ISCO NEWSLETTER

The Newsletter of the International Spill Response Community

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News

ISSUE OF DECANTING SETTLED-OUT WATER DURING OIL SKIMMING OPERATIONS RAISED AT IMO MEPC MEETING

The ISCO delegation to MEPC64 presented its paper highlighting the problems faced by masters of skimming vessels when prohibited from discharging settled-out water during operations to recover oil spillage.

The hoped-for outcome was that MEPC would recognise these problems and refer the matter back to the OPRC-HNS Technical Group with an instruction to develop guidelines with the aim of making it easier for responders to legally decant settled-out water and thus realise the net environmental benefit of being able to continue oil recovery.

The development of such guidelines to ensure that decanting operations will be carried out in a proper and responsible manner, could have paved the for MEPC guidelines for such decanting, if not for an amendment to MARPOL Annex 1.

As things stand MARPOL Annex 1, regulation 4, paragraph 3 does allow individual governments to authorise decanting in specific oil spill combating situations but, for numerous reasons, this clause is hardly ever exercised.

One of these may be an understandable reluctance by member states to accept responsibility for giving a "carte blanche" without agreed safeguards.

Nine delegations spoke in response to the ISCO Paper but the general gist was that MARPOL Annex 1 had no Unplanned Output in regard to international shipping, was thus not a candidate for amendment and that the existing provision for member states is adequate.

Under this circumstance the matter will not be passed back to the Technical Group.

ISCO will now independently work on the development of the necessary guidelines, and make them available to individual nation states for voluntary adoption within national oil spill response contingency plans.

A report by Member of the ISCO Delegation to MEPC, Dr Douglas Cormack, is given within the ISCO News section of the Newsletter.

EUROPE: SAFEMED TRAINED VTS OPERATORS CERTIFIED TO IALA STANDARDS

Fifteen candidates from Israel recently completed SafeMed II Project sponsored VTS simulator training in Malta.

October 2 - The first group of SafeMed's Vessel Traffic Services (VTS) Operator candidates have completed their training and been duly certified as VTS Operators up to the standards set by the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) and issued the IALA V-103/1 certificate.

Recently, 15 candidates from Israel completed their VTS simulator training in Malta at the VTS training facilities of Future Focus Ltd, the training provider accredited by the Maltese Authorities. The theoretical courses were held earlier in Israel. Nine more candidates from Albania, Jordan and Montenegro are expected to complete their VTS Operator training in October.

In the meantime, Ecole Nationale Supérieure Maritime (ENSM) of Marseille is providing VTS Operator training to a number of Moroccan and Tunisian candidates. Theoretical courses in both Casablanca and Tunis are ongoing and 6 simulator training courses are scheduled to take place in the coming months at ENSM's premises in Marseille.

The SafeMed II Project will be also providing further VTS training for VTS Supervisors (V-103/2) and VTS On-the-Job Trainers (V-103/4).

This training enables VTS officers who work at, or intend to work at, existing VTS installations to improve their qualifications to reach a level of qualification meeting IALA standards. Candidate VTS Operators from six SafeMed II Project Beneficiaries, namely Albania, Israel, Jordan, Montenegro, Morocco and Tunisia, are benefitting from this training. [Press release Safemed II Project]

EUROPE: 'HUNDREDS OF PROBLEMS' AT EU NUCLEAR PLANTS

The draft report found specific failings in all 58 of France's nuclear reactors

October 2 - Hundreds of problems have been found at European nuclear plants that would cost up to 25bn euros (£20bn) to fix, says a leaked draft report.

The report, commissioned after Japan's Fukushima nuclear disaster, aimed to see how Europe's nuclear power stations would cope during extreme emergencies.

The final report comes out on Thursday. The draft says nearly all the EU's 145 nuclear reactors need improving. *BBC News* Read more

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USA: MILITARY ORDNANCE IN GULF POSES THREAT TO SHIPPING, SAYS TEXAS A&M PROF

October 1 - Millions of pounds of unexploded bombs and other military ordnance that were dumped decades ago in the Gulf of Mexico, as well as off the coasts of both the Atlantic and Pacific oceans, could now pose serious threats to shipping lanes and the 4,000 oil and gas rigs in the Gulf, warns two Texas A&M University oceanographers.

William Bryant and Neil Slowey, professors of oceanography who have more than 90 years of combined research experience in all of the Earth's oceans, along with fellow researcher Mike Kemp of Washington, D.C., say millions of pounds of bombs are scattered over the Gulf of Mexico and also off the coasts of at least 16 states, from New Jersey to Hawaii. *The Maritime Executive* Read more

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ITALY: THE MAFIA'S NEW FRONT MEN

September 25 - The illegal trafficking of waste brings easy money. Large parts of Italy are filled with waste that municipalities are unable to manage, or that unscrupulous businessmen do not intend to treat properly. Some complain openly that the law is too

complicated and too expensive to obey. A mafia clan, they say privately, operates quicker and at much lower costs.

The business is so widespread that crime syndicates have started to export Italy's waste. Western Africa, Eastern Africa, the Middle East, South America and Southeast Asia are the preferred destinations. With the complicity of local governments, this massive export of untreated waste poses a tremendous danger to the global community. With entire areas of Italy filled with hazardous waste and damaged forever, organized crime syndicates are now moving to export toxic cargo abroad. Cargo ships filled with waste take off from the ports of Taranto, Venice, La Spezia, Naples, Trieste and Ancona—to name just a few– where customs officials seized over 7,400 tons of illegal waste in 2011 alone. *100 Reporters* Read more

SHELL RECORDS 15,408 BBL OF OIL SPILT IN 2011

September 19 - Shell Petroleum Development Company (SPDC) recorded about 15,408 barrels of oil spill in 2011, while about $1.1 million was paid as compensation for perceived damages to host communities as a result of the spills.

According to Shell's latest briefing noted obtained by The Guardian yesterday, the oil multinational could only recover 10,980 barrels of the spill, representing about 72 per cent, as efforts were frustrated by frequent new spills on the same site caused by repeated oil theft and illegal refining. *The Guardian (Nigeria)* Read more [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

BRAZILIAN SUPERIOR COURT SUSPENDS INJUNCTION AGAINST TRANSOCEAN

September 30 - With Petrobras, and thus Brazil, standing to lose $3 billion or more in lost revenues due to missed oil and gas production targets, the head of Brazil's Superior Court of Justice, Minister Felix Fischer, granted the suspension of the preliminary injunction against offshore drilling contractor Transocean late on Friday.

This injunction, which was handed down by the Federal Court in Rio de Janeiro on 27 September, required that Transocean stop operating in Brazil within 30 days due to a legal case surrounding the company's involvement in a bizarre oil spill from the seabed of the Chevron-operated Campo de Frade field last November. *gCaptain* Read more

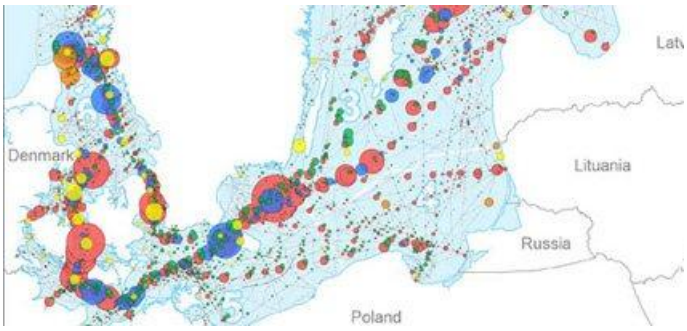
NEW ZEALAND SETTLES OVER 2011 OIL SPILL

October 2 - The government announced Tuesday it reached a $22.8 million settlement with Daina Shipping Co. regarding the October grounding.

The government said Daina and Rena's insurers, The Swedish Club, are examining the effects of various aspects of not only the spill but also the wreck itself.

Daina, under the terms of the settlement, agrees to an additional $8.6 million should salvers leave the wreck in place. *UPI.com* Read more

BALTIC SEA: RISK ASSESSMENT IN THE BALTIC SEA: FROM THE SAILING SHIPS TO THE DEAD SWAN



Map of risk hotspots in the Baltic Sea. Dot size indicating risk of collision. Colour indicating the type of accident.

Narrow straits make the Baltic coasts vulnerable to oil spills. In case of an oil tanker collision, the oil may well reach land before you can respond. With oil tankers increasing in size and number, one single accident can do a lot of damage.

In a busy sea, where 2,000 ships are navigating at any given time, the risk of shipwreck increases along with the risk of large-scale oil spills.

COWI prepared a risk assessment of this scenario for the Baltic Sea protection organisation Helcom – a unique assessment because it evaluates the risk for one specific sea, using the same method across borders throughout the region.

"We are the first to analyse and address the entire chain of processes – from sailing ships to dead swans," says Carsten Jürgensen, Chief Project Manager in COWI's Water and Environment business unit.

The BRISK project as it is called (Sub-regional risk of spill of oil and hazardous substances in the Baltic Sea), covers many aspects and includes every possible outcome, stipulating probabilities regarding traffic density, type of accident, wind conditions, seasons, extent of spill, emergency services, environmental impact and much more. *COWI* Read more

USA: GULF OIL SPILL WORKERS SOUGHT FOR HEALTH STUDY

October 3 - The National Institute of Environmental Health Sciences is making another push to get people who worked on the BP/Deepwater Horizon oil disaster cleanup to enroll in a long-term health study.

Dr. Dale Sandler, chief of the agency's epidemiology branch, said Tuesday that more than 29,000 people have enrolled so far. But, she says, the goal is to get 35,000 to 40,000 people signed up before enrollment in the study ends Dec. 31. The Advocate (http://bit.ly/SxBm6B) reports enrollment started March 2011.

The study looks at how the oil leak cleanup work affects the physical and mental health of people who participated. *Hattiesburg American* Read more

USA: SUBMERGED OIL REMAINS IN CERESCO DAM AFTER 2010 SPILL

October 3 - More than two years after the massive Enbridge oil spill that leaked more than a million gallons of toxic tar sands oil into the Talmadge Creek and Kalamazoo River near Marshall, Michigan, experts say submerged oil still remains near the Ceresco Dam.

Stephen Hamilton, Michigan State University professor and president of the Kalamazoo River and Watershed Council, has been doing research on the spill since it happened in 2010. "There is still some submerged oil left in the river, and there may be some places that require some additional work," says Hamilton.

He says because the Ceresco Dam is one of those hotspots with submerged oil because it's an area where the water in the river slows down. *WLNS.com* Read more

KOREA: CHEMICAL PLANT EXPLOSION AND HYDROCHLORIC ACID SPILL

Chemical plant explosion kills 4, injures 8

September 27 - An explosion at a chemical plant in Gumi in the southern part of Korea killed at least four workers and injured eight others Thursday, police said. The death toll may rise as some of the wounded are in critical condition, police said. *The Korea Herald* Read more

Public anger rises over Gumi acid leak damage

Crops severely damaged by a Sept. 27 acid leak from a chemical factory in Gumi, North Gyeongsang Province. (Yonhap News)

October 4 - An acid leak at a chemicals factory that exploded last week in Gumi, North Gyeongsang Province, is seriously affecting residents, crops and livestock in the neighborhood.

The explosion claimed five lives with 18 wounded. About 400 were treated for headaches and breathing difficulties, according to the Gumi government and the Korean Federation for Environmental Movement.

Gumi has set up a task force to counter the rapid spread of the leak that has affected some 100 households, and their crops and livestock some 150 meters surrounding the industrial complex.

The city office has asked the central government to designate its region a disaster zone so that it can secure finances to take immediate measures. *The Korea Herald* Read more

Dozens of villagers evacuate gas leak-contaminated village to temporary shelter

October 6 - Dozens of villagers evacuated to a temporary shelter Saturday as officials tried to assess the extent of damage from a poisonous gas leak that devastated a large farmland.

About 70 elderly residents left their village, Bongsan-ri, in the southeastern city of Gumi to a public facility considered safer from the aftermath of the Sept. 27 leak of about eight tons of hydrofluoric acid.

The chemical is an acute poison which can damage lungs and bones and affect the nervous system. *The Korea Herald* Read more
[Thanks to Don Johnson of ISCO Industry Partner, DG & Hazmat Group]

USA: OIL SHEEN MYSTERIOUSLY APPEARS OFF LOUISIANA'S GULF COAST

October 4 - An oil sheen about four miles long has appeared in the Gulf of Mexico near the site of the worst oil spill in U.S. history, a Coast Guard spokesman said Thursday.

It was not immediately clear where the oil is coming from, said Petty Officer 3rd Class Ryan Tippets.

The Coast Guard found out about the oil sheen on September 16 after someone spotted it on a satellite image from the multinational oil and gas company BP, Tippets said. A Coast Guard response team went to the location to collect samples, and sent them to the Coast Guard Marine Safety Lab in Connecticut for testing. Test results are expected in a few weeks, Tippets said. *CNN News* Read more

USA: OIL SPILL (WITH CEMENT!) IN BROOKLYN'S PAERDEGAT BASIN

Paerdegat Basin Park via NYC Department of Parks and Recreation

September 30 - Did Brooklyn really need *another* oil spill? The NYC Office of Emergency Management has warned the public not to fish or participate in any recreational activities near the Paerdegat Basin because of an oil spill in the channel, which opens to the Jamaica Bay. Of course, some of those near the basin may have been tipped off by the gas odor.

What happened? According to WABC 7, "National Grid was replacing a gas main on Thursday that runs through the waterway when 1,100 gallons of a petroleum-cement mixture spilled into the basin. Workers were 'killing' the gas main by filling it with cement, when something went wrong, and the product spilled into the water."

The U.S. Coast Guard is overseeing the cleanup, and Sheepshead Bites reports, "Coast Guard and local governmental agencies will investigate the cause of the accident. If National Grid is determined to have caused it or acted inappropriately, they will be fined, U.S. Coast Guard Petty Officer Erik Swanson said. There will also be continued testing of the waters to ensure the public's safety." *Gothamist* Read more

USA (RELATED REPORT) : JAMAICA BAY OIL SPILL CLEANUP TO FINISH THIS WEEKEND, INVESTIGATION BEGINS NEXT WEEK

Picture source: Geoffrey Croft via awalkintheparknyc.blogspot.com

National Grid is expected to wrap up decontamination operations of last week's gas and oil spill by the end of this weekend, while authorities note that the problem may be worse than originally expected.

A test of the oil that gushed from an old National Grid pipe found a PCB level of 10,000 ppm, 200 times the acceptable level and high enough to be deemed hazardous waste, a Department of Environmental Conservation bulletin notes. The sample was taken directly from the oil and not from areas where it has mixed with Jamaica Bay's protected waters, where the concentration would have been diluted.

PCBs are a cancer-causing toxin.

The unusually high PCB level is due to the fact that the defunct pipe held old oil and gas from a different regulatory era, not the cleaner compounds circulating in National Grid's active pipes.

News (continued)

IRELAND: OIL SPILL IN LAKE LEADS TO WILDLIFE FEARS

Workmen busy during the clear up after the oil spillage in the lake at Dungannon Park.INTT4012-372SR

October 1 - An Oil spill at a Dungannon beauty-spot has raised fears for the safety of the wildlife there.

Residents and people visiting Dungannon Park Lake were shocked to see thick oil forming an unsightly orange scum on the surface of the water. It could also be seen on the banks of the lake and the surrounding vegetation.

It is believed the oil leaked into the river course which runs from Eskra Lough.

Dungannon Council staff were busy on Thursday and Friday using booms to clear up the mess. *Tyrone Times* Read more

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UK: POLLUTED RIVER TO BE CLEANED UP WITH DEFRA FUNDING

The River Lea - one of the most polluted river in the UK

A green charity has been awarded £341,000 to create innovative systems to reduce river pollution in Enfield, North London.

Thames21 will use the Defra funding to reduce pollution in the Salmons Brook, a tributary of the River Lea, which is one of the most polluted rivers in the UK.

Every time it rains polluted water, contaminated by oil from roads and chemicals such as paint, is washed into the brook.

Building on the Love the Lea campaign, Thames21 will mimic nature to reduce pollution implementing a range of trapping systems such as reed beds and gravel trenches to intercept storm water before it can poison the river. *Edie Water* Read more

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USA: FISHERMEN SAY THOUSANDS OF OIL-SPILL RELATED BOOM ANCHORS CREATING NUISANCE ON THE WATER

October 3 - David Palmer makes a living off the water through his business, Lazy Boyz Seafood, in Hopedale. More than two years ago during the BP oil spill, Palmer laid out oil boom in the waters around St. Bernard Parish.

"We all put out anchors and booms around here," he said.

Little did he know at the time, those anchors would end up affecting the way he trawls for shrimp today.

"That's what we're catching," Palmer said, as he showed off one of the potentially thousands of anchors, left behind when the oil boom was picked up. *WWLTV.com* Read more

ISCO news

IMO MEPC 64 MEETING NOTES COMPILED BY MEMBER OF ISCO DELEGATION, DR DOUGLAS CORMACK

Agenda Item 7: Interpretations of, and amendments to, MARPOL and related instruments.

The ISCO paper MEPC 64/7/5 on *Discharge of Settled-Out Water during Oil Spill Recovery Operations* was presented to the Committee as follows.

“The regulations of MARPOL (Annex I) require operational discharges of oily water from ships to be through an oil-water separation system at specified oil concentrations or to be prohibited entirely in designated areas. However, this ISCO paper addresses the difficulties arising when un-treated and un-monitored co-collected water has to be discharged to the sea in oil spill response operations despite the discretionary waiver which national administrations may exercise to avoid them.

Thus, as reported to ISCO by professional spill response contractors, national administrations may not exercise the waiver, subordinate authorities may fail to request the waiver and/or individuals may be ignorant of the possibility of a waiver. Thus, in the absence of a waiver, tank capacity intended for recovered oil is wasted by the prohibited discharge of un-treated and un-monitored co-collected free water of which the volume, depending on skimmer design, can be much greater than that of the recovered oil. Again, when water-in-oil emulsions are collected, their water-content can be up to four times that of the oil-content, thus requiring emulsion breakage not only to save tank capacity by water discharge, but also to avoid the thixotropic properties which make unbroken emulsions more difficult to pump to shore-reception than to pump onboard from the sea surface.

However, ISCO recognises that national administrations may be reluctant to delegate their waiver responsibility to others; that this reluctance may be engendered by fear of tempting individuals to take advantage of the waiver in unauthorised ways; and that administrations and contractors would thus benefit from the production of guidelines on waiver-issuance or on emergency discharge-monitoring of water discharge from collection tanks acting as API-type gravity separators.

Accordingly, ISCO proposes that the Technical Group be asked to produce waiver guidelines having regard to the possibility of producing emergency monitoring equipment for use on *ad hoc* recovery vessels and/or intermediate storage barges to ensure no discharges at oil concentrations above whatever limit is practically determined by the Technical Group on the basis of known gravity separator performance. Were the Committee to accept this proposal for guidelines, ISCO would certainly volunteer to assist in their production."

Nine delegations spoke in response to the above, the gist of their remarks being that MARPOL Annex I had had no Unplanned Output in regard to international shipping and was thus not a candidate for amendment; that it provided a waiver for member states in respect of spill response, thus providing the discretionary means of avoiding the difficulties raised by the ISCO paper; and that consequently there was no need for further action by the Committee. One Delegation suggested that ISCO might pursue the matter through the London Dumping Convention, though this would entail persuading at least one member state to raise it in a forum in which ISCO has no consultative status.

ISCO thanked the Delegations for their responses, and stated that our reference to MARPOL Annexe I had arisen from its waiver provision; and that our intention was not to change the regulation of international shipping, but to facilitate pollutant recovery in national waters.

However, with reference to the numbered paragraphs of the Report of MEPC 64, we have in conclusion:

7.16 Noting that the proposal in document MEPC 64/7/5 did not receive sufficient support, the Committee agreed not to pursue this matter further.

Agenda Item 8: Implementation of the OPRC-HNS Convention and the OPRC-HNS Protocol and relevant Conference Resolutions.

The ISCO paper OPRC-HNS TG14/5/5 on *Knowledge-Based Planning for Marine Incidents* had already been presented to the Technical Group and was referred to in its report to MEPC under this Agenda Item. Thus, in the numbered paragraphs of the Technical Group Report to MEPC we have:

5.22 The Group, in considering document OPRC-HNS/TG 14.5/5 submitted by ISCO, noted the information provided on the status of development of its new knowledge-based contingency and incident-specific action plans, and invited ISCO to transmit its invitation to NGOs to provide additional input to its initiative.

However, under **MEPC Agenda Item 22 Any Other Business**, ISCO referred to the above as follows.

"The Technical Group, as reported under its Agenda Item 5, has noted ISCO's invitation to NGOs to provide additional input to its knowledge-based response planning for marine incidents. Accordingly, ISCO takes this opportunity to re-invite them in advance of issuing a more formal invitation next week.

This invitation arises because opinions (defined as beliefs partially supported by inconclusive facts) are widely mistaken for knowledge. Indeed, belief -consensus is promulgated as though it were knowledge. However, this invitation now refers NGO's and Member States to ISCO Paper OPRC-HNS/TG14/5/5 which definitively differentiates belief from knowledge by showing that beliefs are transformed to positive or negative knowledge only by evaluating their consistency or inconsistency with reality; that environmental knowledge can thus be differentiated from the environmentalist beliefs which the NGO's are now invited to reality-evaluate to positive or negative knowledge to assist in completing the knowledge-based response plans which ISCO is otherwise close to presenting to the Technical Group. The overall objective is to harmonise technology with the environment through the science of both.

ISCO will use the contact details in the report of MEPC 64 in issuing individual invitations next week."

Thus, with reference to the numbered paragraphs of the Report of MEPC 64 we have:

22.5 The Committee noted the invitation of the observer from ISCO to environmental NGOs to provide input on its work related to Knowledge-based Response Planning for Marine Incidents involving oil and HNS and its intention to formalise this invitation by letter in the coming weeks.

However, as to this ISCO Newsletter report, it should be noted that the decanting needs identified in ISCO document MEPC 64/7/5

had already been identified in ISCO document OPRC-HNS 14/5/5; and that these needs will be dealt with according to the above presentation of document MEPC 64/7/5 when our Knowledge-Based Response Plans are completed in accordance with the above presentation of document OPRC-HNS TG 14/5/5.

INTERNATIONAL RESPONSE RESOURCE INVENTORY

Alert – A new post has been added to the RRI Correspondence Group page. Members should log in, go to the IMO Section and select Work Groups and RRI Project.

The purpose of the Correspondence Group is to assist ISCO in relaying the views of our members as the project develops and to help define how ISCO can most effectively ensure that the private sector within the spill response community makes a positive contribution to this important development for streamlining the mobilisation of spill combat resources during major incidents.

In the midst of a very large oil spill, having the right response equipment at the right time in the right location is crucial. Facility in acquiring essential equipment from one's own nation is not enough. There needs to be an efficient process to source critical resources worldwide.

ISCO Members who are interested in this project can still join the ISCO Correspondence Group. Please contact the Secretary john.mcmurtrie@spillcontrol.org

OVERDUE SUBSCRIPTIONS

Mary Ann Dalgleish, ISCO's Membership Director, does not have an easy job and it's made more even difficult when she has to spend time chasing up payment of overdue subscriptions. Please help her to reduce unnecessary work by paying subscriptions promptly when they are due.

REMOVAL OF MEMBERS WHO HAVE IGNORED PAYMENT OVERDUE REMINDERS

Please be aware that the Secretariat is about to cancel the membership of a few who have ignored reminders to pay overdue subscriptions.

If you have not responded to reminders it will be assumed that you wish to discontinue your membership and you will be removed from the roll. If failure to pay an overdue subscription is due to an oversight or other circumstance, please get in touch immediately.

The Secretariat does not cancel memberships lightly. The removal of a member (and reinstatement if outstanding fees are settled) entails a considerable amount of work in updating records, mailing lists and website entries.

Science and technology

A COMPLETE SOLUTION FOR OIL SPILL CLEAN-UP ?

October 3 - Scientists are describing what may be a "complete solution" to cleaning up oil spills — a superabsorbent material that sops up 40 times its own weight in oil and then can be shipped to an oil refinery and processed to recover the oil. Their article on the material appears in ACS' journal *Energy & Fuels*.

T. C. Mike Chung and Xuepei Yuan point out that current methods for coping with oil spills like the 2010 Deepwater Horizon disaster are low-tech, decades-old and have many disadvantages. Corncobs, straw and other absorbents, for instance, can hold only about 5 times their own weight and pick up water, as well as oil. Those materials then become industrial waste that must be disposed of in special landfills or burned.

Their solution is a polymer material that transforms an oil spill into a soft, solid oil-containing gel. One pound of the material can recover about 5 gallons of crude oil. The gel is strong enough to be collected and transported. Then, it can be converted to a liquid and refined like regular crude oil.

That oil would be worth $15 when crude oil sells for $100 a barrel. "Overall, this cost-effective new polyolefin oil-SAP technology shall dramatically reduce the environmental impacts from oil spills and help recover one of our most precious natural resources," the authors said. *Science Codex* Source: American Chemical Society More info

VESSELS OF CONVENIENCE FOR RESPONSE TO OFFSHORE OIL SPILL INCIDENTS

Some people think it's easy to quickly find suitable vessels of convenience – this isn't the case. In this article, Member of ISCO Executive Committee, Captain Bill Boyle describes a project being advanced by ISCO Corporate Member, Briggs Environmental Services Ltd. to create a register of suitable vessels and carry out crew training.

Picture on left - Fishing vessels towing fire boom – Gulf of Mexico 2010

Over the 18 months Briggs Environmental Services General Manager, Captain Bill Boyle MNI, has been working closely with the Scottish Fisherman's Federation's, Michael Sutherland, Director of Strategy and Business Development and John Watt, SFF Industry Advisor, looking at how Scottish fishing vessels could be used during an oil spill incident.

During the Deepwater Horizon incident in the Gulf of Mexico 2010, Captain Boyle was brought in as Burn Co-ordinator by Elastec American Marine, the manufacturer of the Hydro Fire Boom.

As Burn Co-ordinator Captain Boyle headed up a fleet of 45 vessels which included local fishing vessels. The fishing vessel crews were given training in how to tow containment boom which they picked up very quickly.

In the aftermath of the Deepwater Horizon disaster in the Gulf of Mexico the UK tested its response to a Deepwater Horizon type of incident in May 2011 by running Exercise Sula in Shetland.

Three local fishing vessels from Shetland, *Radiant Star*, *Prolific* and *Copious* were recommended by the SFF to work with the Briggs anchor handler, *Kingdom of Fife* and, after completing a survey of the vessels and training the crews, it was agreed that they would be used in the exercise to tow containment boom.

Picture on right - Kingdom of Fife working with the fishing vessel Radiant Star towing containment boom

Since Exercise Sula, Briggs working with the SFF have fitted out fishing vessels with oil dispersant spray systems and put together a training programme for fishing vessel crews that can be called upon to work in an oil spill incident.

Briggs Environmental Services has also identified the need to put together a vessel register for vessels of convenience that could be used in an oil spill incident. This would not only include fishing vessels but also supply vessels, anchor handling vessels, stand-by vessels and coastal tankers.

Accredited Oil Spill Response Training for vessel crews can also be given by Briggs Environmental Services.

Fishing vessels Prolific and Copious towing a Current Buster Oil Containment Boom

Cormack's Column

In this issue of the ISCO Newsletter we are printing No. 97 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

CHAPTER 97: KNOWLEDGE OF SHORELINE CLEANING

Apart from the solid oil separation from sand effected by the Brighton Beach Cleaner there were no means of separating other more mobile pollutant oils from sand or for that matter from gravel, shingle or pebble beaches. Thus, major volumes of all such particulate materials co-collected with only very thin layered surface contamination had to be transported to landfill at great cost and no downstream benefit wherever and whenever beach pollution was dealt with by scraping. Clearly, the separation of pollutant from beach particle would provide the possibility of recycling the former and in any case would enable the latter to be returned to the beach with a very substantial reduction in transport costs.

To this end, WSL used its mineral processing technology to produce a variable-angle conveyer-belt elevator down which cold or heated water with or without cleaning agents would flow to be recycled through an API type separator from the water surface of which accumulating pollutant could be recovered while the cleaned particulate matter would drop to ground level from the top of the elevator. Thus, WSL reported that satisfactory performance for beach return could be achieved for sand, shingle, pebbles and stones on a single pass for low viscosity pollutants at ambient temperature; that increase in viscosity required the water to be heated; that the water-recycling assisted heat conservation; that, in any case, viscosity could be reduced by pre-treatment with 1% kerosene to give satisfactory results even with heavy fuel oils; that while absolute cleanliness could not be guaranteed, this Mark 1 was capable of improvement and that multiple units *in situ* or close to the shore would achieve a cleanliness level which would not have invoked response in the first place.

Again, Canadian workers, restricting themselves to small particle sizes and ignoring more massive particles, used a conveyer belt to top-load oily sand into a 30cm diameter x 2m high column into the bottom of which steam-heated water was injected at sufficient rate to create a fluidised sand bed from which an initial oil contamination of 2% was reduced by 95% at a throughput of 1 tonne of sand per hour. However, it was found that fluidisation was difficult to achieve unless the feed was very uniform while the presence of debris particles of varied size could block the system. Yet again, workers in the USA have directed high velocity steam jets at oiled sand being conveyed over an oil reception tank on an inclined, vibrated and perforated tray from input hopper at the low end to a clean sand receptor below the high end.

However, agitated washing of pollutant from particulate matter can be achieved where it lies. Thus, at the *Amoco Cadiz Incident* sand and gravel beaches were cleaned by a large number of hand hoses from a manifold supplied with seawater which thus agitated the beach material to loosen and drive the pollutant into the adjacent boomed area for collection by Egmopol skimmers operated over the boom from a barge on its outer side. This agitated washing technique was also used in intermediate storage pits dug and lined for the purpose at this incident. In these the water jets loosened the pollutant to float clear of the solid on the initially rising water level in the pit though this oily water mixture was then pumped to a temporary API type separator to finally separate the loosened pollutant from the water which loosened it. Though all of this was achieved on Amoco Cadiz oil with ambient temperature water, the School of Ocean Sciences at the University of Wales at Bangor has suggested bio-diesel as an alternative to the kerosene used by WSL to lower pollutant viscosity, though any difference in their relative bio-degradation rates can be no more than marginal.

The alternative to separating pollutant from its associated shoreline particulates is to stabilise them within a solid/continuous accretion of the individual particles. As with the above technique of agitated washing, this stabilisation was also undertaken at a large scale at the *Amoco Cadiz Incident.* The intention is to add quicklime to the sand to encapsulate the oil within the resulting cement. The original German patent calls for 2% of oleic acid and additives such as aluminium sulphate or phosphogypsum, while French practice omitted the oleic acid. The process has been carried out with adjustments in lime content in relation to analysis of oil contents in the range of 5-20% and with the oily sand being layered to a depth of 20-30 cm before mixing in the quicklime with appropriate mixing equipment and compacting with standard highway construction equipment thus incorporating it directly in an active construction project. At the *Amoco Cadiz Incident*, a plant consisting of a sack opener, receiving hopper, continuous weighing system for quicklime addition, a mixer and a discharge hopper capable of processing 750 tonnes of oily sand per day was set up at Brest. Such a plant permits better quicklime dust control and general conditions of work than are possible on an active construction site. Even so, appropriate clothing and eye protection must be worn when working with quicklime.

Similar results to that of quicklime hydration are available from such proprietary hydraulic binding materials as Chemfix, Petrifix and Sialosale all of which can be similarly mixed in fixed or mobile plant to produce construction powders or blocks. Such plant can be established in 2 - 4 weeks and thereafter process 500 - 700 tonnes per day, though optimal performance requires long runs and feed-material of constant homogeneity. Again, while the *Amoco Cadiz Incident* coincided with substantial construction work in the port of Brest, a need to transport the product of the Brest stabilisation plant elsewhere would have reduced whatever cost-effectiveness it achieved.

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.

Events

ITOPF SEMINAR & RECEPTION – AMSTERDAM, 15TH NOVEMBER 2012

ITOPF will be holding an afternoon seminar following its Board meeting on Thursday 15th November 2012 at the Hilton Amsterdam. The seminar will focus on HNS and shipping, with particular emphasis on R&D and preparedness to incidents. It will be followed by a drinks reception hosted by ITOPF. The seminar is free of charge and will provide an excellent opportunity for those involved with the marine transportation of HNS to exchange views on current issues. A copy of the seminar programme and a booking form will be available on the ITOPF website shortly. http://www.itopf.com/

CLEAN GULF 2012 – NEW ORLEANS, 13-15 NOVEMBER 2012

Over 2,000 emergency responders are set to converge from November 13 to 15, 2012, in New Orleans, Louisiana, for the CLEAN GULF Conference & Exhibition. Key professionals and decision makers from throughout the Gulf Coast and beyond will come together to view the latest products, services, and technologies, as well as hear about the latest trends and developments in the oil spill prevention and response industry. For more information, visit www.cleangulf.org/vert

TRIENNIAL OIL SPILL SERIES NEWS

SPILLCON

In 2013, the next event in the series will be Spillcon 2013, the Asia-Pacific Oil Spill Preparedness Conference. This will be held at Cairns, Queensland, Australia, between April 8-12. The event will be held at the Cairns Convention Centre, and in addition, the Conference will include an Exhibition and a Response Issues seminar. Check the website for information, www.spillcon.com.

IOSC

In 2014, the series moves to the USA. IOSC 2014 will be held in Savannah, Georgia, between May 5-8. Check the website www.iosc.org for information.

INTERSPILL

The Interspill Steering Committee expect to announce its venue for the 2015 European Conference & Exhibition at the end of 2012. Check the website www.interspill.org for updates, to register for 2015, and for information about any of the previous events, including video of 2012 in London, and going back to the original event in 2000, in the Interspill archives.

[Thanks to Roger Mabbott of ISCO Corporate Member, UK Spill Ltd.]

Training

LAST MINUTE REMINDER - UK & IRELAND: ISAA INLAND OIL SPILL TRAINING EVENT

Your chance to grab one of the few remaining places.

Organised by the International Spill Accreditation Association, this is a two day training event taking place at Castle Archdale on the beautiful Lough Erne, Enniskillen, on Monday and Tuesday 15-16 October 2012.

The training course is ideal as a refresher course for experienced personnel and, for new trainees, it provides a first class opportunity to gain essential knowledge.

Attendees who successfully complete the course will be awarded certificates.

Download the Training Programme and Booking Form

Due to space limitation some intended Newsletter content is being held back for inclusion in next week's issue