



ISCO NEWSLETTER

The Newsletter of the International Spill Response Community

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International news

ARCTIC NATIONS' OIL SPILL PLANS TOO VAGUE – ENVIRONMENTALISTS



February 4 - Plans by Arctic nations to start cooperating over oil spills are vague and fail to define corporate liability for any accidents in an icy region opening up to oil and gas exploration due to global warming, environmentalists said on Monday.

A 21-page document by the eight-nation Arctic Council, seen by Reuters and due to be approved in May, says countries in the region "shall maintain a national system for responding promptly and effectively to oil pollution incidents."

It does not say what that means in terms of staff, ships, clean-up equipment or corporate liability in a remote region that the U.S. Geological Survey estimates has 13 percent of the world's undiscovered oil and 30 percent of its undiscovered gas.

The countries have drafted the document as companies including Royal Dutch Shell, ConocoPhillips, Lukoil and Statoil are looking north for oil despite high costs and risks. The Arctic Council - comprising the United States, Russia, Canada, Sweden, Finland, Norway, Iceland and Denmark including Greenland sees cooperation as big progress for the region. *Reuters* [Read more](#)

Incident reports

USA: TUG SINKS IN TENNESSEE RIVER RESULTING IN FUEL SPILL



February 12 - 4,000 gallons of diesel fuel has been contained on the Tennessee River after a tugboat sank in one of its embankments. The vessel, owned by New Johnsonville Marine Service, was found partially sunk on Monday morning.

Officials said there were possibly 4,000 gallons of fuel on board, most of which leaked into the water. Divers were called in to seal the source of the leak, according to local news reports.

The spill was contained in a small area by booms. A drum skimmer was also brought in to suck the oil up out of the water. It was believed the fuel did not enter the main river course, but stayed in an area of about 300 yards by 300 yards. *The Maritime Executive* [Read more](#)

USA: CHEMICAL SPILL INTO MONTANA RIVER SPURS WATER WATCH

This photo provided by Hanser's Automotive shows pieces of two trailers that went into the Clarks Fork River near Belfry, Mont. on Monday, Feb. 11, 2013 spilling an estimated 7,000 gallons of magnesium chloride, a chemical used as road salt. Photo: Hanser's Automotive



February 12 - Montana authorities monitored downstream water supplies for contamination Tuesday after a truck crash spilled about 7,000 gallons of a chemical salt used to deice roads into a Yellowstone River tributary near the Wyoming border.

The estimated volume of magnesium chloride spilled was up 2,000 gallons from initial reports. The increase came as authorities gained a better grasp on the scope of the accident after crews pulled most of the wreckage from the Clarks Fork of the Yellowstone.

A semitrailer crashed into a bridge over the river Monday, sending two trailers into the river about 2 miles north of the Wyoming border. The river flows north, feeding into the Yellowstone about 45 miles from the spill site. *San Francisco Chronicle* [Read more](#)

USA: WINDSOR GAS WELL CAPPED AFTER SPEWING FRACKING FLUID

February 12 - A damaged natural gas and oil well north of Windsor that spewed greenish-brown "flow-back fluid" and steam for upward of 30 hours was capped Tuesday afternoon after an unknown amount of the substance escaped the damaged port.

At about 9:30 a.m. Monday the wellhead suffered a mechanical failure on the surface, located in a field between Weld County roads 72 and 74, just west of Colo. 257. There were no injuries and there was no fire during the malfunction that ultimately sent oil-tainted water shooting horizontally from the damaged port, said Bart Brookman, senior vice president of operations for PDC Energy, the company in charge of the well. *Windsor Now* [Read more](#)

Big fracking fluid spill near Windsor is cleaned up, company says.

February 15 - PDC Energy workers at the site of an 84,000-gallon spill of greenish, oil-laden fracking fluid on Thursday said they had pretty much cleaned up the mess. *Denver Post* [Read more](#)

Other news

AUSTRALIA'S FIRST SPILL CONTROL INDUSTRY ASSOCIATION LAUNCHED

February 12 - A group of Australian spill control companies have launched a national industry association to represent the industry's interests.

AusSpill Association (AA) was formally established in May 2012 to represent Australian spill control manufacturers, retailers,

Other news (continued)

resellers, wholesalers & importers as a single voice to government, the public and the environment protection industry.

Inaugural Chairman Trevor Prentice says all comers are invited to join and take part in the Association's lobbying of regulators for the industry's benefit.

AusSpill's foundation policies are to:

Promote AusSpill to regulators, government and industry as a product agnostic, nationwide spill control industry representative body i.e. the voice of the industry.

Support a nationwide product accreditation and compliance scheme, recognized by all environmental regulators and government bodies.

Implement Industry standard test methods in order to provide an impartial performance appraisal of absorbent materials and a method for identifying absorbent types (Hazchem/chemical, Oil & Fuel/hydrocarbons, General Purpose)

Create an Australian Standard for Spill Response Kits and include that standard in other Australian Standards for the storage and handling of all classes of chemicals.

Create and develop standards & test methods for other spill control products (such as bunding) as the industry requires. Collect Spill Control Industry data to assist governments and industry in the maintenance of international best practice spill control policy.

A Membership Expression-of-Interest form with more details is available from the AusSpill Secretary Kevin Herbert at secretary@ausspill.com.au while more information can be found on the Association website at www.ausspill.com.au.

Source: [Oil Spill Professionals Group on Linked-In](#)

USA: SHELL OIL'S ARCTIC DRILL RIGS KULLUK, NOBLE DISCOVERER HEADED TO ASIA FOR REPAIRS

February 13 - Shell broke its weeks-long silence on the status of its two Arctic drill rigs Feb. 11. The Kulluk and Noble Discoverer, two drill vessels used by Shell for its 2012, Arctic drilling, will be moved from Alaska to Asia for repairs, the company said in a statement late Monday.

The Kulluk, a conical drill vessel, was damaged in a grounding near Kodiak Island Dec. 31. Noble Drilling's drillship Noble Discoverer, under a long-time contract to Shell, is now in port in Seward due to an engine malfunction. *Homer News* [Read more](#)

USA: ENERGY INDUSTRY DEVELOPS NONTOXIC FRACKING FLUIDS

February 3 - Houston-based energy giant Halliburton Inc. has developed a product called CleanStim, which uses only food-industry ingredients. Other companies have developed nontoxic fluids as well.

"Halliburton is in the business to provide solutions to our customers," said production manager [Nicholas Gardiner](#). "Those solutions have to include ways to reduce the safety or environmental concerns that the public might have."

Environmental groups say they welcome the development but still have questions.

The chemicals in fracking fluids aren't the only environmental concern, said [George Jugovic](#), president of PennFuture. He said there is also concern about the large volumes of naturally occurring but exceptionally salty wastewater and air pollution.

San Francisco Chronicle [Read more](#)

USA: GULF COAST ECOSYSTEM RESTORATION COUNCIL ANNOUNCES PUBLIC ENGAGEMENT SESSIONS IN GULF STATES

February 6 - The Gulf Coast Ecosystem Restoration Council (the Council) today announced the dates for upcoming public engagement sessions to provide early opportunities for initial input into the Comprehensive Plan for Gulf Coast restoration. Public engagement sessions will be held in Mississippi on February 19, in Louisiana on February 19, 20 and 21, and in Florida on February 28. The Council will announce additional dates and locations via the Council's website as they become available.

The Council, which was established by the Resources and Ecosystem Sustainability, Tourism, Opportunities Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act), will help restore the ecosystem and economy of the Gulf Coast region by developing and overseeing implementation of a Comprehensive Plan and carrying out other responsibilities. [RestoreTheGulf.gov](#) [Read more](#)

CANADA: DOES DILUTED BITUMEN FLOAT? EXPERTS, ACTIVISTS AT PIPELINE HEARING CAN'T AGREE

February 6 - The diluted bitumen that will flow from the Alberta oil sands to a B.C. tanker port would not sink in the event of a marine oil spill, contrary to claims made by opponents, say experts behind the Northern Gateway pipeline project.

Other news (continued)

As such, the marine oil-spill response plan – which the company points out it has taken on voluntarily, above and beyond Canadian regulations – does not need and does not include measures to remove oil from the ocean floor, a regulatory review panel heard Wednesday.

ForestEthics, Raincoast Conservation Foundation, and the Living Oceans Society, along with the Haisla, Haida and Heiltsuk First Nations, have submitted to the panel that diluted bitumen does sink, making it extremely difficult – if not impossible – to clean up. *The Globe and Mail* [Read more](#)

USA: JUDGE APPROVES PLEA DEAL BETWEEN TRANSOCEAN AND FEDS ON CRIMINAL CHARGES STEMMING FROM GULF OIL SPILL

February 14 - Less than a month after BP's plea deal on criminal charges was approved, a federal judge on Thursday approved a similar, but far less expensive, **deal** between Transocean and the U.S. Justice Department based on the company's role in the Gulf oil spill.

Transocean will be required to pay \$400 million to settle the charges, the second highest criminal payment in U.S. history. Only BP's \$4 billion penalty, approved by U.S. District Judge Carl Barbier on Jan. 29, was larger. *The Times Picayune* [Read more](#)

Science and Technology

USA: OIL DISPERSANTS USED DURING GULF SPILL DEGRADE SLOWLY IN COLD WATER

February 13 - During the 2010 Deepwater Horizon oil spill in the Gulf of Mexico, clean up crews applied millions of liters of oil dispersants both at the ocean surface and in the deep sea. At the time, the public and some scientists worried about the environmental effects of the chemicals, in particular how long they would last in the deep sea. According to a new **Environmental Protection Agency** study, the key active ingredient in the dispersants degrades very rapidly under conditions similar to those found at the Gulf surface during the spill. Meanwhile, in the much colder temperatures found in the deep sea, **the breakdown is quite slow** (*Environ. Sci. Technol.*, DOI: [10.1021/es303881h](https://doi.org/10.1021/es303881h)).

EPA oil spill expert Albert D. Venosa, working with academic researchers, wanted to better understand the degradation of Corexit 9500, the main dispersant used during the spill. They ran tests on artificial seawater at 5 °C, about the temperature at the wellhead, and at 25 °C, roughly the temperature of the surface waters during the hot summer of the spill.

One key round of experiments involved adding an oil and dispersant mix to flasks of water that the scientists had inoculated with bacterial communities. For the cold water flasks, the team used bacteria isolated from the deep Gulf, and for the warm water, they used microbes from shallow water.

Using liquid chromatography tandem mass spectrometry, the team tracked levels of dioctyl sodium sulfosuccinate (DOSS), Corexit 9500's main surfactant. In the warm water, when mixed with oil, DOSS broke down quickly, with most of the compound gone in eight days.

In the cold water tests, however, the team didn't observe significant dispersant breakdown for almost a month, and some DOSS persisted at the end of the 42-day experiment. The reason, the authors say, is likely that at low temperatures the microbes slowly produce the enzymes needed to chew up DOSS. *Chemical and Engineering News* [Read more](#)

SHORTER FIBERS KEY TO SAFER CARBON NANOTUBES

[Editor: With the introduction of nanotechnology in the design of some new spill response products, I thought readers would be interested in this article which appeared in the February 5 issue of *Environmental Health News*]

Ali-Boucetta, H, A Nunes, R Sainz, MA Herrero, B Tian, M Prato, A Bianco and K Kostarelos, 2013. **Asbestos-like pathogenicity of long carbon nanotubes alleviated by chemical functionalization**, [Angewandte Chemie International Edition](https://doi.org/10.1002/anie.201207664) <http://dx.doi.org/10.1002/anie.201207664>. Synopsis by [Marty Mulvihill](#)

A chemical redesign of carbon nanotubes has reduced their harmful effects on lungs, an issue that has hindered their widespread use. The nanomaterial holds promise for medicine and electronics but also poses a health threat because the skeletal fibers resemble asbestos. The animal study found less lung irritation and no sign of cancer with shorter fibers.

A shorter carbon nanotube may be a safer one, according to a group of European researchers who varied the materials' structural fibers and tested their health effects in mice.

Carbon nanotubes are one of the most common and exciting examples of nanotechnology with potential uses in electronics and medicine, but they are made of fibers that resemble asbestos. The modified nanotubes with shorter fibers were less irritating to the mouse lung and showed no signs of cancer when compared to traditional carbon nanotubes.

Science and Technology (continued)

This work demonstrates the importance of researchers from different disciplines teaming up to solve problems. When applied to green chemistry, toxicologists and chemists working together can create safer materials to help avoid unintended health and environmental consequences of new chemicals.

Many scientists predict that carbon nanotubes will have many useful applications. The nanomaterials could boost performance of our electronic devices, deliver drugs directly to cells and even enable more affordable [space travel](#) through lighter materials.

At the same time, other scientists and health experts worry that carbon nanotubes could create health problems in people. In particular, the fibrous structure of these tubes closely resembles the potent carcinogen asbestos. In fact, lab and animal studies have shown that carbon nanotubes do irritate lung tissue in the same way and lead to lung cancer in exposed animals.

[Asbestos](#) has been used in building materials, auto parts and coatings as an insulator and fire retardant. Asbestos fibers are released when products containing asbestos age or are disturbed in remodeling or replacement. When breathed in, the fibers can irritate lung tissue, causing cancer and other lung disease.

Now, a group of scientists report that they can make carbon nanotubes – picture sheets of carbon rolled into a cylinder – that are much safer and have fewer asbestos-like health effects.

By chemically modifying the surface of the very small carbon nanotubes, the researchers created fibers that are 10 times shorter than typical nanotube fibers. They tested these new materials head-to-head in mice with both untreated nanotubes and asbestos fibers.

They found that the chemical treatment produces fibers that caused much less irritation in the mouse lungs and did not show signs of cancer development during the seven days after injecting the nanotubes into the lungs.

More work and further testing are needed to understand the long-term impact of the modified nanotubes, including more details about biological interactions with the new nanomaterials. *Environmental Health News* [Shorter fibers key to safer carbon nanotubes.](#) — *Environmental Health News*

ISCO News

ISCO MEMBERS – HAVE YOU PAID YOUR ANNUAL SUBSCRIPTION ?

Chasing up members who have overlooked paying their annual subscriptions makes a lot of extra work for our Membership Director, Mary Ann Dalgleish. If you are behind with your payments, please bring them up-to-date now.

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Membership fees are ISCO's only source of income and we need your support.

WORK ON REBUILDING THE ISCO WEBSITE

Work on the new website is progressing well. In the meantime, you can still visit the existing website at <http://www.spillcontrol.org>

As soon as the rebuilding work is complete, the existing site will be switched off and replaced by the new website.

MEMBERS OF THE ISCO INTERNATIONAL RESPONSE RESOURCE INVENTORY WORK GROUP

During the period of website rebuilding your Secretary is refraining from posting new updates on your page because this would complicate data transfer to the new site.

In the meantime, your Secretary can report that on your behalf he has participated in further conference calls with the core group on January 29, February 5 and 11, and a further call is scheduled for February 20. Discussions have been focused on the content and lay-out of information in the RRI. The core group has also been debating on how the system can work as a tool for sourcing available resources in a major event and in helping to ensure that requests for help and offers of assistance are framed in ways that promote clear understanding between parties. A more comprehensive report will be posted as soon as possible.



In this issue of the ISCO Newsletter we are printing No. 114 in a series of articles contributed by Dr Douglas Cormack.

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

CHAPTER 114: KNOWLEDGE OF THE SEA EMPRESS INCIDENT

Having related the dates of oil release at the *Sea Empress Incident* to wind and tide patterns to estimate the times spent at sea before standing on different lengths of shoreline in article 113, I now review the quantities thus released before and after the onset of the offshore north northeast wind on 19 February. Thus, if we refer to the releases which took place under offshore winds up to and including 18 February as those of category 1 and those from 19 - 21 February as category 2, we see that the respective total releases are 12,000 and 60,000 tonnes or 9,000 and 63,000 according to the differing official figures tabulated earlier, *i.e.* a volume ratio of 1:5 or 1:7 in favour of the stranding influence of onshore wind in this incident, the former ratio being taken for my subsequent analysis to avoid over emphasising this influence on the fate of its sequential releases.

Thus, in estimating the amounts likely to strand from these two quantified categories of release after their differing times at sea, we also have to allow for the differing amounts treated by differing amounts of dispersant and for the differing amounts recovered. However, having already computed the amount of oil removed by dispersants from category 1 releases in the period 15-18 February as 620 tonnes, and from category 2 releases in the period 19 - 21 February as 4,895 tonnes, we see that the amounts of emulsion remaining in these two categories were respectively 8,380 and 58,105 tonnes. However, in the absence of any breakdown of the respective amounts recovered from water surfaces, I have simply distributed the total 2,000 tonnes 50:50 between my two release categories to give the remaining amounts as respectively 7,380 and 57,105 tonnes which with reduction by 32% for evaporative loss become 5,012 and 38,832 tonnes of oil respectively. Thus, with these adjustments, we find that the amounts of emulsion subject to natural dispersion in these categories are 15,036 and 116,496 tonnes, while after allowing for 40% evaporative loss these are respectively 13,260 and 102,795 tonnes of emulsion. Thus, the results of applying my half-life treatment for half-lives of 30, 36 and 42 hours to my two release categories after 32% evaporative loss are tabulated below.

Category 1 (15-18 February Inclusive)								
Half-life: 30 hours			Half-life: 36 hours			Half-life: 42 hours		
Hours	Days	Tonnes	Hours	Days	Tonnes	Hours	Days	Tonnes
0	0	15,036	0	0	15,036	0	0	15,036
30	1.25	7,518	36	1.50	7,518	42	1.75	7,518
60	2.50	3,759	72	3.00	3,759	84	3.50	3,759
90	3.75	1,879	108	4.50	1,879	126	5.25	1,979
Category 2 (19 February onwards)								
0	0	116,496	0	0	116,496	0	0	115,248
30	1.25	58,248	36	1.50	58,248	42	1.75	57,624
60	2.50	29,124	72	3.00	29,124	84	3.50	28,812
90	3.75	14,562	108	4.50	14,562	126	5.25	14,562
120	5.00	7,286	144	6.00	7,203	168	7.00	7,203
150	6.25	3,643	180	7.50	3,601			
180	7.50	1,821						

Lack of available detail on the fuel oil releases which were officially estimated at 320 tonnes prevents their similar treatment, though my allocated half-life of 4 - 6 days (articles 31-46) and 50:50 split between the above categories suggests that around 270 tonnes of oil would have come ashore as 540 tonnes of a 50% oil emulsion.

The above table shows that the amount of emulsion likely to strand after being at sea for an average of 1.5 days within the three days of category 1 releases is 7,518 tonnes while that of category 2 after being at sea for 3 days of offshore winds and an additional average of 3 days over the subsequent 6 days of onshore winds is 7,286 tonnes which added together gives a stranded total of 14,804 tonnes of emulsion, while for 40% evaporative loss, the quantities of categories 1 and 2 subjected to natural dispersion as emulsions are 13,260 and 102,795 tonnes respectively which results in 6,630 and 6,425 respectively for a stranded total of 13,055 tonnes of emulsion. Thus, for 32 or 40% evaporative loss, we have 4,935 tonnes or 4,352 tonnes of stranded cargo oil, to each of which we can add about 270 tonnes of fuel oil.

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

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

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

RESPONSE TO INLAND OIL SPILLS – PART 9



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

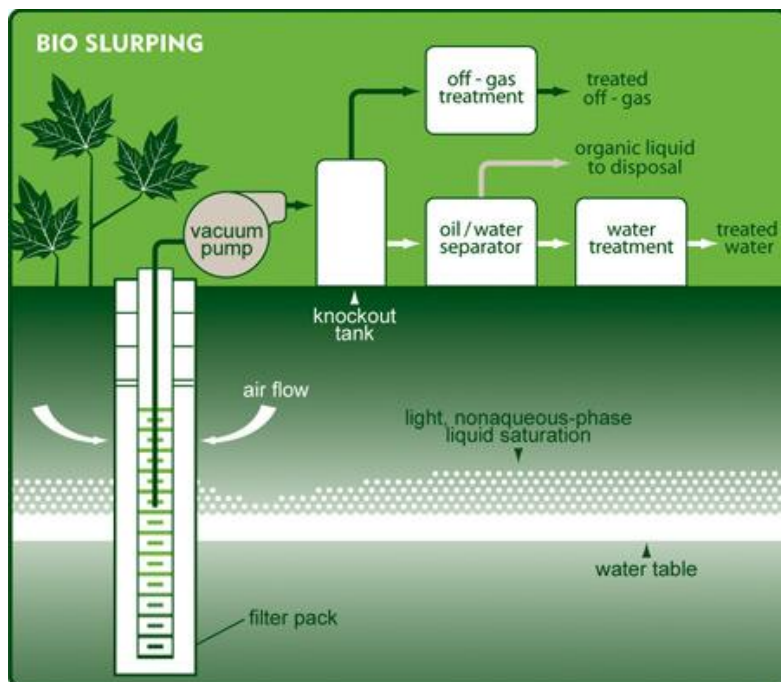
Mark Francis has been involved with the oil industry since 1975. He attended his first oil spill in 1976, the Tanker Elaine V incident. He became head of response for inland spills within the UK for British Petroleum E & P in 1980 for 10 years responding to well, storage tank and pipeline spills throughout the UK. Over the next 20 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. Mark’s website is at <http://www.oilspillsolutions.org>

Groundwater Treatment (continued)

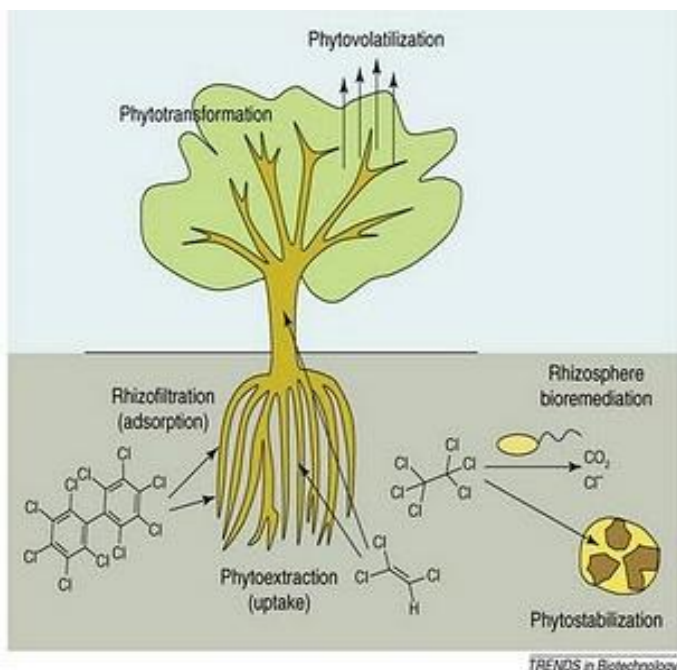
Bio-slurping (sucking)

Bioslurping combines elements of bioventing and vacuum-enhanced pumping of free-product that is lighter than water (light non-aqueous phase liquid or LNAPL) to recover free-product from the groundwater and soil, and to bioremediate soils. The bioslurper system uses a “slurp” tube that extends into the free-product layer. Much like a straw in a glass draws liquid, the pump draws liquid (including free-product) and soil gas up the tube in the same process stream. Pumping lifts LNAPLs, such as oil, off the top of the water table and from the capillary fringe (i.e., an area just above the saturated zone, where water is held in place by capillary forces). The LNAPL is brought to the surface, where it is separated from water and air. The biological processes in the term “bioslurping” refer to aerobic biological degradation of the hydrocarbons when air is introduced into the unsaturated zone.

(Diagram <http://www.threer.co.uk>)



Phytoremediation



In the phytoremediation process certain plants and trees are planted, whose roots absorb contaminants from ground water over time, and are harvested and destroyed. This process can be carried out in areas where the roots can tap the ground water. An example of plants that are used in this process is the Chinese Ladder fern *Pteris vittata*, also known as the brake fern, which is a highly efficient accumulator of arsenic. Genetically altered cottonwood trees are good absorbers of mercury and transgenic Indian mustard plants soak up selenium well.

(Diagram <http://ebt-gmo.blogspot.com>)

Permeable Reactive Barriers

Certain types of permeable reactive barriers utilize biological organisms in order to remediate groundwater.

To be continued

IN SITU BURNING: CHAPTER 6



A short series of articles on In Situ Burning contributed by Dr Merv Fingas of Spill Science, Edmonton, Alberta, Canada T6W 1J6 fingasmerv@shaw.ca

Merv Fingas MSc PhD worked for more than 35 years in the field of oil spill technology at Environment Canada's Environmental Technology Center in Ottawa, Ontario. As head of the Emergencies Science Division at the Centre, he conducted and managed research and development projects. He is currently working independently in Alberta. Dr Fingas is the Member of ISCO Council for Canada.

Summary of the Serial

This is the sixth of a series of articles on in-situ burning of oil spills. This series will cover in-situ burning step-by-step and will present the latest in knowledge on the topic.

6. The History of Burning (*continued*)

In the last episode we review a few of the many tests conducted on in-situ-burning. Early tests focussed on burnability in several conditions. Tests in the late 90's focussed on testing booms and measuring emissions. Such tests are shown in Figures 4 and 5.

More tests were conducted in 1996 and 1997 by S.L. Ross Environmental Research Ltd., sponsored by the U.S. Minerals Management Service and the Canadian Coast Guard.¹ These tests evaluated firebooms using propane rather than the smoke-producing fuels such as diesel or crude oil. The propane test evaluations were conducted in a wave tank located at the Canadian Hydraulic Centre, National Research Council of Canada in Ottawa. The heat flux measured in the 1997 tests with air-enhanced propane was comparable to those measured in the diesel fuel fires.

Two separate fireboom test evaluations using air-enhanced propane were conducted in Fall 1998 by MAR, Inc. and S.L. Ross Environmental Research Ltd.^{1,29} Both tests were conducted at the OHMSETT facility in Leonardo, New Jersey. The first test was sponsored by the U.S. Minerals Management Service and the U.S. Navy Supervisor of Salvage (SUPSALV). Three candidate fire protection systems were tested and evaluated. Each consisted of a water-cooled blanket designed to be draped over existing oil boom to protect its exposure to an in-situ oil fire. In the second fireboom evaluation, a prototype stainless steel PocketBoom was tested and evaluated using the air-enhanced propane system. The Pocket Boom was a redesign of the Dome boom originally developed for use in Arctic seas. Liquid propane from a storage tank was heated to create gaseous propane and piped to an underwater bubbling system. The test protocol was similar to the ASTM draft method noted above. The booms generally survived the tests and showed less degradation than previous models of the same booms.



Figure 4 A test of fire boom in the early 1990's. All the instruments in the foreground are to measure or capture emissions.



Figure 5 A test of fire boom at the USCG Mobile facility using the ASTM protocol. The emissions from this test would be been measured in a similar manner to that shown in Figure 4.

References

- 1 Fingas, M., "In-situ Burning", Chapter 23, in *Oil Spill Science and Technology*, M. Fingas, Editor, Gulf Publishing Company, NY, NY, pp. 737-903, 2011
- 29 McCourt, J., I. Buist, W. Schmidt, D. Devitis, B. Urban, and J. Mullin, *OHMSETT's Propane-Fuelled Test System*, AMOP, 505, 1999

To be continued

Publications

FOR YOUR INTEREST – LINKS FOR RECENT ISSUES OF PERIODICALS

The Essential HazMat News	Alliance of Hazardous Materials Professionals	February 4 issue
CEDRE Newsletter	News round-up from CEDRE in Brest, France	Issue 209, 2013
Bow Wave	News for the maritime community & to make you smile	February 5 issue
Intertanko Weekly News	International news for the oil tanker community	No 6, 2013
Tech. Innovation News Survey	US EPA: Entries for December 16-31, 2012	Issued Feb. 14, 2013
Soil & Groundwater Newsletter	Compiled by Environmental Expert	February 14 issue
EMSA Newsletter	News from the European Maritime Safety Agency	February 2013 issue

IOPC FUNDS: INCIDENTS INVOLVING IOPC FUNDS

The publication 'Incidents involving the IOPC Funds – 2012' is now available to download at <http://www.iopcfunds.org/publications/>. Hard copies of the publication are available on request. They will, in any event, be posted to those on the IOPC Funds mailing list as usual within the next two weeks.

USA: CSB RELEASES TECHNICAL REPORT ON CHEVRON 2012 PIPE RUPTURE AND FIRE

February 13 - The U.S. Chemical Safety and Hazard Investigation Board (CSB) and the California Division of Occupational Safety and Health (Cal/OSHA) today released a technical evaluation report on piping samples taken from the Chevron Refinery in Richmond, California, where a hydrocarbon release and massive fire occurred on August 6, 2012. Cal/OSHA participated in this technical evaluation as part of its enforcement investigation.

The report, prepared by Anamet, Inc., a metallurgical laboratory in Hayward, California, concludes that the 8-inch steel pipe, from a section designated as 4-sidecut which was installed in 1976, ruptured due to severe sulfidation corrosion, and that tested pipe samples showed a very low concentration of corrosion-inhibiting silicon. *USA Chemical Safety Board* [Read more](#)

USA: COST-EFFECTIVE LEAK INSPECTION FOR UNDERGROUND TANKS

Rhode Island has found a more cost-effective way to prevent underground petroleum storage tanks threatening water supplies, according to a study conducted by the state's Department of Environmental Management.

The study, "[Reducing Drinking Water Supply Chemical Contamination: Risks from Underground Storage Tanks](#)," was funded by the EPA's National Center for State Innovation through a three-year grant.

As of September 2008, more than 470,000 UST releases had been recorded in the United States. The EPA reported 7,300 new leaks in 2008 and nearly 103,000 old leaks remained to be cleaned up.

The EPA-funded study evaluated a new regulatory model that aims to decrease agencies' frequency of inspections among low-risk facilities, without sacrificing compliance performance or increasing public health risks. The study applied a model comprised of four components: regulatory assistance, compliance certification using standardized checklists, independent agency inspections and statistically-based performance measurement. The model was adapted from an Environmental Results Program (ERP) effort developed in Massachusetts. *Environmental Leader* [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

Events

UK: UGOS – UNCONVENTIONAL GAS & OIL SUMMIT – LONDON, 3-6 JUNE, 2013

Featuring over 25 oil and Gas operators who will be sharing their experiences on technological, commercial and regulatory challenges on unconventional petroleum. It is the only conference to address a full range of unconventional petroleum including; Shale Gas, Shale Oil, Coal Bed Methane, Tar Sand and Extra Heavy Oil.

The programme includes a whole day dedicated to the challenges associated to water management and how to mitigate the associated challenges. [More info](#)

INDONESIA: 3rd OFFSHORE OIL & GAS CONFERENCE

Jakarta, 26 February – 1 March 2013 [More info](#)

Events (continued)

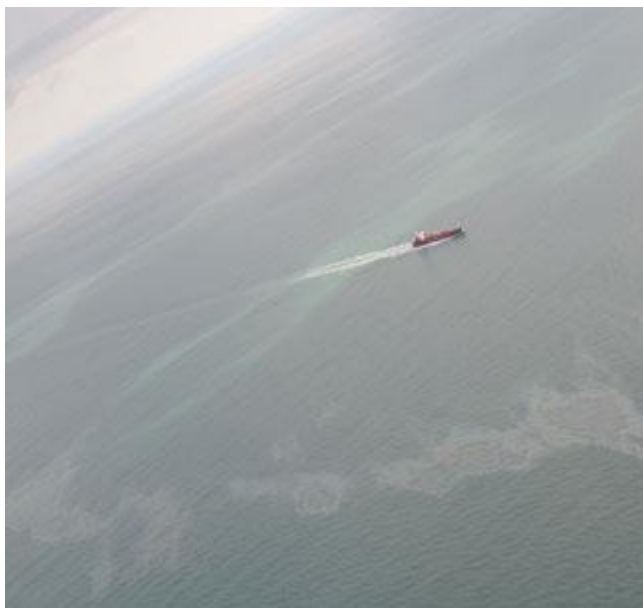
USA: SPRING 2013 APICOM MEETING

Fort Lauderdale, Florida, 1-4 May 2013 [More info](#)

GABON: 5th AFRICAN OIL AND GAS CONGRESS & EXHIBITION

26 – 28 March 2013, Libreville , Republic of Gabon. The programme includes a session on Environmental Protection and Sustainable Development in the Oil & Gas Industry [More info](#)

FRANCE: CEDRE INFORMATION DAY – SPILL MODELLING



Aerial view of oil pollution drifting at sea

27 March 2013, Direction de l'Eau et de la Biodiversité, Paris la Défense.

In terms of spill preparedness and response, the use of models continues to be much appreciated both by decision-makers in charge of the response strategy and operators tasked with the practical deployment of response equipment. Their graphical outputs appear to be increasingly used for communication purposes. Whether for behaviour in the atmosphere, at the water surface or in the water column, many models exist, whose precision depends both on the sophistication of the model's algorithms and the accuracy of factual input data.

To address the wide variety of models that exist for oil and chemicals, in marine and inland waters, we have called upon the top French and foreign specialists, whether they be model developers, manufacturers or users, to present the tools they design, develop and use, often with great passion. To illustrate international experience, the Management Unit of the North Sea Mathematical Models (MUMM), a devoted partner of the Cedre Information Day, will present the North-West European Shelf Operational Oceanographic System (NOOS). *CEDRE* [More info](#)

Training

THE NETHERLANDS: OIL & CHEMICAL SPILL TRAINING COURSE

Maritime Institute Willem Barentsz, 8-12 April, 2013.

The course includes various topics in the field of oil and chemical spill response at sea. • Case histories oil and chemical spills • Transport by sea/ type of incidents • Types and properties (oil & chemicals) • Behaviour of oil and chemical spills • Hazards to the marine environment • Use of predictive models (OilSheet and Chemsheet) • Oil and Chemical Spill Response options and techniques International rules and regulations • Spill response management roles and responsibilities [More info](#)

Products and services

USA: ENERGY PRODUCTION PROCESS FOR HARVESTING ALGAE AND CLEANING UP OIL AND GAS WATER.

Riggs Eckelberry, president and CEO of OriginOil, discusses his company's energy production process for harvesting algae and cleaning up oil and gas water. He explains OriginOil's plans to demonstrate the technology in Texas' Eagle Ford Shale and discusses his expectations for algal fuel legislation during the 113th Congress. [Watch the video report](#)

Correction of error

Simon Evans of Lubetech has written to highlight an error in last week's issue of the Newsletter. In "Incident Reports" it was mistakenly reported that the Pathfinder tugboat had hit Bligh Reef on December 23, 2012. This was reported as a recent event on the source website but actually this occurred on December 23rd 2009 and is an erroneous report from the source website. [Editor: Thanks, Simon, for alerting me to this mistake].

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.