

ISCO NEWSLETTER

The Newsletter of the International Spill Response Community Issue 334, 14 May 2012

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News

CREATION OF AN INTERNATIONAL INVENTORY OF SPILL RESPONSE RESOURCES

An international group has stared to work on the creation of an international Response Resource Inventory (RRI) for spill response. The initiative is part of a project introduced at the IMO Marine Environment Protection Committee by the delegation of the United States.

The Deepwater Horizon (DWH) mobile offshore drilling unit (MODU) oil pollution incident highlights the importance of international stakeholder planning and coordination as a method to ensure maximum resource availability and utilization during a catastrophic oil spill or hazardous substance event. Several nations stepped forward to assist the United States during the course of the incident. These offers included equipment, technical expertise, and general assistance. The generosity of support from the international partners of the United States cannot be overstated, however, the process for requesting and receiving emergency assistance during DWH was proven ineffective and antiquated. Given today's robust worldwide oil exploration initiatives and transportation patterns, the international community must be prepared to address the challenges faced by responders under a myriad of conditions.

Lessons learned from the DWH incident indicate a need to develop collaborative processes regarding cooperation, in particular, robust mechanisms for handling and coordinating international offers of assistance during a major pollution incident. Using the International Convention on Oil Pollution Preparedness, Response and Cooperation (1990 OPRC) as a basis for the establishment of such guidelines provides the mechanism for such an undertaking. The guidelines will address the challenges of ensuring situational awareness of the incident among Member States, while effectively supporting the response resource needs of the affected Member State. The guidelines should identify common terminology that assists the Member State in identifying resources needed and the status and disposition of available resources. The guidelines should also address issues related to customs and trade issues, transport logistics, categories for offers, mobilization and demobilization. Furthermore, the guidelines should identify a specific process for costing, invoicing, and paying for resources provided. Ideally, this would lead to the establishment of a Resources Inventory System.

The initiative was further progressed at the OPRC-HNS Technical Group Meeting in March 2012 when several delegations, including ISCO, agreed to form a Correspondence Group to work on the project and present recommendations to the next meeting of the Technical Group in September 2012

As the organization representing the international spill response community, with a membership that includes most of the world's leading response contractors and equipment manufacturers, ISCO is planning to focus its work on the

News (continued)

proposed Response Resource Inventory and specifically to concentrate on the resources available from the private sector. ISCO will be forming an internal working group and over the coming weeks and months will be consulting with interested members on how best to move forward. It is anticipated that response contractors and manufacturers will be quick to realize the commercial advantages of being part of this project. Further developments will be reported in the ISCO Newsletter.

EUROPE: DEAL OVER EXTENDED REMIT FOR EMSA



Rapporteur Knut Fleckeinstein presenting the compromise

A deal was struck between the European Parliament, Council and Commission on the revision of EMSA's founding regulation. The legal basis sees EMSA's remit divided into core and ancillary tasks.

Core tasks include assistance to the Commission in preparing and updating legislation and working with member states to develop technical solutions for the implementation of relevant EU maritime law. Also now included in this category is assistance in the event of pollution from offshore oil and gas installations.

EMSA Newsletter Read more

NEW ZEALAND: SVITZER MAKES GOOD PROGRESS ON RENA SALVAGE

May 10 - Svitzer has continued to make good progress removing containers and debris from the Rena wreck over the past week.

The Braemar Howells recovery team has made strong progress in cleaning up beaches and coastal areas of the Coromandel and Great Barrier Island. The number of containers recovered and brought ashore by Braemar has risen to 769. This leaves an estimated 201 containers in the bow section, most of them empty, and a further 358 in the aft section or on the seabed nearby.

The Maritime Executive Read more



RUSSIA: BASHNEFT HALTS WORK AT TREBS OVER OIL SPILL

May 5 - Russian mid-sized oil firm Bashneft has halted work at the Trebs oilfield in the Nenets Autonomous Area in the Russian Arctic to investigate a recent oil spill at the site, the regional administration said on Saturday.

The accident occurred on April 20 when the company was conducting work to re-enter exploration well 11 at the Trebs oilfield. An oil blowout, which sent oil gushing to a height of 25 meters, was only stopped two days after the accident. *Rianovosti* Read more

CHILE: WRECKED BRAZILIAN SHIP LEAKING OIL IN ANTARCTICA

May 9 - A wrecked Brazilian ship is trapped in ice and spilling fuel in Antarctica, with no hopes of containing the damage until the long South Pole winter eases next October.

The "Endless Sea" capsized and sank in 39 feet of water last month near where Chile and Brazil have navy bases. The crew was rescued without injury, but poor weather kept them from diving below to check the damage until Wednesday. The ship carried about 2,100 gallons of oil but Veronica Vallejos of the Chilean Antarctic Institute tells the Associated Press that the extent of the spill is unknown. *USA today* Read more

NIGERIA: LEAK HITS SHELL NIGERIA PIPELINE AT CENTER OF ENVIRONMENTAL CASE

May 8 - A troubled Shell oil pipeline in Nigeria ruptured, spilling around hundreds of gallons of crude oil a minute for around 24 hours, a member of a nearby community told msnbc.com on Tuesday.

A company spokesman confirmed the onshore spill on the Bomu-Bonny pipeline in Nigeria's Delta region but said the company would not release any details related to it until an ongoing investigation involving the Royal Dutch Shell-run joint venture, SPDC, Nigerian regulators and representatives of the local community was complete. *Msnbc.com* Read more

CANADA: THE GEAR'S HERE, BUT SPILL MAY BE FAR OFF



An oil-containing boom is laid out from one of Western Canada Marine Response Corp.'s 28 spill-response vessels.

May 6 - The biggest toys in B.C.'s oil-spill cleanup toybox are stashed on Vancouver Island but It could take Island crews 72 hours to reach remote parts of B.C. coast

Western Canada Marine Response Corp., the only Transport Canada-certified organization responsible for cleaning up marine oil spills on the West Coast, has caches of equipment in communities from Port Hardy to Esquimalt, including a 56-metre barge in Esquimalt, the organization's largest skimming vessel in Nanaimo and zoombooms, floating bladders and other goodies in eight Island communities.

Even with that stash, it could take WCMRC up to 72 hours, plus travel time, to assemble the equipment at the scene of a major spill - a time frame that exceeds Transport Canada standards.

"But fishermen and contractors can be on the scene quite quickly and would be our primary responders in remote areas," said Bruce Turnbull, WCMRC business support manager.

"We train these people every year and teach them to deploy booms and understand the mechanics of basic oil-spill response," he said. WCMRC, with 22 fulltime staff, trains about 100 contractors and 200 fishermen every year. *Times Colonist* Read more

USA: OUTRAGED GREENPEACE RELEASES IMAGES OF OILED TURTLES

May 7 - Photos belonging to the federal government showing dead sea turtles covered with oil from the **BP Deepwater Horizon spill**, live turtles in boxes being sprayed with water, and a room full of plastic bags that may contain more dead turtles were released by **Greenpeace USA** on Monday as evidence of what the group contends has been a conscious effort by the White House to downplay the effects of the spill.

The photos were sent to Greenpeace last week by the **National Oceanic and Atmospheric Administration**, nearly two years after the environmental group submitted a July 2010 request under the federal Freedom of Information Act.

NOAA officials did not respond to requests for comments on the photos on Monday. However, the federal agency took the lead in responding to reports of oiled wildlife in the Gulf of Mexico during the spill and has also led the effort to gather information about the spill's effects on natural resources. *Times Picayune* Read more



NEW ZEALAND: COME CLEAN OVER TIMARU OIL SPILL SAYS PETERS

May 5 - New Zealand First has called on Environment Canterbury and Timaru Port authorities to reveal the extent of a major oil spill in the area during the week.

Rt Hon Winston Peters says he has been reliably informed that 40,000 litres of fuel was spilled and all that authorities will reveal is that it was a "significant" amount.

Mr Peters says the people of South Canterbury have a right to know the extent of the pollution on their coastline and what is being done about it.

"This oil spill from a deep sea fishing boat happened because someone made a mistake.

"An alarm should have sounded that the oil was going into the sea and an inquiry should establish whether this safety system failed". Scoop Independent News Read more

News (continued)

NIGERIA: JONATHAN RECEIVES INTERIM REPORT ON OGONI OIL SPILLS

May 8 - Minister of Petroleum Resources, Mrs. Diezani Alison-Madueke, said an interim report of a special review committee on the United Nations Environmental Programme (UNEP) report on Oil Pollution in Ogoniland has been submitted to President Goodluck Jonathan for further action.

Making the disclosure to THISDAY in Washington DC, the Minister said the UNEP report would be further evaluated with a view to ascertaining areas that would be adopted. The committee was set up by the President last August to undertake a holistic review of the report, which indicted Shell Petroleum Development Company of Nigeria (SPDC) of decades of oil pollution in surface water all over the creeks of Ogoniland and make recommendations to the Federal Government on immediate and long-term remedial actions.

UNEP had in the report released in August 2011 noted that Ogoni would need the world's largest ever oil clean-up, which could take up to 30 years to complete.

Also, Amnesty International and the Centre for Environment, Human Rights and Development, (CEHRD) had in a recent report, accused the Anglo Dutch Shell of deliberately under reporting a major oil spill in Nigeria's oil-rich Niger Delta, noting that the spill "was far worse than Shell previously admitted." This Day Read more

USA: BP'S NEW SYSTEM FOR CAPPING DEEP-WATER OIL WELLS ALMOST READY

May 7 - Following the Deepwater Horizon oil spill in the Gulf of Mexico in 2010, BP, and other oil companies, have been developing more effective systems for capping the oil flow from damaged deep-water wells.

Their 35 foot tall, 100 ton lump of steel adds to the other systems designed to work in the in deep-water wells around the world, such as the Gulf of Mexico, Angola, and the North Sea. However, BP's system is different in that it has been designed to be flown around the world on cargo planes to wherever it is needed; reducing the deployment time.

It would take about 35 trailers to load the system onto five Russian cargo planes and two Boeing B747-200s. BP estimates it could take up to 10 days to get the system to the most distant drill sites, such as off the coast of Australia, but for areas such as the coast of Brazil, the containment cap could be in place within five to seven days.

Richard Morrison, vice president in charge of BP's global deep-water response, said they had consulted the experts who were involved during the April 2010 Macondo well blowout to devise the system. They thought through all possible scenarios, and designed the equipment to best suit each environment and situation. Geir Carson, BP's containment response system team leader, said that response plans have been drawn up for all areas where BP are currently involved in deep-water drilling. "There's more to this than sending a kit to a region and then figuring out how to use it."

OilPrice.com

Read more

USA: DEPARTMENT OF THE INTERIOR PROPOSES NEW FRACKING RULE

May 13 - The <u>U.S. Department of the Interior</u> on Friday released proposed regulations for hydraulic fracturing operations on federal and Indian lands.

"As we continue to offer millions of acres of America's public lands for oil and gas development, it is critical that the public have full confidence that the right safety and environmental protections are in place," Interior Secretary Ken Salazar said. "The proposed rule will modernize our management of well stimulation activities — including hydraulic fracturing — to make sure that fracturing operations conducted on public and Indian lands follow common-sense industry best practices."

The rule would apply to more than 750 million acres managed by the <u>Bureau of Land Management</u> and Indian tribes, including all of <u>Osage County</u> in <u>Oklahoma</u>. *NewsOK* Read more

OMAN: PORT OF SOHAR CONDUCTS MAJOR OIL SPILL RESPONSE EXERCISE

May 13 - Sohar Industrial Port Company (SIPC) in cooperation with Oman Pesco which is specialised in environmental protection and oil spill response services conducted a live oil spill response exercise in order to test the emergency preparedness and response capabilities of the Port.

The exercise saw the participation of the Ministry of Environment and Climate Affairs, Sohar Environmental Unit, Royal Oman Police, C-Steinweg and other Port of Sohar Tenants.

The exercise scenario featured an imaginary spill that resulted from a rupture in the transfer line due to excessive pressure while a vessel alongside the berth was conducting a bunkering operation. Upon receiving the spill notification, the Port Coordination Centre notified the Emergency Duty Coordinator (EDC). *Times of Oman* Read more

STANZEL TO GUIDE INTERTANKO THROUGH FIVE YEAR PLAN



May 11 - Katharina Stanzel, currently deputy managing director of INTERTANKO, will take on the role of managing director on 1st July, replacing Joe Angelo.

Angelo will return to his previous position of deputy managing director and director for regulatory affairs and the Americas.

"We are delighted that Kathi has been confirmed as INTERTANKO's next managing director," said INTERTANKO chairman Capt Graham Westgarth. "Kathi's vision, and dedication and commitment to INTERTANKO and its members will be invaluable as she takes over the leadership of our first class international shipping association.

"We are also extremely pleased to have Joe continue with INTERTANKO as part of the leadership team. Joe agreed to take on the duties and responsibilities of managing director as part of our long term succession plan and he has served us well in that capacity," he said. *Tanker Operator* Read more

ISCO News

CURRENT ISCO INITIATIVES

Dr Douglas Cormack follows up last weeks reports on initiatives on decanting settled-out water during spill response and controlled release of oil/HNS for R&D purposes. He describes the background to the ISCO initiative in developing a more effective approach to contingency planning that properly takes into account and applies available scientific knowledge.

The R&D programme conducted by the UK's Warren Spring Laboratory into Oil/HNS pollution and response produced the environmental knowledge now under review in Cormack's Column. However, environmentalist belief in species-extinction/ecological disaster has always opposed full use of this knowledge despite being refuted by it.

Thus, we have long known that fully spread layers of Oil/HNS are too thin to produce more than a few parts per million in the top metre of the water-column; that these concentrations subsequently tend to zero by dilution and degradation within the column as a whole without significant toxic effects; that the numbers of heterotrophic bacteria at the base of the ecosystem/food-chain actually increase where oil component concentrations extend their food supply beyond the degradation-products of more complex species within the ecosystem's organic carbon-cycle; that while oil slicks coat individual birds, the significance of the numbers thus dying are assessable only by comparison with the death/birth rates which maintain species populations; that environmentalists publish no such comparisons; and that, in any case, no incident has thus far produced the species extinction/ecological-disaster which belief expects and reality fails to deliver. Nonetheless, it is this belief which prevents the decanting of water in incident response and the release of Oil/HNS for R&D.

However, even more paradoxically, this belief also inhibits use of safe-haven for the cargo/bunker transfer which, in preventing further release, reduces the coating of shorelines and organisms. Again, this belief paradoxically inhibits the use of dispersants to increase the natural dispersion rates which do more to prevent the coating of shorelines and organisms than either dispersant application or mechanical recovery for which the encounter rates are limited by the layer-thinness which limits dispersed oil concentrations, whether natural or dispersant-induced.

Thus, on the basis of knowledge-acceptance/belief-rejection, ISCO is preparing a general-contingency/ incident-specific approach to response planning in which the latter will derive from the former. Thus, the contingency plan will identify the physicochemical parameters of Oil/HNS which control the floating, sinking, evaporating, emulsifying dispersing and dissolving rates of pollutants at sea and which predict the amounts remaining for dispersant treatment, mechanical recovery and/or stranding as functions of time and wind/tide vectors. Further to stranding, the contingency plan will identify the shoreline parameters which govern pollutant adhesion/penetration, dispersion, recovery, downstream-processing, heterotrophic bioremediation, recycling and/or disposal.

Thus, the contingency plan will be a general repository of response knowledge available to all who need/want to know, while substitution of incident-specific values for the parameters relating to the substance released, and to the shorelines of interaction, will derive the incident-specific action/inaction plan for each incident in sequence. Conversely, record keeping during implementation of incident-specific action plans will keep the general contingency plan up-to-date as a counter to the frequency of national staff changes and the infrequency of major incidents.

The intention is to bring this knowledge-accepting/belief/rejecting approach to the attention of IMO and individual member states; to publicise the familiarity of ISCO/ISAA contractors with it; and to commend them to IOPCF, ITOPF, P&I Clubs *etc* as cost-effective alternates to the current non-cost-effective thraldom of reality-refuted belief.

More information on other ISCO initiatives will follow in next week's Newsletter.

ISCO AT CLEAN PACIFIC THIS WEEK IN LONG BEACH, CALIFORNIA

If you are attending the Clean Pacific Conference and Exhibition please make a point of visiting ISCO at Booth 506.

ISCO President David Usher and Membership Director Mary Ann Dalgleish will be in attendance and ready to answer questions on the work that ISCO is doing for the international spill response community. With so much going on, it's a great time to join ISCO and gain the many benefits that membership brings.

ELECTION OF MEMBER OF ISCO COUNCIL FOR INDIA



Following on the recent election ISCO is pleased to announce that Captain D.C. Sekhar MNI has been appointed as the Representative of India on the ISCO Council.

We offer our congratulations to Capt. Sekhar on his appointment.

Capt. Sekhar has been managing director of AlphaMERS Pvt. Ltd. since 2010. He began his sea-going career as a cadet in 1980 and progressed through the ranks in the Merchant Navy gaining experience in tanker operations as a junior and senior officer. Among his qualifications he is an experienced auditor for ISO 9001, ISO 14001, ISM Code, ISPS Security Code. He is a trained marine incident investigator and experienced in tanker fleet risk management.

Currently he is guiding in-house R&D in spill response equipment capabilities and developing a decision support system for the incident response on-scene-commander.

The full name of his company, which is based in Bangalore, is Alpha Marine Emergency Services Private Limited. The company provides pollution control services for the marine industry.

Contributed article

ENVIRONMENT CANADA ELIMINATES ITS REGIONAL CAPACITY TO PREVENT, PREPARE AND RESPOND TO ENVIRONMENTAL EMERGENCIES

An article received from a "soon to be former Environmental Emergencies Officer"

Over 40 years ago off the coast of Nova Scotia the Liberian Tanker Arrow ran aground, sank and discharged over 100,000 barrels of Bunker C oil into the Atlantic. The Chedabucto Bay area was devastated by pollution as the Canadian government was ill prepared for any such event. Since then, Canada under the guidance of a directive issued by the government's cabinet developed one of the most comprehensive environmental emergencies program in the world that was until the 2012 Deficit Reduction Action Plan took aim at the Department of the Environment (Environment Canada).

In April of this year, after already receiving a crippling round of cuts in 2011 Environment Canada management indicated that over half of the Environmental Emergencies Officer positions located in the regional centres across Canada would be eliminated. Remaining officer positions would be amalgamated under a new structure to be located in Montreal. The elimination of the regional officers will effectively end any significant local and regional level engagement in the prevention of and the preparedness for environmental emergencies.

Like many countries with multiple levels of government there is overlap in jurisdiction, mandate and regulation. To attempt to describe the regulatory landscape would be futile. That being said, the regional Environment Canada Environmental Emergencies Officers as part of their core duties attempted to bridge that quagmire of regulation and jurisdiction with an initiative called the Regional Environment Emergency Team. The approach was simple, in peace time bring together the agencies, the government, the partners and the stakeholders to hatch out a plan on how to prioritize environmental sensitive resources, meet specific regulatory requirements, build consensus and most importantly build effective working partnerships. Across the regions the initiative was delivered in different manners but always in a way that facilitated an open forum for the participating parties. With the loss of environmental emergency officers in the regions and with no agency tasked with the duty to ensure regional level environmental emergency preparedness it can be anticipated that the oversight of the response to future environmental emergencies will not be coordinated in a way that will be effective nor ensure protection of Canada's sensitive natural resources.

In addition to the provision of oversight, technical expertise, guidance and at times direction during oil spills the Environmental Emergencies Officers in the regions delivered those services during other significant environmental emergencies. Train derailments, fires involving hazardous materials, industrial accidents and secondary events resulting from the damage caused by natural disasters are just the tip of the iceberg. Environmental Emergencies Officers filled a niche that was not being filled by any other agency. Our expertise in understanding the risks associated with the hundreds of industrial chemicals, later used to guide the development and implementation of an environmental emergencies regulation became an invaluable asset to government agencies tasked with ensuring public safety and environmental protection during large events such as political summits and major sporting events. Regional understanding of trade, practices and sensitivities is imperative to the effective delivery of prevention, preparedness and response advice.

Contributed article (continued)

With the reduction in staffing and the amalgamation of the remaining officers in a central location, it may not be possible for the program to maintain an understanding of the regional issues and deliver the services which until now have been affective at preventing and reducing the consequences of environmental emergencies. Efforts to work with agencies on the preparedness for environmental emergencies while not completely eliminated will be greatly scaled back to only include those activities which are associated with inter-agency and international agreements. Response efforts will be reduced to by request only, significant events and those where the Canadian Coast Guard are engaged as the federal monitoring agency. A reduced response has the potential to lead to a reduced officer knowledge base, diminished abilities and weakened relationships. Affective responses efforts to significant events will wholly depend on the abilities of the new management and officers to leverage the retained knowledge and the pre-reduction relationships.

Despite not being part of the path forward and not in agreement of the changes to the environmental emergencies program I can only hope that the thousands of kilometres of Canada's beautiful shorelines, waterways, lakes and its natural resources continue to be protected from pollution associated with environmental emergencies.

Cormack's Column



In this issue of the ISCO Newsletter we are printing No. 76 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 76: KNOWLEDGE OF MECHANICAL RECOVERY

Oil and emulsion skimmers are intended to remove comparatively thin layers of pollutant from the surface of the water on which it is floating. We have seen that in interceptors such as those of the API type, it is always possible to maintain layer thicknesses adequate to the removal of significant quantities of pollutant per unit operating time; that such layer thicknesses are simply allowed to accumulate within the walls of such as the on-line API separator; and that such accumulation occurs because of the continuous upward migration of droplets according to Stokes' Law to coalesce at the water surface or with the pollutant layer floating thereon while the water itself exits. However, in contrast, we have seen that in the absence of confining walls, oils and emulsions spread according to the Fay equation through the ever-thinner layers of Phases I, II and III to the invisible, while naturally dispersing to droplets of ever-decreasing size and ever-increasing water column dilution whether assisted or not by dispersants.

Thus, while layer thickness grows in API separators to facilitate recovery, it decreases on the sea surface to make recovery impossible unless this decrease can be reversed by collection-booming, though this is applicable only to very small fractions of the total area of spread. Indeed, on this evaluation, it is little wonder that mechanical recovery has a poor performance record, if recorded at all, in response operations. However, it was against this background that the WSL R&D programme sought to relate skimmer design to the effectiveness controlling factors of layer thickness, waves, and viscosity. This approach recognised that recovery rate depended on thickness-dependent encounter rate, on wave-dependent break-up of layers, and on viscosity-dependent pumping. As to waves, it was predicted that the active element of any skimmer would have to remain in the wave surface coincident with the floating layer, otherwise its movement relative to the wave surface would cause turbulence which would break the layer into irrecoverable dispersed droplets.

Over the years 1976-79, the WSL approach on the above basis, was to obtain on loan or by purchase the most promising examples of commercially available equipment classified as follows: weir, adsorption disc, rope or belt devices; vortex-separation devices; and direct air suction units. This classification was selected because the simplest way to separate a floating layer from underlying water is to permit the layer to enter while barring entry to the underlying water by the differentiating lip which denotes a weir, though such devices are usually expected to operate in the absence of waves and may lose efficiency if the layer is too viscous to flow easily. Again, this classification identified discs ropes and belts as potentially having at least some wave tolerance in the preferential adsorption of floating layers. Yet again, even if some wave turbulent droplet creation is unavoidable a vortex device should be able to recreate two continuous phases for subsequent differential pumping. In addition, since WSL was familiar with rheology and pump technology, it entertained hopes to extend pumping capacity to the highest possible viscosities by use of vacuum assisted air conveying. In any case, no matter how selectively efficient the skimmer may be, pollutant must be pumped from skimmer to storage.

The consequence of this approach was the creation of a seagoing collection and recovery system which naturally followed the pollutant on the wave train and which was provided with pumping arrangements capable of transferring highly viscous emulsions from the wave train to the recovery ship. It was called the *Springsweep System* after WSL and its parent ship, the *RV Seaspring*.

- 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.

USA: AMERICAN MARITIME SALVAGE AND CASUALTY RESPONSE

June 27-28, 2012, Miami, USA – Further to earlier announcement of this event in the ISCO Newsletter It has been announced that the Conference Chairman will be Joseph J. Cox, President and CEO, Chamber of Shipping of America. More info

KOREA: FIRST INTERNATIONAL CONFERENCE ON THE SAFETY INVESTIGATION OF MARINE CASUALTY

Seoul, Korea. 13-14 September 2012. Organised by Korean Maritime Safety Tribunal, Ministry of Land, Transport and Maritime Affairs.

A discussion among global experts under the theme "Analysis of cause of collision and implementation of the IMO Casualty Investigation Code"

For more information, contact Mr Hong at hong0610@korea.kr

UK: 3rd MARITIME SALVAGE AND CASUALTY RESPONSE CONFERENCE

- Operational Breakdown of Major 2012 Incidents
- A New Era of 'Social Reporting'
- Distinguishing Your Salvage Company
- Alternative Jobs as Part of a Diverse Portfolio
- Addressing Reward & Environmental Response

London, 5-6 September 2012. More info

UK: CONSTRUCTED WETLANDS FOR INDUSTRY AND COMMERCE MEETING

The aim of this 1-day meeting is to share research and good practice and experience in Scotland and internationally in using constructed wetlands for remediating polluted runoff from industrial and commercial sites. Speakers and the target audience are environmental regulators, designers, industrial users and researchers.

Monday 21st May 2012 in Seminar Room 302, Crew Building, The King's Buildings, West Mains Road, The University of Edinburgh EH9 3JN For more info contact Dr Kate Heal <u>k.heal@ed.ac.uk</u>

Training

USA: CRITICAL INFRASTRUCTURE VULNERABILITY ASSESSMENTS

Security Training Workshop for Government & Corporate Security Managers. Arlington, VA

Jun 25-27, 2012; Oct 22-24, 2012; Jan 15-17, 2013; May 7-9, 2013; Aug 13-15, 2013; Nov 5-7, 2013 More info

USA: KPA ANNOUNCES REVISED EMERGENCY RESPONSE COURSE, ALSO AVAILABLE IN SPANISH

KPA's Online Emergency Response Course satisfies OSHA and EPA requirements and includes information on how to respond to emergencies involving fire & explosion, facility evacuation, spill response, chemical overexposure, and natural disasters. More info

REMEMBER – IF YOU DON'T INFORM ISCO ABOUT YOUR EVENT, TRAINING COURSE, PUBLICATION, ETC
IT WILL NOT BE GIVEN A MENTION IN THE ISCO NEWSLETTER

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