ISCO NEWSLETTER

The Newsletter of the International Spill Response Community

Issue 405, 7 October 2013

info@spillcontrol.org http://www.spillcontrol.org

QUICK FINDER

Click on these links

CONSULTANTS

EQUIPMENT & MATERIALS

RESPONSE ORGANISATIONS

TRAINING PROVIDERS

Clicking on a company name or banner advertisement will display the advertiser's website.

GET THE ISCO NEWSLETTER

Contact john.mcmurtrie@spillcontrol.org

BECOME A MEMBER OF ISCO

ISCO aims to raise worldwide preparedness and co-operation in response to oil and chemical spills, to promote technical development and professional competency, and to provide a focus for making the knowledge and experience of spill control professionals available to IMO, UNEP, EC and other organisations.

There are many benefits for you in becoming a member and joining ISCO.

Application Form

PROFESSIONAL MEMBERSHIP

Advance your career by gaining Professional Recognition

Professional recognition is a visible mark of quality, competence and commitment, and can give you a significant advantage in today's competitive environment.

All who have the relevant qualifications and the required level of experience can apply for Professional Membership of ISCO. The organization offers independent validation and integrity. Each grade of membership reflects an individual's professional training, experience and qualifications.

You can apply for Student Membership, Associate Membership (AMISCO), Membership (MISCO) or Fellowship (FISCO).

All about Professional Membership

Application Form

For more info on these events, click on the banners

International news

MAKING INFORMED CHOICES ON THE USE OF DISPERSANTS TO TREAT OIL SPILLS

DUET offers a valuable source of advice for dispersant use

Following the recent upgrade to the Dispersant Usage Evaluation Tool (DUET), 17 participants from across the EU attended a training session on 17-18 September.

DUET is the result of a tender launched by EMSA in 2008 and contains a software programme that provides a numeric model to simulate oil spills and dispersant applications.

The model estimates the trajectory and fate of the oil, including water concentrations of naturally - and chemically - dispersed oil and dissolved hydrocarbons, as well as the surface area impacted by floating oil. These measures may be compared for scenarios with and without dispersant use, in such a way that informed guidance may be provided to decision-makers.

DUET, if not an emergency response tool itself, is intended for contingency planning in member states. Several countries have included it in their contingency plan and EMSA has used it on several occasions during exercises. *EMSA Newsletter (October 2013 Issue)* Read more

International news (continued)

USCG PUBLISHES FINAL RULE FOR NONTANK VESSEL RESPONSE PLANS

The U.S. Coast Guard announced Monday publication of the final rule to increase pollution response preparedness for nontank vessels carrying oil in U.S. waters.

The final rule establishes the content of oil discharge response plans so nontank vessel owners and operators understand how to comply with the preparation and submission requirements of the Coast Guard and Maritime Transportation Acts of 2004 and 2006. The CGMTAs amend the Federal Water Pollution Control Act, requiring owners and operators of nontank vessels to prepare and submit oil spill response plans.

The final rule also updates the International Shipboard Oil Pollution Emergency Plan requirements that apply to all nontank vessels and certain tank vessels. The final rule requires vessel owners and operators to submit their vessel response plan control numbers as part of the notice of arrival information.

The Federal Water Pollution Control Act defines a nontank vessel as a self-propelled vessel of 400 gross tons or greater that operates on U.S. navigable waters while carrying oil of any kind as fuel for main propulsion and is not a tank vessel. *The Maritime Executive* Read more Download the text of the final rule

Incident reports

USA: CREWS CLEANING UP GASOLINE AND BEEF TALLOW FROM FORE RIVER, QUINCY

September 24 - Two different spills in the Fore River have kept crews busy since Sunday, as containment and cleanup work continues.

“It’s very unusual,” said Quincy Police Lieutenant Bob Gillian. “…There is a slew of safety procedures to prevent this from happening that has reduced these types of occurrences. It’s not usual at all.”

Quincy Police said crews have been on site since Sunday morning, when they received a report of oil sheen on the river.

According to police, crews traced the source to an RDA Construction barge, which had been leaking several gallons of diesel fuel. Clean Harbors, Norwell-based environmental cleanup company, was hired to help contain the spill and begin the cleanup. *Boston.com* Read more

---

UK: DUCK OIL SPILL RESCUE CONTINUES IN GLYNDYFRDWY

October 1 - A rescue operation to save up to 500 ducks caught up in an oil spill on a lake is continuing in Denbighshire, says the RSPCA.

Nearly 200 have been rounded up so far following the incident in Glyndyfrdwy, between Corwen and Llangollen.

Most of the birds are heavily coated in engine oil and are being taken to the RSPCA’s wildlife centre in Taunton, Somerset, for treatment. *BBC News* Read more and watch video

---

USA: HISTORIC TUGBOAT SINKS, SPILLS FUEL

October 3 - The nearly century-old *Chickamauga* sunk, spilling fuel into the waters of Eagle Harbor, Washington.

Thought to be the first diesel-powered tugboat on the West Coast, the 70-foot wooden tug spilled about 200 gallons of red-dyed diesel fuel and engine oil into surrounding waters. Fortunately, no one was injured.

Local firefighters received a call Wednesday morning and quickly deployed booms and containment equipment. Although divers plugged the leak, gallons of fuel polluted the waters. According to Washington’s Department of Ecology, any amount of oil spilled is harmful to the environment. *The Maritime Executive* Read more

---

NEW ZEALAND: DIESEL SPILL CLEAN-UP BEGINS

October 5 - Work to flush a stream contaminated by a large diesel spill at Tongariro National Park has begun.

Incident reports (continued)

Since Wednesday, 15,000 litres of diesel have leaked from a tank at the Turoa Ski Field into the Makotuku stream - the primary tributary for Raetihi's water supply, which has been shut off for at least 10 days.

The Ruapehu District Council today said it had started a controlled flush of the stream's upper catchment, which would release any diesel trapped in the soil, or in pools and eddies along the stream. *The New Zealand Herald* Read more

Other news

NIGERIA: DEFIANT SHELL UNWILLING TO QUIT CRIME-HIT NIGER DELTA

Shell is willing publicly to reveal this devastation because it wants to pressure Nigeria and the international community into doing more to stop it. Janzen says theft has increased significantly since last year because "people saw they were able to get away with it". Photo: Emily Gosden

September 29 - The tanker sailed into the Niger Delta, right under the eyes of Nigeria's armed forces. Crewed by men working for an international criminal gang, it headed inland, hooked up to "bunkering" points illegally installed on Shell's Trans-Niger pipeline, and began to steal oil.

"Something went dramatically wrong," says Jurgen Janzen, Shell's pipeline asset manager. A year ago on Monday, in the early hours of the morning, Shell discovered both the tanker and the pipeline ablaze, a raging inferno billowing black smoke hundreds of feet above the Delta.

"We know that a number of the people got killed," says Janzen. "We had to go in and extinguish the fire." Ultimately, the tanker sank - another addition to the dismal list of human suffering and environmental devastation that is the by-product of the oil industry in Nigeria. Theft on such an audacious scale is not rare; Shell chief Peter Voser says the problem is "endemic". *The Telegraph* Read the complete article

---

USA: BP TRIAL UPDATES

September 30 - BP Faces $18 Billion in Fines During Second Phase of Deepwater Horizon Trial

BP is battling to hold down fines that could hit $18 billion in a new phase of the Gulf of Mexico trial that will rule on how much oil it spilled in 2010 and judge its efforts to plug its well.

Beginning today in New Orleans, this second of three phases of a trial determining responsibilities for the worst marine pollution ever seen in the United States, could - in the worst outcome for the British firm - land BP with a bill five times greater than the $3.5 billion it has set aside for fines. *The Maritime Executive* Read more

September 30 - Second phase of BP trial over the 2010 Gulf oil spill focuses on flow rates, 'top kills' and 'junk shots'

The second phase of the BP Deepwater Horizon accident and oil spill trial resumed in New Orleans on Monday (Sept. 30), with attorneys for private plaintiffs teaming up with BP contractors Transocean and Halliburton to accuse the international oil giant of failing in its disaster preparations and its attempts to stop the flow of oil, and BP attorneys arguing that the company spent billions of dollars to staunch the flow amid uncertain conditions. *The Times Picayune* Read more

October 2 - BP executive defends spill response tactics

A BP executive who led the company's efforts to halt its massive 2010 oil spill in the Gulf of Mexico testified Tuesday that his decisions were guided by the principle that they shouldn't do anything that could make the crisis even worse.

James Dupree, BP's first witness for the second phase of a trial over the deadly disaster, said his teams worked simultaneously on several strategies for killing the well that blew out in April 2010. Dupree said the company decided in mid-May that it wasn't ready to employ the capping strategy. He also said he was concerned that it could jeopardize other efforts to seal the well. *San Francisco Chronicle* Read more

October 3 - BP wins reprieve over Gulf spill payouts

BP PLC won a legal reprieve in its effort to force the administrator of a settlement related to the 2010 Gulf of Mexico oil spill to tighten standards in assessing claims, potentially sparing the oil company billions of dollars of extra costs.

Other news (continued)

A divided 5th U.S. Circuit Court of Appeals in New Orleans on Wednesday directed U.S. District Judge Carl Barbier, who in March had approved administrator Patrick Juneau's evaluation methods, to take a fresh look at which claims are legitimate.

The 5th Circuit also directed Barbier to halt payments on those claims that don't meet stricter standards. *The Globe and Mail* Read more

CANADA : CHRISTY CLARK WARNS CANADA UNPREPARED FOR TANKER OIL SPILLS

October 2 - If a tanker were to spill oil off the coast of British Columbia today, the federal government would not have the resources to handle a large-scale disaster, warns B.C. Premier Christy Clark.

In an interview with CBC chief correspondent Peter Mansbridge, Clark sounded the alarm over Canada's inability to handle a major coastal oil spill now, let alone in the future should new pipelines be approved.

"We are woefully under-resourced," Clark said. Her comments come amid a recent video ad campaign by Coastal First Nations in B.C. directed at Prime Minister Stephen Harper.

The video shows devastating images from the Exxon Valdez oil spill off the coast of Alaska in 1989. The song The Sound of Silence by Simon & Garfunkel accompanies the dramatic pictures. *CBC News* Read more and watch interview video [Thanks to Gerald Graham of World Ocean Consulting] Listen to CBC Radio Interview Podcast Gerald Graham commenting on spill preparedness.

UK: FORTH ESTUARY - MAJOR OIL EMERGENCY TRAINING EXERCISE

October 1 - Forth to host major oil emergency training exercise

A large multi-agency presence will be established on the water and coastline at Craigdimas Rock at Aberdour as part of Clearwater Forth, an emergency pollution control plan.

Those involved in the exercise, led by Forth Ports, include Sepa, Marine Scotland, Fife Council, police and fire services, as well as oil giant Shell. The purpose of the exercise is to give staff in every agency practice in what to do should a real oil spill ever occur in the Forth, which is navigated daily by large tankers en route to the oil terminal at Hound Point, near the Forth Bridge. *The Courier* Read more

October 3 - Emergency Oil Spill Response Exercise - Clearwater Forth 2013 (Report received from ISCO Executive Committee Member, Captain Bill Boyle, MNI, MISCO)

Briggs Environmental Services took part in Exercise Black Anchor, a planned emergency response oil spill simulation, in the Firth of Forth on Tuesday 2nd October at Craigdimas Rock, Aberdour.

The one day exercise, known as *Clearwater Forth*, involved organisations including; Fife and Edinburgh Councils, the Maritime and Coastguard Agency (MCA), Forth Ports, SEPA, SNH, Marine Scotland, Scottish Fire & Rescue, Police Scotland, Shell and a number of local environmental agencies.

Clearwater Forth is an established emergency response plan designed to handle incidents on the Firth of Forth, which is navigated daily by large tankers en route to the oil terminal's on the Forth. The plan is the responsibility of Forth Ports and although testing is only required every three years, Forth Ports run the exercise annually as they view safety as a priority.

This year Briggs Environmental Services provided technical expertise in marine and shoreline response to Fife Council as part of the routine exercise. Captain Bill Boyle MNI, FISCO, General Manager of Briggs Environmental Services, said:

"These annual exercises help us gain experience and permit us to be better equipped to respond speedily and effectively should a real oil spill occur in the Forth. The opportunity to work with highly skilled teams from participating organisations is invaluable and it allows us to demonstrate our capabilities in providing oil spill response services, which we have been skilled in for over 25 years."

CANADA: TRAINING EXERCISE SIMULATES PIPELINE SPILL INTO GRAND RIVER

A helicopter flies above the Grand River at Brant Park in Brantford, Ontario on Wednesday, September 25, 2013. Enbridge is conducting a two-day exercise, simulating a 4, 400 barrel crude oil spill from a pipeline, aiming at preventing the spill from reaching the intake valves of Brantford's water treatment plant near Wilkes Dam, and the ensuing clean-up. BRIAN THOMPSON/BRANTFORD EXPOSITOR/QMI Agency

September 25 - More than 200 specialists and staff from Enbridge Pipelines Inc., along with personnel from provincial ministries and municipal agencies, swarmed sites along the Grand River on Wednesday.

Their task in a simulation exercise was to stop the spread of a hypothetical oil spill the night before from one of the company's pipelines into the Grand, and keep it from reaching the intake valves to the city's Holmedale water treatment plant at Wilkes Dam.

Then they were to clean the "mess" from the river, its banks and tributaries all the way back to the spill point in North Dumfries, just above the Brant County border.

On Thursday, city and county officials and their associated agencies take over the simulation scenario set up by Enbridge, and act out their responsibilities if such an incident were to occur.

Company officials and others involved in the exercise were stationed at three strategic locations along the Grand, in what was meant to be a representative simulation of what would be dozens of sites if there were a real spill. *Brantford Expositor*
Read more

USA: WAITING FOR THE NEXT OIL SPILL DISASTER

October 2 - Environmentalists say that six years after the Cosco Busan struck the Bay Bridge and dumped 53,000 gallons of oil into the bay, the state has failed to learn from its mistakes.

By sunset, the tanker had delivered its cargo of crude petroleum to a North Bay refinery and was passing underneath the Golden Gate Bridge en route to its next port of call in Ecuador. Then, just past the bridge, as the ship made its way through the bay's neck, the engine froze and the electrical system failed. Without power or steering, the tanker drifted toward the rocky cliffs of the Marin Headlands. The captain knew the water in the straight was too deep to drop anchor, so he ordered his crew to lower the starboard anchor only partially, hoping it would catch in the shallows near shore and stop the ship from running aground and spilling the contents of its fuel tanks.

Onlookers on the bridge braced for disaster as the ship came within meters of Point Diablo. "The whole tanker spun around and almost nosed into the point," one witness told ABC7 News. But the captain's swift action worked, and just ten minutes after the power cut out the ship stopped. *East Bay Express* Read the complete text of this article

JAPAN: FUKUSHIMA WATER CRISIS: JAPAN SHOULD REQUEST INTERNATIONAL COLLABORATION, IAEA CHIEF SAYS

In the picture: Yukiya Amano, the IAEA director-general (Takashi Kida)

October 1 - Japan should stop working alone and seek international collaboration in dealing with the problem of radiation-contaminated water at the Fukushima No. 1 nuclear plant, Yukiya Amano, director-general of the International Atomic Energy Agency, said.

In an interview with The Asahi Shimbun, Amano said his agency was prepared to include an expert on marine pollution in the review team that is scheduled to be sent to Japan in autumn. He also said other experts around the world can help alleviate the crisis at the Fukushima site; they're just waiting for a request from Japan.

A former Foreign Ministry official, Amano, 66, was reappointed to his post at the September IAEA general conference. *The Asahi Shimbun* Read the complete transcript of the interview

Other news (continued)

GOLF BALLS FALL SHORT COPING WITH 21ST CENTURY DISASTERS

An interesting article in the September 29 issue of Bloomberg

Diaper liner, sawdust, golf balls and shredded tires -- these are some of the items used to try and contain the oil and nuclear disasters that marked the end of this century's first decade and the start of the second.

Sawdust and absorbent polymer were employed to plug radioactive water leaks at Japan's Fukushima atomic station after it was wrecked by an earthquake and tsunami in 2011. Didn't work. BP Plc (BP/) tried golf balls and rubber scrap in 2010 to plug its Macondo well in the Gulf of Mexico in what became the biggest oil spill in U.S. history. Didn't work, either.

Chucking diapers and golf balls at multibillion dollar calamities shows methods to deal with failure are primitive at best even as the global hunt for energy enters new frontiers of risk. Disasters beyond the coping abilities of a single company -- or even a country -- have prompted suggestions that a global body with military-scale technical resources is needed.

"We need an international agency that specializes in stuff like this," Andrew DeWit, a professor of political economy at Tokyo's Rikkyo University, said in an interview. "World armies and navies could form the basis for such a task force, being the only organizations with the infrastructure and manpower to cope."

Rising demand for energy is pushing oil drillers into remote and deeper waters from the Arctic and Africa to offshore Brazil. While nuclear power is falling out of favor in the U.S. and Europe, earthquake-prone China is building 29 reactors, the most of any country, to add to the 17 it already operates, according to the World Nuclear Association. Read the complete text of this article

---

HELCOM LAUNCHES NEW WEB SITE

October 1 - At the eve of the 2013 HELCOM Ministerial Meeting, new website has been launched at the same familiar url, http://www.helcom.fi. The HELCOM Meeting portal will, for the time being, continue as before in the address http://meeting.helcom.fi. The website contents will expand over the next weeks to cover all HELCOM working areas and beyond. The new section 'Action areas' provides a new window to HELCOM.

No news reports from your part of the world? You can help correct this by sending interesting stories in English language to the editor at info@spillcontrol.org Contributions will be acknowledged.

People in the news

HANNE SORENSEN BECOMES NEW CHAIRMAN OF ITOPF

Ms Hanne Sørensen took up office as the Chairman of ITOPF following the Federation's Board Meeting in St Petersburg on 26th September.

Ms Sørensen succeeds Mr Bjorn Moller who has been the Federation's Chairman since December 2006. During the dinner the evening before, Mr Sergey Frank, CEO of Sovcomflot and host of the event, paid tribute to Mr Moller's careful stewardship of ITOPF during his tenure.

Hanne SorensenIn her statement to the ITOPF Board of Directors, Ms Sørensen stated that -

"'ITOPF is well respected as the global leader in response to ship source spills of oil and chemicals. As a Director I have been enormously impressed by the importance of its work and by the expertise of its staff. It is a great honour to be appointed its next Chairman. I look forward to working with the Directors and staff at ITOPF to continue the excellent work that the team of highly qualified individuals perform on behalf of the shipping industry worldwide.'"

Ms Sørensen has extensive experience of shipping, having held various financial and commercial positions within the A.P.Moller – Maersk Group since 1994 in Europe, Asia and the Far East.

As CEO of Maersk Tankers she has overall responsibility for around 4,000 seafarers and 450 people ashore and management of a fleet of more than 200 vessels. Ms Sørensen holds a Master of Science in Business Economy from the University of Aahus, Denmark (1993) and currently resides in Denmark.

Obituary

DUNCAN LYON, Hon.FISCO

Your editor is saddened to hear that Duncan Lyon has died. Duncan was a loyal supporter of ISCO and a good friend to many in our community over many years. A full obituary will be published in next week's ISCO Newsletter.

Science and technology

CAN BACTERIA COMBAT OIL SPILL DISASTERS? SCIENTISTS EXAMINE THE ALTERNATIVES TO TOXIC DISPERSANTS

First part of a report from the Helmholtz Centre for Environmental Research (UFZ) in Leipzig

Teams of international scientists have decrypted the effectiveness of two types of bacteria, which could be used in the future to help combat oil spill disasters. According to a report written by scientists from the Helmholtz Centre for Environmental Research and the Helmholtz Centre for Infection Research in the peer-reviewed journal Applied and Environmental Microbiology, Alcanivorax borkumensis converts hydrocarbons into fatty acids which then form along the cell membrane. New insights on the bacteria Oleispira antarctica are important to understand their adaptation to low temperatures and could help in mitigation strategies for oil spills in polar seas or the deep sea, according to comments made by an international team in the peer-reviewed journal Nature Communications

Fire boats battle blazing remnants of the Deepwater Horizon rig the day after it exploded on April 2010. Photo: U.S. Coast Guard

Until now, chemicals have often been used to clean up oil disasters, to break up the oil/water emulsion, making oil more soluble and thus removing it from the surface water. According to data from the US Environmental Protection Agency (EPA) around seven million litres of such chemicals were used to combat oil pollution in the Gulf of Mexico, resulting from a spill of about 700,000 tons of crude oil into the sea from the offshore oil drilling platform "Deepwater Horizon" in 2010. Some of the most well-known of these were dispersants with the brand name Corexit — developed following the notorious tanker accident of the Exxon Valdez in Alaska in 1989. These substances have been heavily criticised however because of their side effects on humans and the environment. In the context of the EU-project BACSIN, scientists from different countries have therefore been investigating alternatives. "One approach for example could be to stimulate oil-degrading bacteria in their growth or for example by making them easier to use by freeze-drying so that they can be sprayed more easily than powders over the oil slick", explains Dr. Hermann J. Heipieper from the UFZ. "However, there are still lots of details that require fine-tuning before the day arrives when they can be used to combat damage from oil spills. The precautionary principle should therefore be given priority. No matter how concerted efforts are, nature will never completely return to its original state, not to mention the fact that the mitigation of environmental damage from oil spills is much more costly than its prevention."

Oil-degrading bacteria are not a human invention. In fact, they have been around for millions of years. The only thing that is new is the quantity of oil being spilt in the sea from oil disasters. Therefore, science has been looking into novel ways to accelerate natural degradation processes. One focus has been on hydrocarbon-degrading bacteria - so-called marine obligate hydrocarbonoclastic bacteria. These specialists at degrading hydrocarbons in marine ecosystems are able to degrade aliphatic hydrocarbons and use them as a source of energy. These bacteria are common in sea water all over the world, even if only in small quantities. If they come into contact with crude oil, then their population increases exponentially. A kind of bloom is formed, similar to those that we are familiar with from marine algae blooms. And yet, in spite of their important ecological meaning, still relatively little is known about the processes taking place in the cells of these bacteria. Headed by Dr. Hermann J. Heipieper, researchers from the UFZ have therefore been conducting detailed physiological and genomic analyses of the two reference strains of this group of bacteria (Alcanivorax borkumensis and Oleispira antarctica) that is tremendously versatile. This can be seen in particular by changes to the cell surface, by the way in which biologically oxidized aliphatic hydrocarbons are built into the cell membranes and by the regulation of genes to adapt to environmental stress.

The concluding part of this report and references will be published in the next issue of the ISCO Newsletter'

Cormack's Column

In this issue of the ISCO Newsletter we are printing No. 147 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 147: CAMPAIGN FOR KNOWLEDGE-ONLY ENVIRONMENTAL POLICY

Articles 145 & 146 showed that my newly defined reality-evaluation differentiates knowledge from belief in general, and science from pseudoscience in particular; that believing oil releases from ships to be the cause of species-extinction/ecological-disaster ignores our knowledge of all organic substance being biodegraded to atmospheric carbon dioxide and water, that believing combustive degradation of 'fossilised' organic substance to be the anthropogenic cause of global warming ignores our knowledge of the entire global biomass being continuously biodegraded/photosynthesised to/from the carbon dioxide and water of the atmosphere; that my incident-specific responses to releases of oil/HNS are in harmony with this recycling in restoring environments to their pre-incident states as quickly and as cost-effectively as possible; and that I have invited environmentalist NGOs either to reality-validate the above beliefs where possible or to renounce them to enable knowledge-only policy to be formulated.

However, within the general belief-based aversion to 'fossil' fuels, we know that aversion to heavy fuel oil in particular arose initially from its dispersion-resistant viscosity which renders it slower to biodegrade on release to sea and shore than its less viscous alternatives; from its sulphur content which converts to sulphur dioxide on combustion; and from the nitrogen oxide emissions which arise in any internal combustion engine when cylinder temperatures are high enough for some of air's oxygen and nitrogen to combine. Again, we know that oil releases and discharges are miniscule compared to the quantities transported as cargo or combusted as fuel; that these are localised and biodegradable; that emissions of the oxides of sulphur have been diluted in the atmosphere ever since sulphide ores were first air-roasted to oxides for carbonaceous reduction to metals with carbon dioxide emission, *i.e.* since the Bronze Age; and that oxides of nitrogen have been diluted in the atmosphere since inception of the internal combustion engine.

Thus, belief-based aversion to 'fossil' fuels in general and to heavy oil in particular ought to be confronted with our knowledge that all carbonaceous substance biodegrades or combusts to the carbon dioxide of its initial photosynthesis; that this recycling is only partly interrupted by the oxygen-deficiency which forms 'fossil' fuels with their biological sulphur contents; and that their combustion merely completes the biodegradation to carbon dioxide and sulphur dioxide which would have been completed had ambient oxygen been at normal levels; and that nitrogen oxides are also recycled from the atmosphere to plants by their symbiosis with micro-organisms (articles 149 &151).

Further to heavy fuel oil, we know that an early distillation fraction of petroleum was suitable for lamps designed earlier for whale oil, except for the absence of a market for other volatile and heavy fractions until the internal combustion engine caused such demand for specific volatility-ranges as to require the heavy fraction to be 'cracked' to produce more automobile and aviation fuels while the residual heavier fractions fuelled the large engines of ships and power stations and while the ultimate tar fraction surfaced roads.

Thus, markets were acquired for all fractions with no waste, with commensurate cost-reductions and without the belief-based agitation which now seeks to ban heavy fuel oil or to remove its sulphur-content prior to combustion, despite our knowledge of atmospheric dilution having made such removal unnecessary from the coal or heavy fuel oil which was fuelling ships and out-of-town power stations. Furthermore, we know that when coal was converted to coke for conversion of oxides to metals, its sulphur-content was removed from the co-produced coal-gas prior to satisfying market-demand for indoor lighting and heating, which utilised the waste gas and recycled the sulphur to sulphuric acid production without any prior belief-based agitation for or against.

However, the localised intensity of direct coal burning in domestic grates became associated with excess deaths within London in the winter of 1952 to the extent that the Clean Air Act of 1954 banned domestic burning of all but so-called smokeless fuel (effectively coke), thus reducing the emission of carbon particles and avoiding those of sulphur dioxide. However, belief-based agitators then turned to emissions of sulphur dioxide from coal-fired power stations despite no one ever having complained of breathing difficulties let alone excess deaths from these sources, the high-stack/atmospheric-dilution policy to which they adhered having proved adequate for avoidance of both without any prior belief-based agitation for or against. However, the belief was now in so-called acid rain from sulphur dioxide emissions damaging forests, lakes and ponds while the agitation was now to close such power stations or to absorb their sulphur dioxide emissions in carbonate scrubbers to form calcium sulphate with carbon dioxide emission, this being before belief in global warming took hold .

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.

Contributed article

INTEGRATED BOOMING PLANS, EMERGENCY BOOMING STRATEGIES OR JUST THE THIN RED LINE?

Concluding part of a two part article 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

Have you encountered contingency plans that include oil booming strategies that really don't make sense?

The example below shows dramatically the difference between the responder and the people drawing the red lines.

As can be seen the red lines (D) deflect oil into a (CR) U configuration where the apex is in the middle of the river, so recovery will be difficult. In fact oil will be lost.

Why there is no back up to this collection point is yet another problem. From a practical point of view every collection point requires a back-up as there will always be some oil that gets away.

Due to the fact that sealing to a steep river bank is difficult and the plug hole vortex[1] is normally present this isn't the best way to try to collect oil.

Then there is a (P) inlet being protected after the collection point!

1 "plug hole vortex" - In the corner of a boom where it meets the bank you find a vortex which looks like water going down through a plug hole. (see below)

Now let's go to the river rather than using Google Earth.

In real life the water flow in the river is considerable faster than 1.0 knot and the river banks have difficult or impossible access through the vegetation on both river banks. (see picture on left)

The speed of the river will be determined by the dammed reservoir up stream and the amount of rainfall for the time of year when the problem occurs.

Now (see picture below, left) we have the exercise and collection booms are positioned where access is most difficult. Driving stakes into these areas is made difficult by the amount of tree roots.

Contributed article (continued)

Just to make life more difficult you are not allowed to tie any ropes to the trees.

To get to this collection point you have to jump over the protected inlet or get a boat. Pumps, skimmers, temporary storage and tanker hoses all have to moved past the inlet to be positioned near the collection point.

The calmest and most easily accessible point (see picture above right) is being protected, why I do not know.

This to me would have been the best place to deflect the oil into. Here the water is calm and the access is easy even for a vacuum truck. We would just have to protect the vegetation on the banks as best we can and deflect the oil into this perfect collection and recovery point.

There is always a need by some people to try to protect everything.

Unfortunately with the best will in the world there will always be places that cannot be totally protected.

This is one of these places. There have been occasions when we were asked to boom the mouth of this area (see photo left) near Portsmouth in the south of England.

This sort of area fills slowly during the rising tide and booms could be put in place but when the tide turns all the water needs to leave through the narrow entrance.

During this time the current speed will reach double figures and no boom in the world would be able to withstand those forces without doing serious damage.

This photo (right) is during the falling tide in the Bay of Fundy, Nova Scotia.

The height of the tide can reach 16 meters (53ft) in the back of the bay.

During each tide cycle 100 billion tonnes of water leaves the bay. That is more than the flow of all the world's freshwater rivers combined.

I have no problem with the idea of integrated booming plans or emergency booming strategies that are essential for an effective response.

I do have a serious problem with red lines; let's change the line for a circle. Now a responder is not restricted to make the decision as to what angle and where the boom should be positioned on the day of the incident.

This would be more efficient and safer for the responder.

You are invited to comment and share your own experiences.

Publications

FOR YOUR INTEREST – LINKS FOR RECENT ISSUES OF PERIODICALS

ASME EED EHS Newsletter	News and commentary on HSE issues from George Holliday	Most recent issue
Bow Wave	Sam Ignarski's Ezine on Marine & Transport Matters	Current issue
Cedre Newsletter	News from Cedre in Brittany, France	July-August 2013
The Essential Hazmat News	Alliance of Hazardous Materials Professionals	September 23 issue
USA EPA Tech Direct	Remediation of contaminated soil and groundwater	September 1 issue
USA EPA Tech News & Trends	Contaminated site clean-up information	May 2013 issue
Technology Innovation News Survey	From US EPA - Contaminated site decontamination	July 1-31 issue
Intertanko Weekly News	International news for the oil tanker community	No. 40 2013
CROIERG Enews	Canberra & Regions Oil Industry Emergency Response Group	October 2013 issue
IMO Publshing News	New and forthcoming IMO publications	Aug-Sept 2013
IMO News Magazine	News from the International Maritime Organization	No 3, 2013
Pollution Online Newsletter	News for prevention & control professionals	October 2 issue
EMSA Newsletter	News from the European Maritime Safety Agency	October 2013 issue
JOIFF "The Catalyst"	Int'l Organisation for Industrial Hazard Management	October 2013 issue
Environmental Technology Online	Environmental Monitoring, Testing & Analysis	September 2013 issue
HELCOM Newsletter	Baltic Marine Environment Protection Commission	May 2013 issue

USA: DOT CHART 15 HAZARDOUS MATERIALS MARKINGS, LABELING AND PLACARDING GUIDE

Download (This is a large file and may take some time to download) [Thanks to Hazmat 101 Group}

Events

NETHERLANDS: EUROPEAN BULK LIQUID STORAGE CONFERENCE 2013

Wednesday 30 October 2013 - Thursday 31 October 2013. ACI's European Bulk Liquid Storage Conference will be taking place in Rotterdam, The Netherlands on 30th- 31st October 2013. The bulk liquid storage industry plays a crucial role in interregional trade and faced with a volatile market, the Bulk liquid storage industry has to adapt to a growing market. The two day event will be looking at the need to invest in storage facilities and expansion of ports & terminals; with a focus on improving technical & HSE standards. More info

INDIA: MARITIME FOUNDATION SEMINAR ON "EXPLORATION, CONSERVATION AND SECURITY OF INDIA'S MARITIME RESOURCES AND ENVIRONMENT

9 October 2013, Central Park Hotel, Near Inox Cinema, Pune. The focus of the seventh seminar on maritime subjects that is being conducted by the Indian Maritime Foundation is on "Exploration, Conservation and Security of India's Maritime resources and Environment". Through this seminar, it is intended to update the knowledge amongst officers of the Army, Navy, Air Force, DRDO, Merchant marine community, Scientists and Students of military history on various aspects of marine environment and resources and issues that may need attentuion for consideration. More info

NAMIBIA: GI WACAF REGIONAL CONFERENCE 2013

04/11/2013 - 08/11/2013. The theme for the 2013 Conference is "Oil Spill Preparedness and Response Capability in West, Central and Southern Africa: Sustaining momentum in a changing world of oil spill risks". The Conference will gather the main industry and government stakeholders from 22 West, Central and Southern African countries, namely: Angola, Benin, Cameroon, Cape Verde, Democratic Republic of Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mauritania, Namibia, Nigeria, Republic of Congo, Sao Tome and Principe, Senegal, Sierra Leone, South Africa and Togo. More info

Training

UK: NEBOSH INTERNATIONAL CERTIFICATE IN OIL AND GAS OPERATIONAL MANAGEMENT

25-29 November, London. The NEBOSH International Technical Certificate in Oil & Gas Operational Safety is an industry recognised qualification delivered over 5-days for individuals with safety responsibilities in the oil and gas industry.

The qualification focuses on international standards and management systems, enabling students to effectively discharge workplace safety responsibilities both onshore offshore. The course highlights the importance of process safety management in the oil and gas industry. The course is assessed by written examination on the final day. More info

Training (continued)

EUROPE: POSOW NATIONAL TRAINING COURSES

1-20 October, Various locations. Following the training of regional task forces during the Train the Trainer Courses held in May 2013 at Cedre's Headquarters in Brest, France, National Pilot Trainings will be organised in the eight beneficiary countries of the project, between September and December 2013, to replicate the acquired knowledge of the trainers in their respective regions. Thirty professionals and volunteers will be trained in each course, in the following topics: Oil Spill Volunteer Management, Oiled Shoreline Assessment and Clean-up, and Oiled Wildlife Response. More info

Company news

USA: NRC, RESOLVE EXPAND VESSEL RESPONSE SERVICE

October 1 - National Response Corporation (NRC) and RESOLVE Marine Group announce the expansion of their 1Call response coverage for all vessels trading in U.S. waters. The service offers tanker and nontank vessel owners and operators full, single-source coverage in compliance with latest U.S. Coast Guard regulations for Salvage and Marine Firefighting (SMFF), and Oil Spill Removal Organization (OSRO).

This announcement reflects the U.S. Coast Guard's final rule in the Nontank Vessel Response Plans and Other Response Plan Requirements published in the Federal Register. The rule requires owners or operators of vessels trading in U.S. waters to submit response plans naming OSRO and SMFF providers by January 30, 2014. *The Maritime Executive* Read more

SWEDISH COASTGUARD ACCEPTS GEOSWATH SHALLOW WATER MULTIBEAM ECHOSOUNDER

This month Kongsberg GeoAcoustics has completed the prestigious Swedish Coast Guard (KBV) project with the installation and full acceptance of a 125 kHz GeoSwath Shallow Water Multibeam echosounder on the fourth and final new-build multipurpose vessel.

These vessels, all under Swedish flag, are defined as multipurpose vessels with the possibility of oil recovery, conforming to class GL 100A5 DP0 Oil Recovery Vessel E2 HC-/2 and conforming to the Swedish Maritime Administration for traffic in international voyage service area 'A'. The vessels are to serve as environmental protection and surveillance ships and will aid the Coast Guard in vessel traffic management, environmental monitoring, border security, fisheries, customs- and police checks at sea. Read more

CHUKAR WATERJET LAUNCHES NEW WEBSITE HIGHLIGHTING ITS DEEPWATER SUBSEA ULTRA-HIGH PRESSURE WATERJET EQUIPMENT

October 1 - Chukar Waterjet, Inc., a leading manufacturer of ultra-high pressure waterjet technology for the deepwater subsea environment, announced today the launching of its new website at www.chukarwaterjet.com

A STUDY OF FATE AND BEHAVIOUR OF HEAVY CRUDE OILS ON MARINE WATERS - KINDER MORGAN CANADA TESTING.

Aqua-Guard Spill Response and their RBS TRITON™ oil skimming technology achieve excellent results at a Kinder Morgan Canada "Fate and Behaviour" testing exercise with Diluted Bitumen. "The Aqua-Guard RBS TRITON 60 oil skimmer head proved again that it is capable of recovering Diluted Bitumen from the surface of the water during an oil spill. The Kinder Morgan testing facility proved to be more than adequate and we found it very easy to operate in a safety conscious, well-organized environment" says Chris Doudican of Aqua-Guard. More info and photos in next week's newsletter http://www.aquaguard.com/