

MEMBERS OF ASA REMOVE FUEL OIL FROM SUBMERGED ALASKA CRUISE SHIP



Tuesday, December 7th, 2010 - The teamwork and expertise of four American Salvage Association (ASA) members culminated in the safe recovery of more than 130,000 gallons of heavy fuel oil from the sunken wreck of the vintage cruise ship Princess Kathleen near Juneau, Alaska.

The 369-foot ship was on her final voyage of the season when she grounded on Point Lena in the dark and stormy early morning hours of September 7, 1952. Less than 10 hours later the ship, with all hands safely ashore, slipped from the rocks and settled to the seafloor. Since her sinking the

Princess Kathleen had been the source for small but steady releases of heavy fuel oil. Continued observations seemed to indicate the releases were increasing in frequency.

In February, 2010 an ASA member was contracted by the U.S. Coast Guard to conduct an ROV survey to assess the situation. With copious quantities of oil observed by the ROV the evaluation moved a manned phase employing divers to complete the assessment of the ship and quantify the remaining fuel oil. The findings of significant quantities of oil remaining in the ship led to the establishment of a Unified Command consisting of the U.S. Coast Guard and the Alaska Dept. of Environmental Conservation who made the decision to recover as much oil as possible from the ship's 14 fuel oil tanks utilizing funds available through the Oil Spill Liability Trust Fund. Read more: <http://www.maritime-executive.com/article/american-salvage-association-members-remove-fuel-oil-submerged-alaska-cruise-ship/>

CANADA NOT READY FOR MAJOR OIL SPILL: COMMISSIONER

Canada is not ready to respond to a major oil spill from a tanker in its waters, its environment commissioner warned on Tuesday. In a damning report, Commissioner of the Environment and Sustainable Development Scott Vaughan said the Canadian Coast Guard's emergency response plan is out of date. As well, he said the Coast Guard has not done a national risk assessment of oil spills from ships since 2000, and does not have a reliable system to track spills.

As a result, it cannot accurately determine the number of spills that occur each year, the size of those spills, their environmental impacts as well as how many required onsite responses, Vaughan said. "I am troubled that the government is not ready to respond to a major spill," he said in a statement.

"We note several areas of concern, from incomplete risk assessments to out-of-date emergency response plans," he said. "These must be addressed to ensure the federal government is ready to respond to any ship-source oil spill occurring in Canadian waters." Read the complete article at: <http://www.google.com/hostednews/afp/article/ALeqM5gP5CT0si13PnFwgcUV4kXgnOajA?docId=CNG.a35172d22b0338261a9ae31edf8cfa03.751>

INDIA: MEASURES BEING TAKEN FOR PREVENTION OF OIL SPILLS

As a measure for prevention of oil spills at the Indian ports, Indian Coast Guard being a nodal agency for National Oil Spill Disaster Contingency Plan has directed all the ports to prepare Local Oil Spill Disaster Contingency Plans. Tier-1 pollution response equipments as per "National Oil Spill Disaster Contingency Plan (NOS-DCP)" have been maintained at many ports. Regular inspection of ships and patrolling of water have been carried out. Tankers above 25 years of age are not allowed to enter the ports. Regular rounds are taken in the ports and strict vigilance is maintained for any pollution. Penalty is also imposed on the concerned party

even if a minor oil spill is noticed. Read more: <http://logisticsweek.com/ocean/2010/12/measures-being-taken-for-prevention-of-oil-spills/>

USA: EPA SCREENS 1,000 CHEMICALS USING TOXCAST

December 3 - The U.S. Environmental Protection Agency's (EPA) ToxCast screening program has entered a new phase, screening 1,000 chemicals for potential toxicity to people and the environment. ToxCast is designed to determine how chemical exposures impact the human body and how the chemicals most likely lead to health effects. When fully implemented, ToxCast will be able to screen thousands of chemicals in fast, cost-effective tests that provide people with relevant information.

"ToxCast integrates revolutionary advances in molecular biology, chemistry and computer science to quickly and cost-effectively screen chemicals," said Dr. Paul Anastas, assistant administrator of EPA's Office of Research and Development. "This ground-breaking approach to chemical toxicity testing allows us to start predicting potential toxicity to human health and the environment instead of just describing the toxic effects that occur after chemical exposure." Read more: <http://www.pollutiononline.com/article.mvc/EPA-Screens-1000-Chemicals-Using-ToxCast-0001?user=2116810&source=nl:29466>

INDIA: MSC CHITRA INCIDENT RAISES HNS SAFETY ISSUES

Report from Oil Spill Response - "On August 7th, the MSC Chitra was involved in a collision with another vessel near Mumbai, the commercial capital of India. As a result of the incident, the MSC Chitra, a Panama flagged cargo vessel, spilled several hundred tons of oil into the sea off Mumbai which threatened to impact environmentally sensitive areas along the coast of Maharashtra.

A team of three response specialists was mobilised by Oil Spill Response Ltd. on the 14th August at the request of the vessel's P&I club to provide technical assistance to ITOPF. The team's objectives were to help in the remediation of the shoreline contaminated by oil from the collision by supervising the clean-up, conducting training sessions and providing technical advice to the Command Centre established by the authorities in Mumbai.

Our efforts were focused on Elephanta Island: a small island in Mumbai Harbour very popular with tourists for its ancient cave temples. The objective was to set up a model response site that could be replicated by local teams at other shorelines impacted by the oil. The responders used imported specialist equipment to assist in the clean-up of a jetty on the island and also supervised the local contractors in carrying out the shoreline clean up.

The Chitra was carrying some 1,200 containers, a number of which entered the waterway when the vessel listed following the collision posing a risk to shipping in the area. However, an additional risk was quickly identified; this came from a container carrying canisters of Aluminum Phosphide which had fallen into the sea. When this chemical compound is exposed to water, a toxic gas, Phosphine, is released. Although the canisters, one litre by volume, were packaged to UN standards and the risk of leakage very low, it was decided not to take any chance of exposure.

To mitigate and manage the risk of exposure to this poisonous gas in the event bottles of the chemical were washed up on the shore, *Oil Spill Response* and ITOPF put in place a HAZMAT safe system of work. This included the establishment of site entry protocols, continuous monitoring for Phosphine gas and the positioning on the island of wash stations and first aid posts, the wearing of appropriate PPE and an evacuation plan in case Phosphine gas was detected. The safety plans were also reviewed and approved by *Oil Spill Response's* senior management.

Daniel Chan, who served in the Incident Commander role during the response, said, "*It was Safety First when we learned about the presence of Aluminum Phosphide canisters. Work at the site was suspended immediately and a thorough Risk Assessment, with the help of experts, was done, reviewed and approved. Work was only resumed after all the precautions and mitigation steps were in place and a briefing for the team and contractors was conducted.*"

Fortunately no traces of either Phosphine gas or canisters of Aluminum Phosphide were found during regular sweeps of the island. Read more: http://www.oilspillresponse.com/newsletter_Dec2010/chitra.html

USA: HELIX READYING GULF OIL SPILL CONTAINMENT SYSTEM

December 8 (Reuters) - Helix Energy Solutions Group Inc is putting finishing touches on a system of vessels and equipment that could be used in a rapid response to a future deepwater oil spill in the [Gulf of Mexico](#), the company said on Wednesday. Helix's system, a competitor to a project led by Exxon Mobil Corp that is still in the planning stages, is built from equipment that was used to siphon oil from the sea floor after BP Plc's Macondo well ruptured on April 20.

Helix is lining up companies to sign on to the project, likely using a retainer-like financial structure, Stephen Powers, director of investor relations at Houston-based Helix, said. "We have had very heavy interest," Powers said, but declined to name any companies at this stage of the negotiations. "We will have a solution up and running here in very short order."

Earlier on Wednesday, John Crum, co-chief operating officer for Apache Corp told investors at the Wells Fargo energy conference that his company would likely take part in Helix' spill containment system.

U.S. regulators, aiming to make drilling in the Gulf of [Mexico](#) safer, are requiring companies to provide worst case oil and gas flow scenarios and also asking companies if they have access to a spill containment system, Crum said.

Helix' "Deepwater Containment System" includes vessels and crews that currently operate in the Gulf and seabed components that are built in advance, the company said.

The Helix system would involve placing a subsea shut-off device, valves and pipes atop a blowout preventer or well production equipment at the seabed. It would contain and channel oil and gas to production and storage vessels at the surface. The system includes two Helix rigs that BP used to produce or burn off about 800,000 barrels of the 4.4 million barrels of oil that spewed from the Macondo well. A tanker to be chartered separately would gather and store oil that could be shipped to shore.

Exxon, Royal Dutch Shell, ConocoPhillips and Chevron Corp formed a non-profit organization in July, called the Marine Well Containment Company, to operate and maintain their \$1 billion spill containment system. That system will consist of specially designed subsea containment equipment connected by manifolds, jumpers and risers to capture vessels that will store and offload any spilled oil. (Reporting by Anna Driver; Additional reporting by Kristen Hays in Houston. More: <http://www.reuters.com/article/idUSN0818292520101208>)

BRAZIL: OIL WORKERS SCRAMBLE TO CLEAN A GIANT POPCORN SPILL



Last week, a boat in the Amazon spilled around 210,000 gallons of popcorn into a major river, making the surface of the water look a bit like the floor of a movie theater. Fortunately, it didn't take long before an oil company's emergency cleanup crew was mobilized to tackle the floating patches of popped kernels with around 30 boats, 6,500 feet of containment boom, and five skimmers as airplanes coordinated the effort overhead. But despite all the action taken to quell the spill, no one involved was ever really worried about the popular snack-food-leak getting out of control -- in fact, the whole incident was staged. Just think of it as a pop quiz of sorts. The popcorn leak was part of an elaborate simulation to test the

readiness of emergency crews in the event of a real environmental disaster. It was coordinated by the oil company Petrobras, along with the Brazilian navy and carried out in the waters of the Rio Negro, a major tributary of the Amazon river. With some oil drilling operations located deep within the Amazon rainforest, rivers provide an important means of transport, and thus are the site of a potential oil spill.

Last week's simulated leak was designed to represent a "plausible scenario" in which a mid-size ferry has run aground, spilling thousands of gallons of oil into the river over the course of several days. "Major emergencies do not happen often, so it is a fantastic opportunity to exercise the team and the technology," Petrobras' regional manager Márcio Derton told the EFE. Unsalted popcorn was chosen to represent the spilled oil for several reasons -- it floats like an oil slick and does no damage to the environment. Plus, if any of the stuff manages to elude the clean-up crews, it makes an ideal snack for fish. In the past ten years, millions of dollars has been invested by the oil company to help protect against oil spills during transport, and such simulations ensure that if they do occur, the team will be better prepared to handle it. So, all the calories burned cleaning up the popcorn spill may one day prove to have been an invaluable exercise - even if they are just empty calories, really.

Read more: <http://www.treehugger.com/files/2010/12/oil-workers-scramble-to-clean-a-giant-popcorn-spill.php> [Thanks to Don Johnston of ISCO Associate Member, DG & Hazmat Group, for passing on this story] Editor: ISCO has received several reports of popcorn being used to simulate oil during response exercises. Apparently it works quite well.

USA, CA, SAN DIEGO, DECEMBER 10 2010. BURNING OF HOME FILLED WITH EXPLOSIVES GOES AS PLANNED



Authorities set fire to a home rented by bomb-making suspect George Jakubec. They determined that burning the house was the safest way to get rid of large quantities of explosives inside.

Authorities on Thursday completed a controlled burn of an Escondido-area home that contained large quantities of bomb-making material. The home's occupant has been charged with bank robbery and bomb-making. Within an hour, most of the flames were gone, and the wood-frame house in a quiet Escondido-area neighborhood was a pile of smoldering ashes. There was no damage to surrounding residences and much of the thick, black

column of smoke towering overhead had dissipated. San Diego County officials were satisfied. Everything had gone as planned. "This is textbook on how to do it," said Sheriff Bill Gore, who gave the order about 10:50 a.m. to start the fire. A special task force of fire personnel, bomb experts and law enforcement officers supervised the controlled burn of the one-story house in the 1900 block of Via Scott, where a large quantity of explosive materials was recently found. Bomb experts had declared that it would be too dangerous to attempt to remove

the materials. After consulting with dozens of public safety agencies, Gore concluded that it would be best to burn down the house, incinerating its contents.

Among the items found inside the home were quantities of hexamethylene triperoxide diamine (HMTD) and pentaerythritol tetranitrate (PETN). The latter was a material used by so-called shoe-bomber Richard Reid and is considered the weapon of choice of Al Qaeda bombers. Read the complete story at: http://www.latimes.com/news/local/la-me-bombers-house-20101210_0.7391762_story
Watch the Video http://www.latimes.com/news/la-mem-escondido-bomb-house-20101209_0.1514271_story
Photo Gallery http://www.latimes.com/news/la-mem-escondido-bomb-house-20101209_0.1514271_story
[Thanks to Don Johnston of ISCO Associate Member, DG & Hazmat Group, for passing on this unusual news report]

TECHNOLOGY

TRIALS WITH BOOM VANE PULLING OIL CONTAINMENT BOOM INTO A RIVER

Video showing deployment and recovery of boom in a river situation. No anchors, no buoys, no boats required ! http://wn.com/boom_vane_pulling_oil_boom_into_the_river Editor: looks like useful kit for rapid response to an oil spill in a river – could be a useful addition to response inventories held, for example, against oil pipeline incidents at river crossings or spills from riverside oil installations.

Readers who are interested in learning more about the Boom Vane System can find more at: <http://www.orc.se/html/downloads.html>

... and several other videos of the Boom Vane system in action can be found at: http://www.google.co.uk/search?q=Boom+vane&hl=en&prmd=iv&source=univ&tbs=vid:1&tbo=u&ei=09wETZq-A8nCswaa0tmrCq&sa=X&oi=video_result_group&ct=title&resnum=3&ved=0CC8QqwQwAg

PEOPLE IN THE NEWS

OIL SPILL RESPONSE APPOINTS USA REPRESENTATIVE



In September, **Oil Spill Response** appointed for the first time a new Regional Representative for the Americas who will support our drive to be in closer proximity to our Members and understand their needs. This position is headed by Kurt Krieter, former Vice President (Global Environmental, Health, Safety and Social Responsibility) at Hess Exploration and Production.

Based locally in Houston, Texas, Kurt will be **Oil Spill Response's** main point of contact with our Members in the region and be responsible for fostering our working relationships with Members, promoting Preparedness Services and providing technical support and representation when needed. Kurt can be contacted at: kurtkrieter@oilspillresponse.com.

Read more at: http://www.oilspillresponse.com/working_news_houstonrep.html

PRODUCTS & SERVICES

No submissions about new products and services received this week.

EVENTS

For more comprehensive information on upcoming events & training courses click [HERE](#) and select "Events"

UK: MARINE POLLUTION 2011

Topical legal issues, US legislative developments and successfully managing pollution incidents Wednesday 16th & Thursday 17th March 2011, Bonhill House, London EC2

[Marine Pollution 2011](#) has been specifically designed to update you on the latest legal, technical and practical issues surrounding oil and chemical incidents resulting in marine pollution. The 2011 seminar will assess lessons learned from recent incidents and discuss future challenges. The Deep Water Horizon oil spill may signal sweeping changes to current US law and regulation. [Marine Pollution 2011](#) will discuss the proposed US legislation in detail and consider technical lessons that have been learned from the spill.

Speakers: Måns Jacobsson, Former Director of the International Oil Pollution Compensation Funds (IOPC Funds) □ Mrs. Lolan Margaretha Eriksson, Ministerial Counsellor, Ministry of Transport & Communications, Finland □ Colin de la Rue, Partner, Ince & Co □ Kiran Khosla, Director of Legal Affairs, International Chamber of Shipping □ Charles B Anderson, Senior Vice President, Skuld North America □ Dave Salt, Operations Director, OSRL □ Alex Hunt, Senior Technical Adviser, ITOFP □ John Maxwell, Marine & Oil Pollution Claims Consultant □ Nigel Carden, Deputy Chairman, Thomas Miller P&I Ltd □ Hugh Shaw, Secretary of State's Representative for Maritime Salvage & Intervention Maritime and Coastguard Agency, (SOSREP) □ Simon Rickaby, Managing Director, Braemar Howells

To save £200 [register by 17th December](#). To do this you can call us on +44 (0)20 7017 5510, email us at: maritimecustserv@informa.com or visit us at www.lloydsmaritimeacademy.com/marinepollution.

USA: EPA AND FAMU CO-SPONSORS WORKSHOP TO DISCUSS OIL SPILL RESEARCH NEEDS

December 9 - The U.S. Environmental Protection Agency (EPA) and Florida A&M University (FAMU) co-sponsored a workshop titled EPA/ORD's Grant Process: How it Works on Thursday, December 9, from 10 a.m. to 3 p.m. in the Coleman Library. Representatives from the British Petroleum (BP) Corporation and the Gulf Alliance of Mexico also participated in this event.

The Deepwater Horizon oil spill in the Gulf of Mexico has impacted the lives, jobs and futures of millions of Gulf Coast residents and endangered the habitats and ecosystems of one of the nation's most valuable resources. Responding to this unprecedented disaster has revealed numerous research needs in the areas of oil spill response, remediation and restoration. The EPA will be separately soliciting competitive research grant applications (in the near future) from eligible organizations, including universities and colleges located in the Gulf Coast Region, to conduct much needed research that addresses the many gaps that have become apparent in dealing with this unprecedented disaster. In addition, BP will solicit research proposals for research projects under its own competitive process.

It is expected that some of the most innovative ideas to restore the Gulf and to protect the area from the effects of future oil spills will come from the local communities impacted by this catastrophe. EPA Administrator Lisa Jackson has made it clear that the plans to restore the Gulf must come from the people of the Gulf and be based on sound science and world-class research. FAMU is committed to promoting scientific research that is both sound academically and responsive to the needs of local communities. Read more: http://www.wctv.tv/news/headlines/EPA_and_FAMU_Co-Sponsors_Workshop_to_Discuss_Oil_Spill_Research_Needs_111628369.html?ref=369

FRANCE: CEDRE INFORMATION DAY

The next Cedre Information Day will be held on 17 March 2011, at INHESJ on the theme "Dispersants: new strategies". For more info go to <http://www.cedre.fr/>

PUBLICATIONS

UK: THE MANAGEMENT OF OILY WASTE – FREE POWERPOINT TO DOWNLOAD

From Scottish Environmental Protection Agency. You can download this and other useful Powerpoint presentations at: <http://www.2dix.com/ppt-2010/marine-oil-pollution-ppt.php>

CORMACK'S COLUMN



In this issue of the ISCO Newsletter we are printing the fifth part of a paper contributed by Dr Douglas Cormack – In last weeks issue the fourth part was erroneously described as the concluding part – Apologies for this mistake.

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.

HARMONISATION OF TECHNOLOGY AND MARINE ENVIRONMENT (PART FIVE)

Articles 1 - 4, noted that the UK R&D programme on fate/effects and prevention/response with respect to marine discharges and accidental releases was based on the knowledge¹ which enabled crude oils, refined products and hazardous/noxious substances (HNS) to be refined, synthesised, transported and used by recipients. However, with respect to the treatment of discharges and accidental releases within and from industrial premises, the R&D team also noted that these were mechanically contained prior to removal by sorption, pumping or excavation/dumping, neutralised with appropriate reagents or degraded by oxidation to carbon dioxide and water; and that such bio-degradation or combustion resumed the recycling of carbon dioxide previously interrupted by formation of the natural gas, oil and coal now used as fuel or as precursors for the synthesis of chemicals now among those classified as HNS (c.f. article 1).

Again, such knowledge of their properties enabled the UK R&D team to classify crude oil components, oil products, and HNS as evaporating floaters, non-evaporating floaters which dissolve or disperse, or sinkers which dissolve or disperse with or without reaction with air and/or water (c.f. article 2). As to evaporation, it was shown² that HNS with boiling-points $\leq 150\text{ C}^\circ$ evaporate totally in 1 hour from fully extended floating layers while oil components with boiling points $\leq 250\text{ C}^\circ$ do so in 5-10 hours despite water-in-oil emulsion formation (c.f. article 3). More generally, the rate of evaporation of volatiles from exposed liquid surfaces can be calculated from known vapour pressure, molecular weight; absolute temperature, mass transfer coefficient, and the universal gas constant.

On this basis, total evaporation of the liquid can only be prevented by attainment of saturated vapour pressure

in the air above it, this being possible only when an enclosed space contains sufficient depth of liquid to reach this pressure before it evaporates totally. Again, while the total quantity available for open-air evaporation is proportional to the layer thickness, vertical/lateral dilution of the vapour with un-contaminated air prevents attainment of saturated vapour pressure, ensures the concentrations immediately above the evaporating surface decrease with increasing height as long as the liquid layer continues to exist, and thereafter ensures these concentrations become more uniform with height and tend to zero throughout the air column which in this context is of unlimited volume.

Thus, we see that the quantity available for evaporation per unit area of surface is proportional to the layer thickness; that while this can be substantial in confined spaces, released volatiles on water surfaces have layer thicknesses dependent on the rate and extent of spreading; that these rates and extents are dependent on viscosity and surface tension; that both of these parameters have low values for volatiles thus ensuring the rapid and extreme thinning of their slicks; that inversely large areas are thus available for evaporation to inversely low air-concentrations which become vanishingly lower as atmospheric dilution proceeds with increased altitude; and that whether evaporation occurs in confined spaces or in the open-air, the resulting air concentrations and their timescales can be calculated on the basis of known evaporation rate, layer thickness, saturated vapour pressure, volume of enclosed air-space, and rates of open-air dilution. (*To be continued*).

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

COMPANY NEWS

TECHNIP AWARDED CONTRACT FOR MARINE WELL CONTAINMENT SYSTEM

[Technip](#) has been awarded a contract by ExxonMobil, on behalf of the Marine Well Containment Company (MWCC), in order to design an emergency response system that will be available to contain oil in the event of a potential underwater well incident in the deepwater Gulf of Mexico. The contract covers Front-End Engineering Design (FEED) of the subsea components (equipments, umbilicals, risers and flowlines) of the Marine Well Containment System. This system, which is scheduled to be completed in the first quarter of 2011, will be capable of being mobilised within 24 hours and fully deployed within weeks. From CEDRE Newsletter http://www.cedre.fr/en/publication/newsletter/2010/185_E.pdf

CORRESPONDENCE

Forum for letters from readers – Send letters to john.mcmurtrie@spillcontrol.org

FORUM: TO BE OR NOT TO BE ? – Letter received from Mark Francis

In issue 259 your editor wrote “It has been suggested that a Forum be created on the ISCO website – a place where readers can directly post messages and exchange news – but this would require a “Moderator”. Does anyone want this and are there any volunteers?”

This prompted a response from ISCO member, Mark Francis, who wrote “I have just seen the article on twitting where you mention needing a moderator. I think with the amount of traffic you probably need more than one as we have to travel as well. I would put myself forward as one if you want to go down this road.”

Editor – “I’ve checked with ISCO’s IT Consultant and it would not be difficult to set up a forum and I’m grateful to Mark for offering to act as “Moderator” (Person who monitors correspondence, ensures that everyone follows simple rules and makes sure that no unsuitable material gets posted on the site). In order to take a decision on setting up a Forum, I’d like to have some reassurance that members really do want to have a forum and will make use of the facility. Please drop me a line at john.mcmurtrie@spillcontrol.org with your thoughts on the matter.

ISCO NOTICES

TECHNICAL GUIDELINES ON SUNKEN OIL ASSESSMENT AND REMOVAL TECHNIQUES

Neil Chapman of the UK Maritime & Coastguard Agency is now leading the Correspondence Group established by the IMO OPRC-HNS Technical Group to develop Operational Guidelines providing practical guidance to assessing and responding to incidents involving sunken oil on the sea floor. ISCO is participating in this task and is focused on gathering information on the practical experience and lessons learned by oil spill response professionals in the spill response community represented by ISCO at IMO.

At the last meeting of the Technical Group it was decided that the primary focus of work should be on negative buoyancy oil lying on the sea floor rather than oil contained in sunken wrecks. In terms of content, the Group agreed that it would also include references to other sources of information and a series of case studies. ISCO has previously appealed to its members and the wider response community and is grateful to those who have provided information. However, the recovery of sunken oil is a developing field of activity and, in order to produce the new IMO Technical Guidelines more information is needed. Within the community we represent

are professionals who have direct experience of solving the problems involved; also manufacturers and other establishments carrying out R&D work to develop new techniques and equipment. ISCO would like to hear from you, so please drop a line to the Secretary at john.mcmurtrie@spillcontrol.org if you think you can help.

Some time ago ISCO developed a template to help in writing up case studies. This is currently under review for possible improvement but can be used. You can download the template from the Downloads Page at http://www.spillcontrol.org/Joomla/index.php?option=com_docman&task=cat_view&gid=20

You can also have a look at contributions received so far from ISCO members and others by going to: http://www.spillcontrol.org/Joomla/index.php?option=com_content&task=view&id=72&Itemid=117

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