



ISCO NEWSLETTER

The Newsletter of the International Spill Response Community
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News

USA: FEDERAL GOVERNMENT ISSUES NEW GUIDELINES FOR OFFSHORE OIL SPILL RESPONSE PLANS



Commercial fisherman from St. Bernard Parish, La., hired by BP lay oil retention booms around New Harbor Island in the Gulf of Mexico on Tuesday, May 4, 2010. (AP Photo/Dave Martin)

August 10 - Federal regulators on Friday gave offshore drilling operators the most specific instructions yet for how the companies should prove they are ready to respond to oil spills.

The guidance came in the form of a "notice to lessees" issued late Friday by the Bureau of Safety and Environmental Enforcement.

The 41-page document outlines standards for the oil spill response plans that are required of companies drilling on the nation's outer continental shelf. The

News (continued)

plans document exactly what resources companies have to respond to spills from their offshore operations, including exploratory drilling as well as producing wells.

With the notice, the bureau is pushing oil and gas companies to adopt “flexible and innovative offshore oil spill response techniques” — even if those approaches or equipment don’t already have a rating for the amount of oil they can recover on any given day.

For instance, while some longstanding oil removal equipment, including skimmers, has been rated for its daily recovery capacity, that isn’t the case with more cutting-edge technology.

“BSEE encourages you to use new technology and response systems that will increase the effectiveness of mechanical recovery tactics,” the bureau said, adding that its review will consider “the complete response strategy” that companies detail.

Current regulations require offshore operators to show plans to support oil spill responses for worst-case scenarios where the spills last 30 days. *Fuel Fix* [Read more](#)

ATLANTIC OCEAN: SALVORS RE-BOARD MSC FLAMINIA AS MANAGERS HUNT FOR SAFE HAVEN



August 8 - Firefighters have re-boarded the *MSC Flaminia* after a week-long absence from the stricken container ship which was hit by an explosion in the middle of the Atlantic Ocean more than three weeks ago.

The stricken vessel (pictured three weeks ago) had previously been towed to within 100 nautical miles of the UK mainland but by 31 July, amid worsening weather conditions, firefighters were unable to board and the ship was towed back out to sea.

According to the ship’s managers, Germany-based Reederei NSB, the *MSC Flaminia* is currently 360 miles off-shore.

In its latest statement, published Monday, the company said: “Thanks to improving weather conditions, a team of firefighting experts is able to board *MSC Flaminia* and continue the salvaging efforts.

“The current measures aim at inspecting areas which had not been accessible so far. Also, data is being collected to calculate and assess the stability of the vessel.

The fire is believed to have originated in cargo hold 4 but salvors have said that there is no longer any fire in holds 4, 5 or 6 and that smoke from hold 7, adjacent to the superstructure, has ‘declined significantly’. *Lloyds Loading List* [Read more](#)
[Thanks to Don Johnson of ISCO Industry Partner, DG & Hazmat Group]

HONG KONG, CHINA, CLEANS UP MASSIVE PLASTIC SPILL

Volunteers clean up plastic pellets on a bank along Hong Kong’s Lamma Island on August 5, 2012

August 6 - A snowy winter scene isn’t exactly standard summer fare, but that’s the sight that greeted beach-goers in Hong Kong over the weekend.

Millions of tiny white plastic pellets have been washing up on the city’s shores for the past two weeks, since the city was [struck](#) by the worst typhoon in over a decade last month. The storm knocked six containers containing 150 tons of plastic pellets off a ship just south of Hong Kong, sending a tide of white confetti pouring into the waters, which swiftly began washing up on Hong Kong’s shores.

Armed with gloves, pails and black garbage bags, this weekend over 1,000 volunteers gathered in Lamma Island—a popular residential community among expatriates—to help collect the white drifts. Another 200 volunteers assembled in Discovery Bay on Lantau Island to aid the effort there. By Sunday night, the government said that it has already collected half of the plastic pellets that had been spilled, including 50 tons of pellets in sacks that were scooped up from the water. The government said the clean-up effort is still continuing. *Wall Street Journal* [Read more](#)



USA: RAIL CARS EXPLODE, BURN AFTER DERAILMENT IN EASTERN MONTANA



August 5 - A train west of Plevna has derailed and eight cars carrying alcohol are on fire.

Burlington Northern Santa Fe reports that 15 rail cars went off track around 2:45 p.m. Sunday. Fourteen of the cars were carrying denatured alcohol, which is used as a fuel additive. The fifteenth car was carrying cardboard. No injuries have been reported. Highway 12, which is near the derailment, has been blocked off at both ends to secure the accident scene.

“Eight cars are on fire. It was a chain reaction of one car catching fire and another car catching fire as well,” said Gus Melonas, BNSF spokesman.

The 106-car train from Aberdeen, S.D. was on a single lane of track that doesn’t get a lot of use, Melonas said. Only 63 of the cars involved were loaded with freight. *Missoulian* [Read more](#)

US STARTS LANDMARK AGENT ORANGE CLEANUP IN VIETNAM

In this photo taken Aug. 7, 2012, Vo Duoc sits inside his family’s home in Danang, Vietnam. Duoc said he and 11 other members of his family were exposed to dioxin while ingesting contaminated water, fish and vegetables near a former U.S. military base, now Danang airport. On Thursday, Aug. 9, 2012 the U.S. for the first time will begin cleaning up leftover dioxin that was stored at the former military base. (AP Photo/Maika Elan)



August 8 - Vo Duoc fights back tears while sharing the news that broke his heart: A few days ago he received test results confirming he and 11 family members have elevated levels of dioxin lingering in their blood.

The family lives in a two-story house near a former U.S. military base in Danang where the defoliant Agent Orange was stored during the Vietnam War, which ended nearly four decades ago. Duoc, 58, sells steel for a living and has diabetes, while his wife battles breast cancer and their daughter has remained childless after suffering repeated miscarriages. For years, Duoc thought the ailments were unrelated, but after seeing the blood tests he now suspects his family unwittingly ingested dioxin from Agent Orange-contaminated fish, vegetables and well water.

Dioxin, a persistent chemical linked to cancer, birth defects and other disabilities, has seeped into Vietnam’s soils and watersheds, creating a lasting war legacy that remains a thorny issue between the former foes. Washington has been slow to respond, but on Thursday the U.S. for the first time will begin cleaning up dioxin from Agent Orange that was stored at the former military base, now part of Danang’s airport. *Boston.com* [Read more](#)

USA: FEDERAL MAPPING TOOL THAT AIDED FIRST RESPONDERS IN GULF SPILL EXPANDED TO ARCTIC

August 6 - A new federal interactive online mapping tool used by emergency responders during the Deepwater Horizon oil spill has been expanded to include the Arctic, and will help address numerous challenges in the Arctic posed by increasing ship traffic and proposed energy development.

NOAA and the Department of the Interior’s **Bureau of Safety and Environmental Enforcement (BSEE)**, called the Environmental Response Management Application, known as ERMA®, an important step forward for the Arctic region.

“The addition of Arctic ERMA will be a tremendous benefit to responders in this rapidly developing region,” said Jane Lubchenco, under secretary of commerce for oceans and atmosphere and NOAA administrator. “This scientific tool could provide essential information in responding to potential oil spills and pollution releases in the Arctic.” *The Maritime Executive* [Read more](#)

NIGERIA: CLEAN-UP TO BEGIN ?

After Ogoni declare autonomy, Nigerian government addresses oil spills

August 9 - After the Ogoni declared autonomy in protest of failure of the Nigerian government to implement recommendations of a UNEP report on oil spills in Ogoniland, the Nigerian government claims it has started a clean up in the area as the report recommended.

[Business Day Online](#) reports that the Group Managing Director of the Nigerian National Petroleum Corporation (NNPC) Andrew Yakubu, said at an international oil and gas conference in Lagos Monday, that the NNPC and the Shell Production and Development Company (SPDC) plead with the Ogoni to be patient as the government is taking steps to addresses the issue of oil spill in Ogoniland. *Digital Journal* [Read more](#)

Federal Govt Begins Clean-up of Ogoniland



Minister of Petroleum Resources, Mrs. Diezani Alison-Madueke

August 11 - After suffering delays caused by the January protests over the fuel subsidy removal, the Federal Government Monday announced that it has commenced the implementation of the United Nations Environment Programme (UNEP) report on the clean-up of Ogoniland, damaged by years of oil exploration.

Minister of Petroleum Resources, Mrs. Diezani Alison-Madueke, made this known at a press briefing held by the Minister of Environment, Hadiza Mailafiya, who led a team to present her ministry's policy thrust for the 2013 budget and the implementation of the 2012 budget to President Goodluck Jonathan.

In a swift reaction, the United Nations welcomed the decision to clean up Ogoniland, a year after UNEP

submitted a scientific assessment of oil pollution in the community to the government.

The Movement for the Survival of Ogoni People (MOSOP) had last week declared statehood in the environmentally devastated area of Rivers State.

MOSOP President, Dr. Goodluck Diigbo, said the Ogoni people would be more secure by attaining the status of self-governance.

However, last week, Jonathan had approved the setting up of a Hydro-Carbon Pollution Restoration Project (HYPREP) to speed up the government's commitment to implementing the UNEP assessment report on the spill disaster in Ogoniland. *This Day Live* [Read more](#)

CANADA: TRANS MOUNTAIN: THE OTHER PACIFIC PIPELINE



The Aqualegend crude oil tanker is escorted by tugboats as it arrives at Kinder Morgan's Westridge marine terminal in Burnaby, B.C., in July. Kinder Morgan plans to expand its Trans Mountain pipeline and ship much more crude from Vancouver. (Rafal Gerszak/For The Globe and Mail)

August 8 - It is a sunny Sunday and Vancouver is doing what it does best: looking pretty and post-industrial. Morning lights up the downtown's glass horizon. A half-dozen scooters rip down the road in a platoon. Cyclists swish past Zipcar lots, kayakers and stand-up paddle surfers ply the waters.

But just a few kilometres away, an oil tanker is preparing to raise anchor and slide into port. Soon, it will open its holds, with a total capacity of 650,000-barrels, to a flush of Alberta oil. After 30 hours of pumping, it will slip away to Long Beach, Calif. Oil

tankers are, for now, relatively rare here. A tanker sails into the Vancouver harbour about once a week, docking at the Kinder Morgan-owned Westridge Terminal to accept Alberta crude flowing across the Rockies in the Trans Mountain pipeline. *The Globe and Mail* [Read more](#)

INDONESIA TO RATIFY SEVERAL IMO INSTRUMENTS

August 6 - The Republic of Indonesia has formally notified IMO of its intention to ratify the International Convention for the Prevention of Pollution from Ships (MARPOL Convention), Annexes III, IV, V and VI, and the International Convention on Maritime Search and Rescue (SAR).

Mr. E.E. Mangindaan, Minister for Transportation of the Republic of Indonesia, told IMO Secretary-General Mr. Koji Sekimizu of the intention to ratify on 3 August 2012, during the Secretary-General's visit to Indonesia.

The Secretary-General expressed his strong appreciation to the Minister for his efforts to have these two important Conventions ratified and encouraged the Minister to accelerate efforts towards ratification of other IMO conventions, including the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, and the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009. *The Maritime Executive* [Read more](#)

U.S. REGULATORS GET TOUGHER ON OIL PIPELINES

August 8 - Conditions placed on Enbridge Inc to restart an oil pipeline highlight the tougher stance U.S. regulators are taking after a series of high-profile spills.

The Pipeline and Hazardous Materials Safety Administration on Monday gave Enbridge the greenlight for resumption of the 318,000-barrel-per-day Line 14, which spilled 1,200 barrels of oil on a rural Wisconsin field in late July, after the agency said the Canadian firm agreed to a more stringent set of safety requirements.

The company plans to restart the line on Tuesday.

The U.S. regulatory agency is in the spotlight after two big accidents in 2010 - BP Plc's ([B.P.L](#)) Macondo disaster in the Gulf of Mexico and another Enbridge leak of 20,000 barrels into Michigan's Kalamazoo River in one of the biggest spills onshore. *Reuters* [Read more](#)

USA: COAST GUARD PREPARES FOR AN EXPANDED ROLE IN ARCTIC



August 7 - The Coast Guard is ready for expanded activity in Arctic waters, including petroleum exploration and drilling, even though the nearest Coast Guard base is more than 750 miles southwest of the Bering Strait on Kodiak Island, Commandant Robert Papp told a U.S. Senate subcommittee Monday.

"For right now, we are well prepared, because like we always do traditionally, we have multimission assets that we can deploy, that are very capable, and that are sufficient for the level of human activity that's going on this summer and perhaps for the next three or four summers," Papp told the Homeland Security Appropriations Subcommittee.

U.S. Sen. Mary Landrieu, D-Louisiana, conducted the hearing in a hangar at Air Station Kodiak at the request of Sen. Lisa Murkowski, R-Alaska. The subcommittee discussed what other resources the Coast Guard will need as melting summer sea ice opens more of the Arctic to cargo vessels, ecotourism and possibly commercial fishing. Landrieu said climate models indicate the Arctic Ocean could be free of summer. *Anchorage Daily News* [Read more](#)

USA: EPA LAUNCHES CHEMICAL CLEANUP IN WEST MELBOURNE

July 30 - The soles of his shoes melted when a general contractor happened upon thousands of chemical containers stashed inside trailers off Dike Road in 2010.

There were so many, state investigators had planned to bring in the U.S. Environmental Protection Agency to help.

But before EPA could take action, the trailers mysteriously disappeared.

Now, state investigators say some of the same chemical-filled trailers have become part of an estimated \$110,000 federal cleanup this month just down the road, at 1080 S. John Rodes Blvd. in West Melbourne.

U.S. Department of Defense officials are investigating whether some of the chemicals came from Navy or other military facilities and are trying to figure out who should be responsible for the cleanup.



Some 3,500 containers of hazardous substances sat unsecured in the seven trailers and two box trucks on the north side of the John Rodes property for an unknown period of time.

Flammable liquids, strong acids and bases seeped underneath the trailers, near a drainage canal and within 100 yards of residential areas Sheridan Lakes to the south and Greenwood Village to the east. Interstate 95 runs about 500 yards to the west.

U.S. Environmental Protection Agency officials secured the site earlier this month. The agency is in talks with the military to determine when the chemicals can be hauled to a hazardous waste landfill out of state. It's uncertain whether any chemicals seeped into the groundwater

Florida Today [Read more](#) [Thanks to Don Johnson of ISCO Industrial Partner, DG & Hazmat Group]

INDIA: COAST GUARD TO SOON GET POLLUTION CONTROL VESSEL

August 12 - In an attempt to mitigate oil spill and control sea pollution, a pollution control vessel (PCV) will soon join the Eastern fleet of Indian Coast Guard (ICG).

The giant ship, Samudra Paheredar weighing 4,000 tonnes and 95 metres long, will reach Chennai on August 21, said Inspector general Satya Prakash Sharma, regional commander, ICG Region (East), on the sidelines of the National Maritime Foundation and FICCI's brainstorming session on coastal security here on Friday. Built in Surat, the Samudra Paheredar is the second PCV to be commissioned in India. The first-of-its-kind vessel in South East Asia, it was commissioned in October 2010 and had been stationed in Mumbai.

"The PCV will address the critical requirement of capacity building in the area of pollution response. The ship is equipped with the most advanced equipment for mitigating oil spills..." said Mr Sharma. *The Asian Age* [Read more](#)

USA: MARAD REVISITS OPA 90

August 8 - OBJECTIVE: This project will study the safety, economic and environmental issues of vessels to be constructed with double hulls.

BACKGROUND: Following the Exxon Valdez disaster, the passing of the Oil Pollution Act of 1990 (OPA 90) led to the requirement to replace single hull petroleum tankers with double hull tank vessels sailing in U.S. waters. This requirement was soon adopted by the International Maritime Organization (IMO) and became a worldwide regulation. This means that, today, tank vessels worldwide are carrying thousands of extra tons of steel in order to meet the double hull requirements.

Though these double hulls reduce the threat of oil pollution as a result of grounding, they significantly increase the amount of energy needed to propel a vessel and increase the amount of air pollution into the atmosphere. As a result, the maritime industry's carbon footprint and criteria pollutant emissions are increased.

[Study on the Safety, Economic and, Environmental Issues of Double Hulls]2[h]Solicitation Number: EconStudy08062012
Agency: Department of Transportation Office: Maritime Administration (MARAD) *gCaptain* [Read more](#)

CANADA: BITUMEN FLOATS IN OCEAN, PIPELINE FIRM INSISTS

July 30 - Kinder Morgan officials are denying that heavy oil sands bitumen – already carried by tanker through Vancouver harbour – would sink if it ever spilled in the ocean.

Grilled by Metro Vancouver politicians Thursday, company reps called it misinformation in the media that diluted bitumen sinks in water, making a marine spill cleanup virtually impossible.

"The diluted bitumen and other products don't sink," said Mike Davis, Kinder Morgan Canada's director of marine development and engineering. "They're less dense than sea water. They float."

He added any heavy crude oil could eventually sink if it "weathers" on the surface for too long, but added there's no indication that would happen if a bitumen spill was boomed and cleaned within a reasonable period of time. *Northshore Outlook* [Read more](#) [Thanks to Don Johnson of ISCO Industry Partner, DG & Hazmat Group]

PANAMA: UNDERWATER ARCHAEOLOGISTS DIG DEEP FOR ICONIC PRIVATEER'S LOST FLEET

Team Recovers Sword, Chests and Wooden Barrels from 17th Century Shipwreck off the Coast of Panama Where Morgan Lost Five Ships in 1671

August 6 - For the third year in a row, with the help of the Captain Morgan brand, a team of leading U.S. archaeologists returned to the mouth of the Chagres River in Panama in search of real-life buccaneer Captain Henry Morgan's lost fleet.

"Morgan was one of the most infamous privateers of all time, so for me, this is a chance to use archaeological research to bridge the gap between science and pop culture. Most people associate Captain Morgan with spiced rum, but he was also an iconic historical figure who accomplished incredible feats throughout the Caribbean," said Frederick "Fritz" H. Hanselmann, underwater archaeologist and Research Faculty with the River Systems Institute and the Center for Archaeological Studies at Texas State University who has been leading the team in an effort to locate, excavate and preserve the remains of Morgan's lost ships.



"Locating his lost ships and being able to properly preserve and share them with the public is our ultimate goal with this project. We're really close – and at the end of the day, his ships are down there and we're going to find them." *The Maritime Executive* [Read more](#)

People in the news

OBITUARY: DREXEL PINDER

Florida-based international response organization mourns the passing of Drexel Pinder

August 10 - Fort Lauderdale based Clean Caribbean & Americas (CCA), an international oil spill preparedness & response organization whose 46 members include Statoil South Riding Point in Freeport, was rocked by the news of the untimely passing of a long-time director, and former Chairman, Drexel Pinder of Statoil South Riding Point. Mr. Pinder was South Riding Point Holding Limited's/Statoil South Riding Point's representative to CCA since 1992. He served as a director, and was elected Vice Chairman in 1996, and was Chairman of the organization from 1997 to 1998. Subsequently he served as a director up until 2011. CCA operations extend throughout the Caribbean, Latin America and North America, and Mr. Pinder was well-known to a large number of oil company representatives who have come and gone over the years through CCA's management structure. Mr. Pinder was one of the longest serving directors in the history of CCA, and is fondly remembered as being a soft-spoken, pleasant, and engaging personality, and above all, a true Bahamian gentleman.

Paul Schuler, President and CEO of CCA since 1991, commented that, "Drexel was more than just a representative and director with us over 20 years, he developed a close personal relationship with our staff, and was considered very much an extended part of the family. Not long ago, during a business visit to Statoil South Riding Point, Drexel was kind enough to organize a tour and boat ride for my young daughters who were accompanying me. I remember Drexel frequently talking with immense pride about his own children who were studying abroad. I always thought Drexel was projecting a little of his love and kindness for his children to my own during that visit." *The Freeport News* [Read more](#)

ISCO News

INTERNATIONAL RESPONSE RESOURCE INVENTORY - REMINDER

Are you a response contractor, equipment manufacturer or spill response expert ?

If you would like to be kept up-to-speed on this IMO OPRC-HNS Technical Group initiative please advise ISCO the Secretary john.mcmurtrie@spillcontrol.org

ISCO is supporting this project introduced by the delegation of the US and has formed a group amongst its Corporate Members to monitor progress and help ensure that the international spill response community has an input into this important new development that is intended to improve resource availability during major spill or HNS events. For more information, log into the ISCO website and go to the ISCO – "What's New" page.

IMPROVING CO-ORDINATION BETWEEN WATER AND EMERGENCY SERVICES SECTORS

Received from Margaret Gerardin, US EPA Emergency Management, these two news items relate to US situations and experience but contain interesting ideas and examples that will also be of interest to readers in other countries.

1) New Document on Coordination of the Water Sector and Emergency Services Sectors: An Important Step to Better Response

This document describes the relationship between the water sector and emergency services sector. It also describes how the relationship is mutually beneficial and it provides examples on how to improve coordination between water utilities and local emergency management agencies. A checklist is included that recommends a series of actions for utilities to improve their coordination with local emergency management agencies. These activities include attending or planning tabletop exercises together, sharing and coordinating response plans, and getting to know each other in advance of an emergency. The final page of the document can be used by the utility to provide important information to the local emergency management agency. The page may provide the utility's contact information, the reason(s) why the water sector is important to emergency management agencies, and how water services support emergency management agencies during a response.

The document can be accessed at <http://water.epa.gov/infrastructure/watersecurity/emmerplan/upload/epa817k12001.pdf>

2) Water Sector Mutual Aid and Assistance Networks

In order to facilitate utilities helping utilities after an incident, the water sector has established the Water and Wastewater Agency Response Networks (WARN). Drinking water and wastewater utilities in 47 states and the National Capital Region have established an intrastate WARN agreement. Although the number of members and capabilities of each program vary, WARNs have been successfully used in over 25 major incidents ranging from water contamination and earthquakes, to droughts, floods, hurricanes, wildfires, and winter weather events. Having the ability to access specialized resources from neighboring utilities ensures that utilities are able to return to normal operations more quickly. It also helps to avoid administrative burden or time gaps that may occur when mutual aid agreements are not in place at the time of an incident.

Two WARN videos have been developed to improve water sector awareness of the WARN initiative, attract new members to existing WARNs, and promote the benefits of WARN when conducting tabletop exercises. The first video, [?Background on the WARN Initiative?](#), is targeted to non-WARN members and response partners who are unfamiliar with WARN. The video describes how WARN programs were started, the current status of WARNs across the US, and the benefits of joining a WARN. The second video, [?WARN Tabletop Exercises?](#), targets existing WARN members and uses footage from actual tabletop exercises. The video describes the benefits of tabletop exercises and encourages participation. It also discusses key issues and lessons learned from previous exercises,

Coordination between water utilities and emergency management agencies is essential during a response, and WARNs typically have emergency management agencies as partners. To learn more about WARN, please visit <http://www.epa.gov/mutualaid> or to find the WARN in your state, please visit <http://nationalwarn.org>.

Science and technology

FIRST RED MUD REMEDIATION TREATMENT DEVELOPED



Red mud remediation process; Credit: © Orbite Aluminae On the left, untreated red mud. On the right, sample after treatment.

August 6 - A Canadian clean technology company has developed the first commercial treatment for red mud - the biggest problem in the aluminium industry.

Less than two years after [Hungary's red mud spill](#) - one of the worst European industrial accidents - Orbite Aluminae Inc. says its patented technology is the only environmentally-sustainable and commercially viable alternative that manages and eliminates the toxic residues.

Statistics from the International Committee for Study of Bauxite, Alumina & Aluminium show 100 million tons of red mud was produced by [aluminium](#) producers last year, but only one-twentieth was reused. The remainder was stored in reservoirs and pools.

The risks of such storage were illustrated by the Hungarian disaster in October 2010, where a retaining dyke split. Other spills have occurred in Brazil, Canada, China and India.

Under the Orbite treatment, red mud is converted into an inert and dry residue, which is less than one-tenth of the volume of the original. The technology eliminates the environmental problems linked with the established Bayer production process and

opposition some countries have shown to new mining and production facilities.

Science and technology (continued)

The conventional way of extracting alumina from bauxite was first developed by an Austrian chemist Bayer in 1888. Orbite's system uses less energy and pollution, with no corrosive by-products.

The Orbite technology makes it possible to use an ecologically sound method to recapture valuable commercial products including rare metal oxides, aluminium oxide (alumina) that makes up a quarter of red mud, magnesium oxide and pure hematite that provides the red colouring of the residue. *Earth Times* [Read more](#)

Cormack's Column



In this issue of the ISCO Newsletter we are printing No. 89 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 89: KNOWLEDGE OF MECHANICAL RECOVERY

From the separate tension-line boom trials and Renvac air-conveyor investigations reviewed in earlier articles, WSL developed the single-ship Springsweep System, by replacing the initial boom deployment from the fore-castle crane-jib of *RV Seaspring* with deployment from an A-Frame and jib mountable on the side-deck of tank-ships of opportunity and by replacing the 10mm Spate pump with the Renvac air conveyor system and floating hose-end/weir system deployed in the oil trap of the tension line boom to take advantage of the so-called Blomberg Circus.

The Mark I A-frame comprised two 10 metre lengths of 150mm square-section mild steel of 10mm wall thickness welded together at their tops, spread 2.3 metres apart at their feet and hinged to a 2.3m x 1 m rectangular base-frame constructed from 100mm x 100mm hollow section lengths of 10mm wall thickness, the corners of which were attached by chains to deck-mounted eye-bolts. A hand-operated 1000kg capacity winch was attached to one of the A-frame legs 1metre above the base to raise and lower the 15metre jib which was hinged at the mid-point of a cross member between the A-frame legs 2 metres above the base. The jib was constructed from two lengths of 200mm x 150mm hollow section steel of 8mm wall thickness with the 200mm dimension vertical, the inner being 10metres long with a universal hinge to the A-frame cross-member at the inner end and with a joint at the outer end to take its 5 metre extension. Both A-frame and Jib were equipped with all necessary stabilising stays, boom towing/controlling lines, jib topping-lift and handling-lines for the pollutant transfer hose.

Other jib/boom arrangements are possible. A floating jib hinged at the inner end to the ship's side with the outer end supported by a float and strut, would dispense with the A-frame, while use of a paravane would dispense with both A-frame and Jib. However, we know that $0.18 \text{ m}^3\text{h}^{-1}$ is the encounter rate per metre swath width, per 0.1mm layer thickness, per knot of forward speed; that it is only $3 \text{ m}^3\text{h}^{-1}$ for a single ship-mounted boom deployment of 15 metre swath width; that 80% water content of the ensuing emulsion increases this to $12 \text{ m}^3\text{h}^{-1}$; that windrow formation concentrates the pollutant by at least another factor of two, to $24 \text{ m}^3\text{h}^{-1}$ by removing it from the inter-windrow spaces; and that windrows themselves are roughly commensurate with the 15metre sweeping width of single ship operation.

However, while this may be disappointing and more so when we recall that 24m^3 of emulsion with 80% water content contains only 6m^3 of oil, we know that multi-ship operations in sweeping both windrows and inter-windrows, encounter the average thickness and have to average this over two towing and one recovery ship; and that single-ship operations are thus likely to be the more cost-effective. Again, we know that the single-ship option facilitates observation of pollutant escape beneath the boom and the control of ship speed to avoid it; and that the Blomberg Circus effect within the pollutant trap may increase encounter rate by a factor of three, to $72 \text{ m}^3\text{h}^{-1}$ of emulsion or to $18\text{m}^3\text{h}^{-1}$ of oil. Again, deployment from both sides of a single ship would give 144 and $36\text{m}^3\text{h}^{-1}$ respectively. In any case, in a sea trial of the final Springsweep System, WSL recycled through its oil trap a 12,000cSt emulsion at the very satisfactory rate of $60\text{m}^3\text{h}^{-1}$.

However, we abandoned an intended trial with a pollutant viscosity of 20,000-30,000cSt at 15°C at the *Katina Incident* when we found that the layer thickness had been locally increased by funnelling through an open-apex V-boom system ahead of the Sweeping Arms, that when *RV Seaspring* rolled gently in such a layer, it stuck to the rising and lowering side to form an upward and downward convex surface of about 5cm in length, and that the absence of water-breakthrough in the latter case indicated a layer thickness of at least 5cm and the danger of a blocked system and an unproductive cleaning task.

Nonetheless, with one Springsweep System onboard and two in storage for deployment on ships of opportunity, *RV Seaspring* doubled as the UK lead responder with her pollutant tank capacity of 600m^3 and scope for lighter alternatives to the initial A-frame and jib designs as user-experience might dictate. Alas, the project was abandoned before its advantages could be fully demonstrated

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.

Publications

US EPA: TECHNOLOGY INNOVATION NEWS SURVEY

The June 1-30, 2012 *Technology Innovation News Survey* has been posted to the CLU-IN web site. The *Survey* contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. The latest survey is available at: <http://www.clu-in.org/products/tins/>

Training

NAMEPA RELEASES MARPOL/MARINE SCIENCE TRAINING RESOURCES

August 8 - The North American Marine Environment Protection Association Founding Chairman, Clay Maitland, announced the release of its newly developed MARPOL/Marine Science training resources. Funded by a grant from the National Fish and Wildlife Foundation, this program is considered to be the first time that the International Maritime Organization's Marine Pollution regulations (MARPOL) have been partnered with marine science. It will be distributed throughout North America by members of NAMMA (North American Maritime Ministry Association) beginning with Massachusetts and North Carolina.

"We believe that this program underscores to the seafarers not only the 'What' of MARPOL regulations, but also the 'Why'" stated Maitland. "While shipping, ship management and manning companies have their set of educational resources on the topic, it is important that this instruction be reinforced as often as possible so to reduce the likelihood of pollution incidents." *The Maritime Executive* [Read more](#)

Events

MARITIME INCIDENT INVESTIGATION

3 – 4 September 2012 | Grand Copthorne Waterfront Hotel, Singapore
6 – 7 September 2012 | InterContinental Grand Stanford Hotel, Hong Kong, China.

[Maritime Incident Investigation](#) is a practical 2-day course that will provide you with a better understanding of **managing investigation process, developing incident investigation system**, and learning how **effective analysis of maritime accidents** are keys to any successful investigation, ultimately reducing accidents and incidents in the shipping industry. [More info](#)

UK: SCOTTISH CONTAMINATED LAND FORUM CONFERENCE 2012

Glasgow, 18 September 2012 - The 3rd Annual SCLF Conference aims to facilitate knowledge transfer in the land contamination sector. The conference will include a wide range of presentations exhibitors and posters from industry and academia.

Presenters include: Michael Poland, Atkins; Dr Alison Searl, IOM; Dr Russell Thomas, Parsons Brinkerhoff; James Baldock, ERM; Donald Payne, Fife Council; Peter Livingstone, Eadha Enterprises

Delegate places are £50 and can be booked via bookings@sclf.co.uk [Thanks to ISCO Industry Partner, Scottish Environmental Technology Network] [More info](#)

UK: OPEN MEETING ON RISK AND INSURANCE

London, 26 September 2012 - Experts from lawyers, Watson, Farley & Williams; specialist insurance brokers and risk managers, JLT Specialty and consulting forensic engineers, RTI Forensics will look to address the wide range of issues currently facing the shipping and ports industry in terms of risk mitigation and its effect on insurance premiums. [More info](#)

Company news

BIOREMEDIATION CONSULTING INC. (BCI) ANNOUNCES DEVELOPMENT OF THE FIRST COMMERCIAL CULTURE TO DEGRADE HIGHLY CHLORINATED POLYCHLORINATED BIPHENYLS

[Bioremediation](#) Consulting Inc., Watertown MA announced the completion of a research project funded by a Small Business Innovation Research (SBIR) grant from the National Science Foundation to develop a bacterial culture that biodegrades Polychlorinated Biphenyls (PCBs). Under the lead of its senior scientist, Dr. Margaret Findlay, a team of microbiologists at [Bioremediation](#) Consulting succeeded in developing a PCB-degrading bacterial culture which extensively dechlorinated [Aroclor](#) 1260 and 1254, two persistent PCB mixtures, in 18 weeks. BCI submitted its final report on June 12th showing the successful

Company news (continued)

results of this project.

BCI presented its research findings on [dechlorination](#) of [PCBs](#) at the Battelle Conference - 'Remediation of Chlorinated and Recalcitrant Compounds', on May 23, 2012 in Monterey, California. The topic of BCI's research was 'PCB [Biodegradation](#) by a [Dehalococcoides](#) (Dhc) Culture Grown on Trichlorobenzenes' [Read more](#)

QUAN SEES HUGE MARKET POTENTIAL IN PIAP'S OIL SPILL CLEANUP BOTS

Emerging robotics company Quantum International Corp. (OTCBB: QUAN) sees major market potential in a new oil-spill cleanup robot designed by Poland's Industrial Research Institute for Automation and Measurements (PIAP) (see also Quantum International Corp.).

The mosquito-like robots are designed to swarm offshore oil spills, land on a spill, and vacuum up the oil into a floating, detachable tank that can be retrieved by emergency response vessels. It's a concept that Quantum believes could have incredible implications for the drilling and transport of petroleum in the trillion-dollar global energy industry. [More info](#)

ONLINE CHEMICAL PROTECTION CLOTHING AND HAZARDS DATABASE



August 10 - Chemicals-industry personnel, emergency response and hazardous-waste workers, as well as the general industry can use chemicals giant DuPont's online tool to determine what type of protective clothing and gear to use for different chemical hazards, says DuPont Protection Technologies business manager Ajen Maharaj.

The company's Tychem protective clothing provides a durable barrier for 330 different chemicals and mixtures. This enables emergency-response workers and waste-spill containment crews to don these garments and begin containment knowing that the garments provide protection to a wide range of chemicals.

However, knowledge of how protective gear will react to different chemicals and of international best practices when dealing with different chemicals or spills is critical, not only in the effective and efficient handling of spills or chemicals but also in preventing harm to the environment, says Tychem inventor and DuPont expert consultant Dr James Zeigler.

"This is why DuPont is deeply involved with the local industry and end-users to determine how we can meet their needs and ensure we know the industry, as well as engage in issues about these needs by

giving expert advice on international best practice," he says. *Engineering News* [Read more](#)

ABANAKI'S COOLANT REFRESHER PROVES TO BE COST-EFFECTIVE SOLUTION TO OIL LADEN COOLANT

[Abanaki Corporation](#)®, recently had one of its coolant products put to the test. A manufacturing company located in the UK recently chose to do a trial run with the [Cooler](#)™. An employee of the company had been informed of the benefits of using the Cooler for coolant cleaning purposes. The Cooler removes tramp and hard to pick up "grey" oils from machine tool coolant sumps, helping to eliminate "Monday morning" coolant odor. The Cooler coolant refresher eliminates the need for oil skimmers and manual labor involved in cleaning and recycling coolant.

The facility decided to use the Cooler on one of its machines that desperately needed its coolant cleaned. The approach was, if the Cooler could clean this particular machine's coolant, it could clean anything. After running for roughly six consecutive weeks, the company claims the oil laden coolant in this machine was almost brand new. [More info](#)

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