi.no)



### ARCTIC OIL SPILL CONFERENCE – LONDON - 4-5 OCTOBER 2011

Reminder – ISCO is a sponsor of this event and a 15% discount is available to our readers. This link has been specially set up to activate this discount -

<http://www.informaglobalevents.com/KA0121SCEM>

#### Hear from experts at US Coast Guard and Lamor on the latest Oil Spill Technologies

- David Dickins, P.Eng., **DF Dickins Associates**
- Stephen G. Potter, P.Eng., **SL Ross Environmental Research**
- Tim Nedwed, Engineering Associate, **ExxonMobil Upstream Research Company**
- Signe N mdal, Director of the Department of Climate and Industry, **Climate and Pollution Agency**
- David Salt, Operations Director, **Oil Spill Response Limited**
- Dr Rune Storvold, Senior Scientist, **Northern Research Institute**
- Dr Edward H. Owens, Principal, **Polaris Applied Sciences, Inc.**
- Dr Kenneth Lee, Executive Director, Centre for Offshore Oil, Gas and Energy Research, **Fisheries and Oceans Canada**
- Kurt A. Hansen, P.E., Research & Development Centre, **US Coast Guard Acquisition Directorate**
- Peter Newsom, Vice President, **DESMI Ro-Clean/AFTI**
- Saskia Sessions, Senior Technical Advisor, **Sea Alarm Foundation**
- Andrew Crawford, Senior Vice President, **Lamor Corporation**

[Click here](#) to see the full speaker list.

[Click here](#) to read the full event agenda.

#### The behaviour of offshore oil spills and appropriate response strategies are two of many topics to be discussed by the conference experts

- Regulation and legislative requirements – the Norwegian perspective
- The **behaviour of offshore oil spills** in the Arctic and the **implications for response**
- Detecting and monitoring oil in ice
- **Protection and treatment strategies** of oil spills on Arctic shorelines
- Contingency planning – **development of an oil spill response plan**
- Understanding the **long term implications of oil spill** in the Arctic
- Developing **oil spill response strategies** and reviewing oil spill response technologies
- Burning of oil in ice – a practical perspective
- The latest developments for burning in ice
- Emerging practical challenges for responding to an oiled wildlife incident in the Arctic

#### Sponsorship and Exhibition Opportunities

Boost your company profile with this targeted audience. Contact Paul Skinner at [Paul.Skinner@informa.com](mailto:Paul.Skinner@informa.com)

## Publications

### GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)

The changes in the latest revision include two new hazard categories : chemically unstable gases and non-flammable aerosols. These new categories account for hazards not previously addressed where special precautions are needed when handling, storing or transporting these items. Acetylene, a commonly used welding gas is an example of a 'chemically unstable gas'. Acetylene is unstable and can explode without an ignition source at pressures as low as 25 psi (172 kPa). For that reason, Acetylene is normally sold 'dissolved' in porous Acetone to allow for higher pressures. Additionally, a non-flammable aerosol, still presents a pressurization hazard and can explode if heated, even though it is not technically 'flammable'.

The 4th Revised Purple Book provides additional clarification of some of the hazard criteria, such as for gases under pressure or mixture cutoffs for Category 1 Carcinogens; and further rationalization of precautionary statements, such as 'P251 – Do not pierce or burn, even after use' for non-flammable aerosols as well as flammable aerosols.

Also added, is a new special labelling arrangement for materials that are only corrosive to metals and not corrosive to the skin and eyes. The new option for the Competent Authority is to allow the hazard pictogram for the 'Corrosive to metals' category to be dropped on the label for a product that is in the finished state and packaged for consumer use.

These changes in the 4th Revised Edition will still require implementation in those Countries or Agencies that have implemented, or have begun to implement, the GHS into current systems.

[Read more](#) [Download the 4<sup>th</sup> Revised Edition](#)

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## MIEUX COMBATTRE LES MARÉES NOIRES



"Never again!" was demanded forcefully by the residents of Brittany, Galicia, the Basque country and Aquitaine after the Amoco Cadiz, the Aegean Sea and the Prestige went aground.

And every time, the authorities promised that everything would be done to avoid it happening again. And yet, the Gulf of Mexico has just lived through what is perhaps the worst oil slick in living memory, without this disaster deploying irreproachable organisation or resources.

After "Chemical pollution by shipping", Michel Girin and Emina Mamaca have put their pens together once more to produce a global overview of oil slicks, draw the principal lessons from them, show what has changed in fifty years and finally propose a few additional changes likely to strengthen Man's ability to combat this scourge.

This is a 202-page publication offering an overview of the world's major oil spills. What conclusions can be made? What solutions can be implemented for better response?

Published by Editions Quai. Paperback. 192 pages. [More info](#)

## Company News

### NEW DEAL TO PREVENT ANOTHER DEEPWATER HORIZON DISASTER

A new deal will see the chances of another Deepwater Horizon type oil spill dramatically cut, according to the two companies involved. FES International is to work with Helix Energy to improve the safety of the company's work in the Gulf of Mexico.

FES International, a global provider of fluid transfer systems, and Helix Energy an offshore energy company, have created an emergency protocol called the Helix Fast Response System (HFRS).

According to FES International the impact of the Deepwater Horizon accident was increased as time 'was wasted' as 'no official protocol team' were in place in case of an emergency.

The other main issue, adding to what was a lengthy recovery operation, was the majority of oil drilling and production in the Mexican Gulf is conducted from fixed rig platforms as opposed to flexible and movable equipment.

The vessels called Floating Production Storage and Offtake (FPSO) or Floating Production Units (FPU) can be moved quickly to spill areas to help seal the problems. FES International managing director, Rob Anderson, explained that when the spill happened last year, the Helix Producer 1 was one of the only mobilised FPUs with the right equipment capable of moving location and transferring fluid from the leak.

In the event of a new emergency the Helix Producer 1 will stop all oil production and move to any area where there is a spill to stop the leak. Mr Anderson said: "We are very proud to be a part of the official safety protocol in the Mexican Gulf and to continue working with Helix Energy on such a worthwhile project.

"Earlier this year FES International and Helix Energy presented BOEMRE with a preliminary emergency procedure called the Helix Fast Response System (HFRS) that would cover the Gulf of Mexico in case of any future disasters helping to minimise risk in the region. While this has been currently being adopted as the initial precaution safeguarding the gulf, FES has been working closely with Helix Energy to develop the permanent safety procedure which is set to be introduced in October 2011." [Read source article](#)



### ALLIED ENVIRONMENTAL SERVICES, INC. ADDS SECOND SPILL RESPONSE COMMAND CENTER



Maintaining its commitment to providing the most responsive [environmental spill clean-up service](#) in northwest Ohio, Allied Environmental Services, Inc. (Allied) recently announced the addition of a second mobile spill response command center.

The new command center consists of a fully equipped, 24-foot enclosed trailer outfitted with a complete stock of sorbents, petroleum and chemical reclamation and storage equipment, personal protective gear, portable electricity generation and flood lighting package.

According to Dan Clemens, Allied Operations Manager, a second response unit was necessary to provide wider geographic coverage and to meet an increase in the number of emergency spill response calls the company is receiving.

“When dealing with an environmental emergency, response time is everything. In order to respond effectively, we need to mobilize immediately with a full range of equipment,” stated Clemens. “When you arrive on a spill site, you never know exactly what the conditions will be,” Clemens continued, “the two command centers allow us to mobilize a very broad spectrum of equipment the instant a call is received.” [Read more](#)

## ISCO Announcements

### MEMBERS – ARE YOU TAKING FULL ADVANTAGE OF YOUR ISCO MEMBERSHIP?

- Keeping up-to-date by reading your free ISCO Newsletter
- Raising your profile by contributing news about new products, technical developments, other items of interest
- Submitting articles for publication on R&D and other matters of interest to the international spill response community
- For Corporate Members – Free banner ad with link to your website in ISCO’s International Directory of Supplies & Services
- Using the ISCO website to promote / get info on upcoming conferences, seminars, exhibitions and training courses
- Using the ISCO website to access technical information, guidelines, software tools, and other useful aids
- Networking with other members, using the ISCO LinkedIn group facility
- Raising your profile by submitting information being requested by ISCO on behalf of the IMO OPRC-HNS Technical Group
- Taking advantage of registration discounts available to members for conferences being sponsored by ISCO
- Getting help in setting up co-operative relationships with members in other countries
- Requesting / responding to requests from ISCO for support in dealing with major pollution events

### BEING A MEMBER IS A TWO-WAY THING –

As membership of ISCO continues to grow, the organization will have more funds available to enhance services for our members.

You can help –

- If every member helps by introducing just one new member, we will double our membership
- Raise ISCO’s international profile by recommending others to join the readership of the ISCO Newsletter
- Join the ISCO Group on LinkedIn – Click [HERE](#)
- Send in your contributions for publication in the ISCO Newsletter
- Come to ISCO meetings and let us hear your views

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