



ISCO NEWSLETTER

The Newsletter of the International Spill Response Community
Issue 274, 14 March 2011

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News

JAPAN: EARTHQUAKE AND TSUNAMI – UN AND INTERNATIONAL RELIEF EFFORTS UNDERWAY



The United Nations was sending nine experts to Japan on Saturday, as part of the international efforts to help local relief teams, following a devastating earthquake.

UN officials noted that two of the experts were specialists on the environment, as concern mounts for a nuclear power plant damaged as a result of the quake. The experts are part of the UN Disaster Assessment and Coordination system, a rapid response network set up to aid in the worst cases.

"We stand ready to provide whatever Japan asks for, or put them in contact with bilateral partners," said Elisabeth Byrs at the UN Office for the Coordination of Humanitarian Affairs in Geneva.

Dozens of international disaster relief teams remained on standby, in the event the Japanese government requests that they intervene.

Red Cross and UN officials have stressed they have regional hubs in Asia from which aid can be deployed quickly.

News (continued)

Switzerland, with strong links to Japan, said it was asked by Tokyo to send search-and-rescue teams, and 25 Swiss specialists and nine trained dogs will land in the country by early Sunday morning to help with the relief efforts.

Two experts from the Swiss Humanitarian Aid Unit will arrive already later Saturday to begin work.

Other countries, such as Britain, were also beginning to receive requests from Japan for assistance, as international coordination efforts were picking up in earnest.

Other reported aid on its way included 140 personnel from the United States and a 48 member search-and-rescue team from New Zealand. [Read more](#)

Editor: Members of the international spill community share a deep concern and sympathy for the people of Japan who are suffering a terrible tragedy. At this time, the first priority must be for humanitarian relief but, as a fuller picture of the unfolding disaster emerges, the extent of environmental pollution will become clearer. As a focal point for the international spill response community the International Spill Control Organization will continue to monitor the situation and be ready to respond to requests for assistance in dealing with oil and HNS / chemical pollution. The organization is dedicated to bringing together people involved in resolving pollution problems arising from marine and onshore spills and to making their knowledge and experience available in times of need.

USA: INTERIOR TO ASSESS EFFECTS OF POSSIBLE ARCTIC OIL SPILL

The Interior Department will study the potential impacts of a "very large oil spill" in the Arctic Ocean as part of a court-ordered supplemental review of oil and gas leasing off Alaska's northwest coast, the agency said.

The draft supplemental review will determine the fate of 2.8 million acres of Chukchi Sea leases that sold for nearly \$2.7 billion in February 2008 and will inform the agency's approach to future drilling proposals in the Arctic, the department said.

The review is part of Interior's draft supplemental environmental impact statement (SEIS) released last October and will comply with a summer 2010 ruling by a federal district court in Anchorage that Interior failed to analyze the environmental impacts of natural gas development from the lease and failed to consider missing scientific data. [Read more](#)

USA, CUBA, BAHAMAS: JOINT SPILL PLANNING

Mar 7, 2011. As Cuba and The Bahamas develop their deepwater oil and natural gas potential, the possibility of an accidental oil spill demands proactive joint planning by both countries and the US in order to minimize or avoid such a disaster in a spirit of cooperation and not confrontation in order to protect our fragile shared marine environment.

A model for such planning can be the MEXUS Plan signed by the US and Mexico in 1980 in response to the 1979 blowout of the Ixtoc I exploratory well and consequent spill in the Bay of Campeche. [Read more](#)

EUROPE: ENSURING POLLUTERS PAY - CLEANSEANET LEGAL WORKSHOP

The rationale behind Directive 2005/35/EC on ship-source pollution – and the CleanSeaNet service that supports it – is similar to that of speed cameras on roads. By increasing the risk of being 'caught in the act', shipowners are discouraged from polluting the seas, rules are better-respected, and, overall, behaviour is changed for the better. With a view to ensuring effective enforcement, EMSA organised a workshop on 15-16 February to discuss how the illegal discharge 'enforcement chain' could be improved.

The workshop gathered operational actors responsible for spill detection and response, including CleanSeaNet users, authorities responsible for vessel inspections in ports, and administrative and judicial enforcement authorities. Other representatives included the Regional Agreements, informal networks of prosecutors and global law enforcement, together with a representative from the EU Commission. [From the March 2011 issue of the EMSA Newsletter] <http://www.emsa.europa.eu>

NIGERIA: LEAD POISONING KILLS 400 MORE NIGERIAN CHILDREN

March 7 - Lead poisoning linked with illegal gold mining has killed a further 400 children in northern Nigeria since November, the National Emergency Management Agency (NEMA) said on Monday.

The latest figures suggest the death toll from the crisis in the northern state of Zamfara is rising after the United Nations said lead poisoning in the region had killed at least 400 children between March and October last year.

Such is the economic draw of illegal gold mining that impoverished farmers dig up rocks by hand in open mines, but the ore being unearthed around their villages contains high concentrations of lead, contaminating the air, soil and water. [Read more](#)

EUROPE: SAFEMED II PROJECT PRESENTS ITS ACTIVITIES AT THE IMO FSI SUB-COMMITTEE

The SafeMed Project has supported the participation of nearly 300 officials from the maritime authorities of the SafeMed Beneficiaries¹ in seminars and workshops on a wide range of subjects, such as the monitoring of Recognized Organizations performing duties on behalf of the authorities, the adoption of international legislation on minimum standards of working conditions for seafarers, and the importance of human element in accidents.

This was divulged during a presentation about the Project's activities related to flag State implementation (FSI), delivered by Mr Albert Bergonzo, SafeMed's Project Officer (Maritime Administration), on the occasion of the recently held 19th session of the IMO² Sub-Committee on FSI. The presentation was attended by Mr Marten Koopmans, Permanent Representative of the EC to IMO, and by Mr Stefan Micallef, Senior Deputy Director of IMO's Marine Environment Division.

Participants were informed about the extensive work carried out by REMPEC, the Mediterranean regional institution implementing the SafeMed II Project. The work consisted in expertise missions in the field, desk studies, regional and national activities to assist the Beneficiaries in effectively implementing the International Convention for the Prevention of Pollution from Ships (MARPOL) and to help them volunteer for the IMO Audit Scheme of their administrations (VIMSAS).

Since the beginning of the Project in 2006, FSI has been one of the major activities undertaken to achieve the objective of mitigating the gap in the implementation of international maritime legislation between EU Member States and the MEDA Partners in the Mediterranean basin. The SafeMed II Project financed the participation of representatives of four SafeMed II Beneficiaries as well as the participation of the Director of the Med MoU on PSC Information Centre at FSI 19.

The Project has also allocated twenty-five Masters level scholarships at the IMO International Maritime Law Institute in Malta and the World Maritime University in Malmö, Sweden. These graduates, many of whom have increased responsibilities, now apply their new skills and competences to play an active role in the improvement of the performance of their maritime administrations.

As a result, all Beneficiaries are well aware of the efforts that the IMO and the EU are making to fight sub-standard shipping and that they are an integral part of the international maritime community, and, as such, their full participation is required in this fight. This is particularly true in the semi-enclosed area of the Mediterranean basin.

Flag State performance is an ongoing process in an ever-changing world. Yet, it is clear that the SafeMed Project Beneficiaries have joined a virtuous circle, one that will bring steady improvement in their maritime standards.

¹ The SafeMed Project Beneficiaries are Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, the Palestinian Authorities, Syria, Tunisia, and Turkey, plus Albania, Bosnia-Herzegovina, Croatia, and Montenegro.

² IMO was established to adopt legislation and Governments are responsible for implementing it. When a Government accepts an IMO Convention it agrees to make it a part of its own national law and to enforce it just like any other law. The problem is that some countries lack the expertise, experience and resources necessary to do this properly. Others perhaps put enforcement fairly low down their list of priorities. Source: IMO website.

TAIWAN: NEW RULES MEAN 3,000 FIRMS WILL PAY POLLUTION FEES IN JULY

The Environmental Protection Administration (EPA) will start collecting pollution fees from operators in an additional 15 industries and business lines starting from July to increase the fund for preventing and remedying soil and groundwater pollution in Taiwan area.

The new rules were revised in February 2010 with enforcement set for July 1 this year.

Under the new rules, companies engaged in 15 more industries and business lines will have to pay a fee to the Soil Pollution and Groundwater Pollution Remediation Fund established a decade earlier. [Read more](#)

USA: UNIFIED COMMAND RESPONDS TO US COAST TSUNAMI DAMAGE

SAN FRANCISCO 12 March - – The Unified Command continues to respond to damage caused by the tsunami yesterday.

The Unified Command, consisting of the United States Coast Guard, California Department of Fish and Game Office of Oil Spill Prevention and Response, and local harbor masters, has activated joint operation efforts in Crescent City and Santa Cruz harbors.

Operations include assessing damage to vessels and harbor infrastructure and monitoring pollution impacts. Public and worker safety is a top priority. The public is asked to follow local officials' directions and stay away from the impacted coastal areas and harbors due to unstable conditions and debris hazards. [Read more](#)

BALTIC SEA'S MOST EFFICIENT OIL SPILL RESPONSE VESSEL TO OPERATE IN GULF OF FINLAND



The new multipurpose vessel was christened Louhi in Uusikaupunki. The ship will dramatically improve Finland's preparedness to deal with oil and chemical spills in the Gulf of Finland.

March 9 - Finland's oil spill clearance capacity will be improved by no less than 15 per cent in one go. At yesterday's launching ceremony, Finland's newest and the Baltic Sea's most efficient environmental damage defence vessel was named *Louhi*.

Once completed and fitted out, the ship that cost the Ministry of the Environment EUR 48 million will be stationed in the Upinniemi port in Kirkkonummi, west of the capital.

Louhi was christened and presented to the public yesterday Tuesday at the Työvene shipyard in Uusikaupunki. The vessel is meant to commence its operations in May, and its trial period will last until the autumn of 2012.

All of Finland's oil and chemical spill response ships are multipurpose vessels with the capability of taking part in environmental protection tasks, while their everyday use has to do for example with coastguard work, service assignments, shipping lane construction, and icebreaking. [Read more](#) [More info](#)

USA: BOEMRE RELEASES REPORT OF INVESTIGATION ON BP'S ATLANTIS PLATFORM

March 7 - The Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) today released the findings of its investigation into allegations that BP Exploration and Oil, Inc. (BP) did not maintain required copies of engineer-approved drawings for its Atlantis oil and gas platform operating in the Gulf of Mexico. The investigation stemmed from an April 2009 lawsuit filed under the False Claims Act by a former BP contractor. The former contractor alleged that BP did not properly maintain the engineer-approved "as built" drawings of systems and structures aboard the Atlantis facility. The contractor alleged that the absence of the documentation created increased safety risks for the facility and to its personnel. [Read more](#)

USA: HAZARDOUS MATERIALS: ENHANCED ENFORCEMENT AUTHORITY PROCEDURES

Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation - PHMSA is implementing enhanced inspection, investigation, and enforcement authority conferred on the Secretary of Transportation by the Hazardous Materials Transportation

Safety and Security Reauthorization Act of 2005. This final rule establishes procedures for issuance of emergency orders (restrictions, prohibitions, recalls, and out-of-service orders) to address unsafe conditions or practices posing an imminent hazard. [Download this document](#)

UK: NEW WASTE REGULATIONS TO AFFECT ALL UK BUSINESSES

The Waste (England and Wales) Regulations 2011 due to come into force next year will impact on a broad range of organizations including those that produce, carry, store, treat or dispose of waste as the latest round of updates from the revised EU Waste Framework Directive 2008/98. The regulations require businesses to confirm that they have applied the waste management hierarchy when transferring waste.

This requirement extends the existing duty of care for waste and treatment requirements to ensure that organizations consider, prevention, preparing for reuse, recycling, and recovery, of waste prior to disposal. Whenever you pass waste on to someone else, you will have to declare on the waste transfer note, or consignment note for hazardous waste, that you have applied the waste management hierarchy. Whilst the concept is not new, the legal duty to follow the principle is. The regulations also introduce a two-tier system for waste carrier and broker registration, including a new concept of a waste dealer, and make amendments to hazardous waste controls introducing a new category, H13 Sensitizing. [Thanks to Stephen Asbury of ISCO Associate Member, DG & Hazmat Group] [Read more](#)

News (continued)

PERU: REPORT REVEALS OVER 90 OIL SPILLS IN PERUVIAN AMAZON IN THE LAST 3 YEARS

This report by the Federation of Indigenous Communities of the Corrientes River (FECONACO) and Peruvian NGO Shinai documents the ongoing impacts of oil drilling in Oil Blocks 1-AB and 8 in the Northern Peruvian Amazon. A team of monitors from the indigenous Achuar and Urarina communities on the Corrientes River documented 18 major crude oil spills in 2010 and over 90 spills over the last three years, directly affecting dozens of miles of rivers and streams and vast stretches of forest. Blocks 1-AB and 8 are currently operated by Argentine company Pluspetrol. Block 1-AB was operated by Los Angeles-based Occidental Petroleum (Oxy) from 1971 to 2000 and is the subject of [ongoing litigation](#) by communities alleging the company severely contaminated the environment for nearly 30 years. [Read more](#)



People in the news

PROFESSOR JOHN CARLTON APPOINTED AS 109TH PRESIDENT OF IMAREST



Professor John Carlton DSc BA CEng CMarEng FIMarEST FIMechE MRINA, Professor of Marine Engineering, City University London and, until his retirement in 2010, the Lloyd's Register Global Head of Marine Technology and Investigation, has been appointed the 109th President of the Institute of Marine Engineering, Science and Technology (IMarEST) at its AGM today (10 March). Malcolm Vincent BSc(Hons) MSc CEng FIMarEST has been appointed President Elect.

John Carlton takes over the reins of office from Rear Admiral Nigel Guild CB PhD DEng CEng FREng FIMarEST. Professor Carlton's first task as President will be his speech tomorrow (11 March) at the IMarEST 108th Annual Dinner with IMarEST members and their guests representing the global engineering, science and technology sectors of the maritime industry in London for the occasion. [Read more](#)

HNS spill response

ARTICLE IN THE HAZWASTE QUARTERLY : EMERGENCY PLANNING AND RESPONSE

"A typical business never intends to have a release of its hazardous waste or materials, but accidents happen. Planning and being prepared are the best form of prevention and decrease your chances of a release. Emergency response requirements are based on your hazardous waste generator size. The larger your generator size, the more involved the requirements. Make waste reduction a top priority to lower your requirements!

To understand what requirements your business has, you must know your generator size. Minn. Rule pt. 7045.0206 identifies three size categories of hazardous waste generators.

- Large Quantity Generators (LQG), who's waste volumes are greater than or equal to 1000 kg/month (~ 2200 lbs or 220 gallon);
- Small Quantity Generators (SQG), who's waste volumes are between 100 and 1000 kg/month (220 lbs to 2200 lbs or 22 gallons to 220 gallons);
- Very Small Quantity Generator (VSQG), who's waste volumes are less than or equal to 100 kg/month (~ 220 lbs or 22 gallons)"

The ensuing chapters in this article are –

- Set up procedures that minimize the possibility of accidents or releases.
- Have the following emergency equipment readily available
- Maintain and test your emergency equipment to ensure proper operation.
- Provide enough space in the storage areas to allow for easy access to the containers
- Plan for emergencies

[Download this article](#)



In this issue of the ISCO Newsletter we are printing No. 17 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](#)

KNOWLEDGE OF WATER-IMMISCIBLE SYSTEMS (CHAPTER 17)

The rate at which the dispersed phase (oil/HNS) droplets migrate upwards in the continuous phase (water) is given by Stokes' Law for streamlined conditions (Reynolds' Number < 2) by Newton's Law for turbulent conditions (Reynolds' Number > 500) and by an Intermediate Law between these limits, the equations for all three being readily available for calculation of the migration velocity U for specified droplet-sizes, continuous-phase viscosities, and phase-density differences. Thus, if a lowest size droplet is specified for a gravity separator, then its calculated migration velocity U is related to the time t taken for it to rise from the bottom inlet to the upper water phase boundary at height h above the inlet, is given as $t = h/U$, this being the separator residence time required for all droplets above and including the specified minimum size to migrate to the phase-boundary. This enables the cross-section area and length l , of the standard API (American Petroleum Institute) separator to be calculated for removal of droplets down to a specified minimum size for a known flow rate per unit cross-section area V , because $l = Vt$.

Thus, with the surface area determined as above and increased by 65% to allow for short-circuiting and residual turbulence, separation of droplets down to $150 \mu\text{m}$ can be achieved in a residence time of 30-45 minutes with delivered oil-contents in the parts per million (ppm) range, though actual values depend on the oil quantity initially present as yet smaller droplets. A typical shore-based installation capable of thus treating 600 tonnes of effluent per hour could measure $35\text{m} \times 6\text{m} \times 2\text{m}$. However, the equations referred to above show that performance is enhanced the greater the density difference between the oil and water, and the lower the water viscosity, these advantages being achieved by inserting heating coils which thus permit smaller droplets to migrate to the surface than would otherwise do so. Again, the elevated temperatures and gas-bubble release in oil production from wells, not only lowers viscosity but also sweeps oil droplets upwards to coalescence. Indeed, gas is often introduced to gravity separators by injection or dissolving under pressure prior to release to simulate the action of natural gas. Again, lowered viscosity facilitates drainage of the water film which separates droplets from the floating oil phase prior to coalescence with it. Thus, while drainage might otherwise take seconds or minutes, subsequent coalescence is a matter of milliseconds.

However, given that droplet coalescence is significant only in the region of high droplet concentration beneath the growing oil phase and with this phase itself, separator volume can be reduced by decreasing the distance of droplet-migration and increasing the area of oil-phase growth by installing a series of parallel tilted plates within the basic API separator under which droplets more quickly concentrate and coalesce with the growing oil layer beneath each oil-wetted plate prior to moving along their undersides to the top of the separator, though such internal modifications do not extend coalescence from the droplet-size range of primary dispersions to that of secondary dispersions.

Nonetheless, the chemical, oil and shipping industries separate secondary dispersions (hazes), in which the droplets are small enough for the turbulence of Brownian Movement to prevent gravity migration, by having recourse to beds of granular or fibrous materials wetted by water rather than by the oil droplets which adhere to them and grow by subsequent droplet collisions to sufficient size to be sheered off by viscous drag to rise and further coalesce as in a gravity separator. Again, oil retention filters wetted by the oil droplets rather than by water are available, though these tend to block by accumulation of the retained phase. Thus, both are used only for removing secondary dispersions downstream of the primary gravity separator. Again, in shore-based effluent treatment, final purification is achieved in traditional filter-beds of gravel which self-coat with appropriate micro-organisms.

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

2 *Response to Oil and Chemical Marine Pollution*, D. Cormack, Applied Science Publishers, 1983.

3 *Response to Marine Oil Pollution - Review and Assessment*, Douglas Cormack, Kluwer Academic Publishers, 1999.

Events

Events are listed here as soon as possible after they are notified to ISCO and will usually only be featured once in this column. To find a more comprehensive listing of upcoming events, including ones previously announced in this column, [click HERE](#)

ARCTIC OIL SPILL CONFERENCE IS POSTPONED

This conference will now take place on October 4-5, 2011. Originally scheduled for 14-15 June, 2011, the date has been changed due to the availability of speakers. The organizer has advised "we could only get the very best line up if we moved to October so we decided it was a move worth making". The venue is unchanged – Hilton London Paddington Hotel. For more info click [here](#)

Events (cont)

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ISAA CONFERENCE TO BE HELD IN CORK, IRELAND HAS ALSO BEEN RESCHEDULED

This event, originally scheduled for April 5-6, 2011 has been put back to September 2011. As soon as available more information will be published in this column and on the ISAA website.

OIL SPILL INDIA 2011 INTERNATIONAL CONFERENCE & EXHIBITION

29 Sep – 01 Oct 2011, Holiday Inn Resort, Goa, India - Understanding the need for a platform to demonstrate the skills & concerns faced by the industry, ITEN Media, the organizers of the various national & International trade events on the Oil & Gas industry, is planning to organize the first of its kind OIL SPILL – India (OSI) 2011 conference and Exhibition having theme 'Motivating Change', in association with ONGC, Petrotech Society, Indian Coast Guards and supported by Ministry of Environment and Forests, TERI, Indian Private Ports & Terminals Association (IPPTA) and Indian Ports Association (IPA).

The event will deliberate & demonstrate the preparedness of the industry to tackle the menace of Oil spill, its prevention, response, incident management and restoration including an informative schedule for raising Global Standards. It will also discuss the prevention of oil spill pollution and the future needs for proper management of prevention and the associated risks faced by Governments, Industry, Users and the Public. It would also showcase case studies on some of the world's worst oil spills.

With its universally relevant theme of "Coming Together & Working Together", the Conference will bring together global experts & stakeholders across industry, government and non-government organisations to discuss oil spill issues including cause and prevention, preparedness, response management and environmental issues. [More information](#)

Publications

US EPA -TECHNOLOGY NEWS AND TRENDS

The March 2011 issue of *Technology News and Trends* has been posted to the CLU-IN web site. This issue highlights...

- [Revised Characterization Plan Accelerates Petroleum Brownfield Cleanup and Redevelopment](#)
- [ERI Survey Helps Delineate TCE Plume and Guide Field Testing of Innovative ISCO Candle Technology](#)
- [3D-CSIA Forensics at the FAMU Law School Site Reveals Multiple Contaminant Sources](#)

This issue is available at: <http://www.clu-in.org/products/newsletters/tnandt/>

Products and services

PRODUCTS RECENTLY APPROVED BY CEDRE

- The dispersant SUPERDISPERSANT-25, marketed by Oil Slick Dispersants Limited, UK, was added to the list of dispersants approved by *Cedre's* laboratory for use at sea to respond to oil spills. The complete list is available at www.cedre.fr
- Two new floating sorbents, CORKSORB G01006 and CORKSORB G02025, for Amorim Isolamentos S.A, Portugal, now feature on our list of sorbents for use at sea or on inland waters. The complete list is available at www.cedre.fr

Response products are added to *Cedre's* list for a duration of 3 years from the issue of the test results by *Cedre*, renewable upon request by the beneficiary subject to no changes being made to the product or procedure criteria.

EMSA DOCUMENTS

EMSA documents: The Pollution Preparedness and Response Activities of the European Maritime Safety Agency – Report 2010; Network of Stand-by Oil Spill Response Vessels: Drills and Exercises Annual Report 2010. [More info](#)

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