

## **ISCO NEWSLETTER**

The Newsletter of the International Spill Response Community Issue 494 3 August 2015

> info@spillcontrol.org http://www.spillcontrol.org



### ISCO & THE ISCO NEWSLETTER

The ISCO Newsletter is published weekly by the International Spill Control Organisation, a not-for-profit organisation supported members in 45 countries. ISCO has Consultative Status at IMO, Observer Status at IOPC Funds and is dedicated to raising worldwide preparedness and co-operation in response to oil and chemical spills, promoting technical development and professional competency, and to providing a focus for making the knowledge and experience of spill control professionals available to IMO, UNEP, EC and other organisation.

### ISCO COMMITTEE & COUNCIL

ISCO is managed by an elected executive committee members of which are Mr David Usher (President, USA), Mr John McMurtrie (Secretary, UK), Mr Marc Shaye (USA), Mr Dan Sheehan (USA), M. Jean Claude Sainlos (France), Mr Kerem Kemerli (Turkey), Mr Simon Rickaby (UK), Mr Li Guobin (China), Captain Bill Boyle (UK) and Mr Dennis van der Veen (The Netherlands).

The Register of ISCO Members is maintained by Ms Mary Ann Dalgleish (Membership Director). She is also responsible for collecting membership dues.

The Executive Committee is assisted by the non-executive ISCO Council composed of the following national representatives - Mr John Wardrop (Australia), Mr Namig Gandilov (Azerbaijan), Mr John Cantlie (Brazil), Dr Merv Fingas (Canada), Captain Davy T. S. Lau (China, Hong Kong), Mr Li Guobin (China, Mainland), Mr Darko Domovic (Croatia), Eng. Ashraf Sabet (Egypt), Mr Torbjorn Hedrenius (Estonia), Mr Pauli (Faroe Islands), Einarsson Prof. Harilaous Psaraftis (Greece), Captain D. C. Sekhar (India), Mr Dan Arbel (Israel), Mr Sanjay Gandhi (Kenya), Mr Joe Braun (Luxembourg), Chief Kola Agboke (Nigeria), Mr Jan Allers (Norway), Capt. Chris Richards (Singapore), Mr Anton Moldan (South Africa), Dr Ali Saeed Al Ameri (UAE), Mr Kevin Miller (UK) and Dr Manik Sardessai (USA).

For more info on Executive Committee and Council Members go to www.spillcontrol.org

### INTERNATIONAL DIRECTORY

Click on these links to view websites

**CONSULTANTS** 

**EQUIPMENT & MATERIALS RESPONSE ORGANISATIONS TRAINING PROVIDERS** 

For more information on the events featured below, click on the banners



## 25TH ANNUAL November 10-12, 2015 New Orleans, LA

MORIAL CONVENTION CENTER

Inland, Offshore, Coastal, Solutions for Spill Preparedness and Response **Register Now** 

#### International news

## PREPARING FOR THE DESIGNATION OF THE PACIFIC REGION'S FIRST PARTICULARLY SENSITIVE SEA AREA

July 31 - Pacific island representatives gathered in Nadi, Fiji this week to discuss the protection of important marine areas from the impacts of international shipping. The sub-regional workshop on 'The Identification and Designation of Particularly Sensitive Sea Areas (PSSAs) in the Pacific Ocean' was coordinated by the Secretariat of the Pacific Regional Environment Programme (SPREP) in collaboration with the International Maritime Organization (IMO).



Pictured above: The delegation from Papua New Guinea meet with Mr Edward Kleverlann from the IMO at the sub-regional workshop on 'The Identification and Designation of Particularly Sensitive Sea Areas (PSSAs) in the Pacific Ocean'.

The workshop was organised under the IMO Integrated Technical Cooperation Programme to promote the concept of PSSAs. In attendance were representatives from Cook Islands, Fiji, Kiribati, Republic of the Marshall Islands, Palau, Papua New Guinea, Solomon Islands and Tonga as well as staff from SPREP, IMO and the Secretariat of the Pacific Community (SPC).

For further information, please contact Mr Anthony Talouli on anthonyt@sprep.org or visit www.pssa.imo.org

SPREP Read more

#### BECOME A MEMBER OF ISCO

Enjoy all the benefits of membership of this worldwide organization and support the continuing publication of the ISCO Newsletter Application Form

#### PROFESSIONAL MEMBERSHIP

Advance your career by gaining Professional Recognition

Professional recognition is a visible mark of quality, competence and commitment, and can give you a significant advantage in today's competitive environment.

All who have the relevant qualifications and the required level of experience can apply for Professional Membership of ISCO.

The organization offers independent validation and integrity. Each grade of membership reflects an individual's professional training, experience and qualifications.

You can apply for Student Membership, Associate Membership (AMISCO), MEMBERSHIP (MISCO) or FELLOWSHIP (FISCO)

All about Professional Membership
Application Form

#### To receive the free ISCO Newsletter

Go to <a href="http://www.spillcontrol.org">http://www.spillcontrol.org</a> and enter your name and email address in the Registration Form (located on the right hand side of the home page) then click on "SUBSCRIBE"

## International news (continued)

# RUSSIAN, LITHUANIAN, POLISH RESCUERS TO HOLD DRILL ON ELIMINATION OF OIL SPILL

Satellite images to help find those responsible for major oil spill in Russian Far East

Crews of rescuers from Russia, Lithuania and Poland are expected to take part in an exercise out in the Baltic Sea where they will simulate an emergency elimination of an oil spill, Vitaly Tsykhotsky, the chief of the Kaliningrad Maritime Salvage and Coordination Center told TASS.

"The exercise will involve six ships and seacraft, as well as a Mi-8 helicopter of the Russian Agency for Maritime and Inland Waterway Transport, the company LUKOIL-Kaliningradmorneft, the Baltic Fleet of the Russian Navy, and a number of fuel companies. Poland's maritime search and rescue service has committed three ships and Lithuania, one rescue ship of the national naval forces".

Exercises of Russian, Lithuanian and Polish rescuers are held in the format intergovernmental agreements on prevention of contaminations of the Baltic Sea. On the basis of recommendations of the Helsinki Commission, the three countries have set up a regional grouping of forces that hold exercises twice a year.

The legend of the exercise suggests that a refueling ship gets damaged in the sea in the process of tying up. Up to 300 tons get into seawater, thus posing a risk of contamination of the shore of the Kaliningrad (Vistula) Spit.

#### Tass Read more

#### **OCTOBER 2015 IOPC FUNDS MEETINGS**

Invitations and Agendas have now been issued for the next meetings of the IOPC Funds' governing bodies, which will take place from 19-23 October 2015 at the Headquarters of the International Maritime Organization (IMO) in London.

Documents for consideration at the meetings will be made available via the Document Services section, where delegates can also register for the meetings. Further information regarding the meetings and the role and composition of each of the governing bodies is available here.

## Incident reports from around the world (in chronological order)

## AUSTRALIA: BEACHES NEAR LUCINDA, HINCHINBROOK ISLAND, PALM ISLAND WILL CLOSE WHILE MYSTERY OIL SPILL CLEANED UP

July 27 - Authorities are asking the public to stay away from several north Queensland beaches as a clean-up of a mystery oil spill continues.

The Queensland Transport Department was alerted to thin patches of oil along a 10 kilometre stretch of water in ocean south of Townsville 10 days ago. Air searches failed to find any sign of the pollutant but the department received reports on Friday that some oil had begun to wash up on beaches near Lucinda, north of Townsville, and on Hinchinbrook and Palm islands. ABC News Read more

#### July 30 - Queensland oil spill: Turtles, seabirds found slicked near Townsville

Two turtles and two seabirds have been found covered in oil in the wake of a spill near Townsville, the Great Barrier Reef Marine Park Authority has confirmed.

GBRMPA general manger operations Mark Read told reporters in Townsville that a large dead flatback turtle and a juvenile flatback turtle, plus two boobies, had been found covered in oil. However Mr Read said tests by veterinarian experts at James Cook University suggested the adult turtle may have died before the oil spill *Brisbane Times* Read more

## **NIGERIA: FRESH OIL SPILL HITS BAYELSA COMMUNITIES**

July 28 - A fresh oil spill from the Nigerian Agip Oil Company, NAOC's Ossiama-Ogboinbiri and Ogboinbiri-Tebidaba pipelines has impacted the environment of Keme-Ebiama, Okpotuwari and Ondewari communities in Southern Ijaw Local Government Area of Bayelsa State. Vanguard Read more

## Incident reports from around the world (continued)

#### **USA: MYSTERY OIL SHEEN DISCOVERED OFF CALIFORNIA COAST**



PHOTO: A large oil sheen was spotted off the coast of Goleta Beach on July 29, 2015.

July 30 - An oil sheen showed up in the Pacific Ocean, leaving officials baffled as to what caused it.

The Santa Barbara County Fire Department responded to strong smells of gas just before 10 a.m. yesterday at Goleta Beach and quickly found a large sheen of what appeared to be oil in the ocean, captain David Zaniboni said.

Two kayakers came in from the water with their legs and kayaks covered in the film soon after the crews arrived.

The Coast Guard flew over the sheen in a helicopter yesterday afternoon and determined it covered two square miles, Coast Guard spokeswoman Andrea Anderson told ABC News today.

ABC News Read more and watch video [Thanks to Shannon Geiger, Marine Pollution Control]

Related reports -

July 29 - Authorities Respond To 'Possible Oil Spill' Off Santa Barbara Coastline CBC News Read more and watch video

July 29 - Coast Guard Says California Oil Slick Will Vanish on Its Own ABC News Read more and watch video

## Other news reports from around the world (countries in alphabetical order)

#### CANADA: ENGLISH BAY SPILL: CANADA CAN DO BETTER

July 31 - Canada has concluded an independent review of the environmental response operation to the fuel spill in English Bay in April, and 25 recommendations have been made to improve future response efforts.

The report by John Butler, Independent Review of the M/V Marathassa Fuel Oil Spill Environmental Response Operation, presents recommendations aimed at improving the environmental response capability of the Canadian Coast Guard, Environment Canada, Transport Canada and their partners. The report is available here. The Maritime Executive Read more

## CHINA: COURT ALLOWS NGO'S OIL-SPILL LAWSUIT AMID POLLUTION FIGHT

July 27 - A Chinese court allowed a lawsuit by a domestic non-governmental organization against Cnooc Ltd. and ConocoPhillips over the Bohai Bay oil spill in 2011, in what may be one of the first tests for the government's new environmental-protection laws.

China Biodiversity Conservation and Green Development Foundation are seeking restoration of the bay's ecology after it was damaged by an oil leak from the Penglai 19-3 field, the Qingdao maritime court in eastern China said on its official microblog Sunday. The court accepted the case on July 21. Bloomberg Read more [Thanks to Walter Putman, Marine Pollution Control]

# KOREA: SUCCESSFUL MARINE ENVIRONMENT BOOTH IN THE SECOND COAST GUARD SAFETY AND EQUIPMENT SHOW

July 31 – The Korea Marine Management Corporation (KOEM) drew a huge attention in the Coast Guard Safety and Equipment Show, which marks its second anniversary this year, by setting up a marine environment booth.

KOEM displayed marine spill response equipment and models in the three days of the show, held from June 17-19 in Songdo Convensia in Incheon, to give a better understanding to vistors on how spilled oil in the ocean is skimmed and processed. KOEM Read more

### RUSSIA GETS SHIP TO LIFT NUCLEAR WASTE FROM ARCTIC WATERS

July 27 - A Russian group of nuclear technicians will in November head to Italy for training on a vessel called the Itarus that would be able to lift sunken nuclear reactors and other radioactive litter scuttled by the Soviet Navy in Arctic waters over decades, various news agencies reported.

The vessel will also be used to transport less unconventionally decommissioned reactors to dismantlement points – a lingering issue in cleaning up Northwest Russia's Cold War nuclear legacy. *Green4Sea* Read more

#### THAILAND: RAYONG FISHERMEN MARK 2 YEARS SINCE OIL SPILL

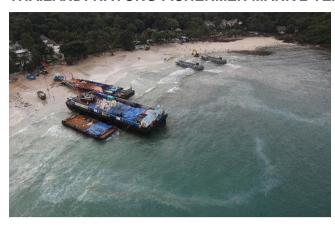


Photo: Boats remove oil-drenched waste from Ao Phrao beach on Koh Samet in Aug 3, 2013 photo during clean-up operations following the crude oil leak from a PTT Global Chemical pipeline. (Bangkok Post file photo)...

July 27 - Small fishermen in Rayong on Monday called on Thailand's biggest petrochemical company to do more to rehabilitate oil-spill impacted sites along the province's coastline, saying they still are living with...

The demand was made at a forum held by the local Small-Scale Fishery Association to mark the second anniversary of the July 27, 2013 oil spill caused by the rupture of a PTT Global Chemical Plc offshore pipeline near the Map Ta Phut industrial estate that spilled 50,000 litres of crude oil into the sea.

Local fishermen, human-rights advocates and environmental scientists attended the forum. Bangkok Post Read more

#### TURKEY: ITOPF TIPS NOW AVAILABLE IN TURKISH

July 24 - ITOPF's 17 Technical Information Papers (TIPS) providing practical guidance on oil and chemical spill response in the marine environment are now available in Turkish thanks to the kind facilitation of one of our directors at Chevron. Each paper covers a specific topic and is illustrated with photos and diagrams.



The new translations can be freely downloaded from the publications page of our website along with Chinese, Russian, French, Korean, Spanish, Arabic and English versions. http://www.itopf.com/

#### UK MARINE ACCIDENT INVESTIGATION BRANCH RELEASES 2014 ANNUAL REPORT

July 27 - The UK Marine Accident Investigation Branch (MAIB) has issued its annual casualty and incident report, providing information on what kept the branch busy during 2014.

The report notes that in 2014, 1,270 accidents (casualties and incidents) were reported to MAIB involving 1,470 vessels. Of those, 33 accident involved only non-commercial vessels, 424 were occupational accidents that did not involve any actual or potential casualty to a vessel. There were also 822 accident involving 953 commercial vessels that involved actual or potential casualties to vessels. *gCaptain* Read more

## **UK: ABOUT SEPA'S 24 HOUR HOTLINE FOR REPORTING POLLUTION**

July 29 - 24/7, 365 days a year, the Pollution Hotline (0800 80 70 60) provides an invaluable service by helping us tackle pollution and protect Scotland's environment.

Operated by SEPA's Contact Centre (SCC), the Pollution Hotline provides a point of contact for people to report possible pollution incidents. Calls can come in from anywhere in Scotland and cover a wide range of things; from discoloured water, suspicious looking substances, leakages and spills, to dead fish in a burn, strong and persistent smells, smoke and dust.

Between July 2014 and June 1015, over 6000 calls were made to the pollution hotline. SEPAView Read more

## USA: U.S. FISH AND WILDLIFE SERVICE - PROJECTS HELP REPAIR DAMAGE FROM WASHINGTON OIL SPILL



Photo: Oil spill cleanup in December 2003 in Doe Kag Wats after an oil spill. Photo by USFWS.

An article by Cindy M. Schexnider, a 22-year biologist with the U.S. Fish and Wildlife Service currently stationed in the Washington State Field Office.

July 14 - "When I was in college studying natural resources and was choosing my focus of study, oil-covered loons and other birds from the Exxon Valdeez oil spill were filling the headlines. I realized then that I wanted to have a career that helped repair human impacts on our natural resources. I am fortunate to be doing exactly that with the added bonus of doing it for the federal agency responsible for conserving, protecting, and enhancing fish and wildlife – the U.S. Fish and Wildlife Service". *USFWS Pacific Region* Read the complete article and see more photos

#### **USA: OUR VIEW: AFTER TRINITY. NEVER AGAIN**

July 16 - Seventy years after Trinity, the tortured legacy of the atomic bomb lingers — in the world, where the nuclear threat remains, and in New Mexico, where scientists labored to build a weapon powerful enough to end World War II and then set it off in the desert.

As Staci Matlock reported, the environmental legacy has proved costly: "Los Alamos will never be clean." The legacy is hardly limited to New Mexico, either, with some 108 locations in 29 sites around the nation bearing the burden of waste from the Manhattan Project and subsequent nuclear weapons work. Billions of dollars have been spent cleaning up the mess, and more will be needed to scrub the toxins from our soil and water. Another legacy of the bomb: We cannot stop attempting to clean up the mess. Santa Fe New Mexican Read more

## USA: IAN SOMERHALDER LENDS SUPPORT TO CALIFORNIA'S MAMMAL AND BIRD RESCUE EFFORTS



July 19 - Both the International Bird Rescue and Marine Mammal Center recently received celebrity credibility and acknowledgement for their ongoing commitment to rescuing and rehabilitating California's injured wildlife. Both organizations have been working endlessly for several decades, primarily with the support of a dedicated group of volunteers from the region, who put in long hours that make their passion for nature and wildlife that much more important.

Actor and activist Ian Somerhalder (Vampire Diaries) recently visited the International Bird Rescue in San Pedro, California for a press conference and bird release mission. He was also there to acknowledge the team of volunteers that dedicate their time at the facility to carefully help nurse these injured species back to health. Somerhalder, a Louisiana native, also launched his own Foundation after the horrific BP oil spill that hit the gulf coast in the spring of 2010, injuring and killing hundreds of wildlife species in the area. The Huffington Post Read more

#### USA: FIVE YEARS LATER: THE ENBRIDGE OIL SPILL



July 19 - The largest inland oil spill in our nation's history started silently at 5:58 p.m. on a warm, West Michigan summer afternoon.

It would take hours for officials to realize what happened – and even longer before the magnitude of the disaster became clear.

Saturday, July 25, will mark the five-year anniversary of the Enbridge oil spill.

After Enbridge's "Line 6B" ruptured near Marshall during a planned shutdown in 2010, crews in

Enbridge's control center in Edmonton, Canada, believed alarms were part of the shutdown, according to a 2012 NTSB report.

That failure to identify a leak led to crews increasing the amount of crude oil being pumped through the line – resulting in around one million gallons of oil escaping from a 6-and-a-half foot rupture in the line, spilling into Tallmadge Creek and later into the Kalamazoo River.

Crews raced to contain the spill, but it spread quickly. Oil flowed 38 miles down the Kalamazoo River before it was contained. On July 28, 2010, three days after the spill, the oil was finally stopped – 80 miles before it reached Lake Michigan. *Wood TV* Read more

#### **Related Stories**

July 21 - 5 years since Enbridge oil spill on Kalamazoo River Michigan WWMT News Read more and watch video

July 22 - Five Years After Michigan Oil Spill, Unfinished Business Remains Inside Climate News Read more

#### **USA: U.S. COAST GUARD CELEBRATES 225 YEARS OF SERVICE**



Photo: The wreck of the Liberian tanker Argo Merchant off Nantucket, 1976. U.S. Coast Guard Photo

July 23 – An article published in gCaptain, written by William Thiesen, Atlantic Area Historian - The U.S. Coast Guard has been the steward of the nation's maritime environment since the 1820s. This mission dates back to 1822, when Congress tasked the U.S. Revenue Cutter Service with monitoring Federal forest preserves that provided specialized ship timber required for construction of U.S Navy warships.

During the late 1800s, the service's environmental mission expanded to protect endangered resources, including fish, whales and fur bearing marine mammals. This became especially important with the acquisition of Alaska in 1867 and Hawaii in 1898, and the consequent expansion of U.S. territorial waters. Many species of fish and marine mammals faced extinction from intensive fishing, whaling and sealing until the Treasury Department tasked the Coast Guard with regulating the catch of U.S. and foreign vessels.

The service's mission expanded even further with the shipping of chemical cargoes late in the 19th century. Throughout the 1800s, coal proved the most important fuel, powering merchant ships and transported as cargo by them, fortunately this solid fuel failed to pollute water, as did chemicals. In 1885, construction of the first purpose-built oil tanker Gluckauf (German word for "good luck") changed history by marking the demise of coal-dominated shipping. Ironically, the Gluckauf also marked the beginning of U.S. oil spill history in 1893, when she came ashore at Fire Island, off Long Island, New York.

During the 20th century, oil and chemical shipping grew in importance and liquid petroleum products prevailed as ship fuel and cargo. The Coast Guard's role in oil and chemical spill response officially began in 1924, when Congress passed the Oil Pollution Act. After World War II, numerous high-profile oil spills occurred; most notable among these were the Torrey Canyon oil spill in 1967 and the Argo Merchant spill in 1976. With these large environmental disasters came greater regulation of oil tankers and improved technology for responding to chemical spills. At about the same time, Congress tasked the service with monitoring unauthorized substance discharge, enforcing ballast water regulations and ensuring that commercial vessels met U.S. environmental safety and maintenance standards.

Read the complete text of this article which originally appeared on the Coast Guard Compass Blog and is the first in a series of blog posts and other events that mark the 225th birthday of the United States Coast Guard on August 4, 2015. To learn more about the Coast Guard's 225 years of Service to Nation and join the celebration, check out the Coast Guard Compass Blog.

## USA: BSEE VERIFIES RESPONSE EQUIPMENT IN GULF OF MEXICO REGION



Photo: Preparedness Analysts with BSEE's Oil Spill Preparedness Division boarded the Louisiana Responder at Fort Jackson, Louisiana on July 14 to test the response readiness of Anadarko Petroleum Corp.

July 24 - Preparedness Analysts with BSEE's Oil Spill Preparedness Division boarded the Louisiana Responder at Fort Jackson, Louisiana on July 14 to test the response readiness of Anadarko Petroleum Corp.

While conducting an equipment verification, the team witnessed the testing of a skimmer and other associated equipment, stored in Buras, Louisiana, on the Mississippi

River. Subsequent response equipment, stored at Marine Spill Response Corp. in Belle Chasse, Louisiana, was also verified. The objective of equipment verification is to assure operators have access to necessary resources outlined in their oil spill response plans and to confirm that specialized equipment is in acceptable operating condition and is being properly maintained. Source and Image Credit: BSEE

### USA: ENVIRONMENTAL PROTECTION AGENCY - 40 CFR PARTS 280 AND 281

Revising Underground Storage Tank Regulations - Revisions to Existing Requirements and New Requirements for Secondary Containment an Operator Training; Final Rule

The Environmental Protection Agency (EPA or the Agency) is making certain revisions to the 1988 underground storage tank (UST) regulation and to the 1988 state program approval (SPA) regulation. These changes establish Federal requirements that are similar to key portions of the Energy Policy Act of 2005 (EPAct); they also update the 1988 UST and SPA regulations.

Read the full text in The Federal Register [Thanks to George Hollida

# USA: HOUSE COAST GUARD SUBCOMMITTEE ADDRESSES FOREIGN OIL SPILLS AND ICE BREAKERS



Photo: The Polar Star is the United States' only heavy icebreaker. In contrast, Russia has 11 such vessels. Image-USCG

July 30 - Two bills cosponsored by Alaska Congressman Don Young were considered in the House Transportation and Infrastructure Coast Guard Subcommittee today – one to update the Oil Pollution Act (OPA) of 1990 as it relates to foreign spills, another to establish a funding process for the alteration, renovation, lease or charter of a U.S. built icebreaker.

Foreign Spill Protection Act of 2015: H.R. 1684, the Foreign Spill Protection Act of 2015, would ensure that the responsible party, regardless of origin, pays for ALL American cleanup costs associated with an oil spill. Under current law, spills occurring in U.S. waters must

be paid for in full by the responsible party. However, foreign oil spills reaching U.S. waters are paid for through the Oil Liability Trust Fund, which covers \$150 million for clean up and up to \$850 million for claims. Alaska Native News Read more

### People in the news

## **MEDITERRANEAN OIL INDUSTRY GROUP - NEW APPOINTMENT**



July 28 – News just received from MOIG – "The MOIG Management Committee Members is very delighted to congratulate Mr Yassine Mestiri, ETAP Representative in MOIG MCM for becoming ETAP Vice-Chairman and wish him all the success in his new position.

Yassine Mestiri has a Master Degree in Energy and has been in ETAP, the Tunisian National Company since 1985. Since that, he was directly involved in most of ETAP's development projects. He was assigned as base Manager of Sidi El Kilani years; after being reintegrated to the mother company as Projects Manager then a Central Production Manager dealing with ETAP's projects, fields operating and International opportunities"

## UK: BMT CORDAH APPOINTS ANDREW GLASS AS MANAGING DIRECTOR

July 27 - BMT Cordah, a subsidiary of BMT Group, the leading international maritime design, engineering and risk management consultancy, has announced the appointment of Andrew Glass as Managing Director.





#### **ISCO** news

#### NEW TECHNICAL ARTICLE UPLOADED IN MEMBERS' AREA OF ISCO WEBSITE

This article is a compilation of a series of 16 articles on Oil Spill Remote Sensing that was first published in the ISCO Newsletter, starting with issue 317 of 16 January 2012, and contributed by Dr Merv Fingas, Hon.FISCO, of Spill Science, Edmonton, Alberta, Canada T6W 1J6.

This is the first article to be made available to Members in this new area of the website. More articles will soon be added and will be announced in the Newsletter.

After logging in, Members should click on Technical & Reference and then select Technical Articles.

## Science and technology

# NANOREM: EARLY RESULTS CONFIRM THE POTENTIAL OF NANOPARTICLES FOR SOIL AND WATER REMEDIATION

A team of EU scientists is investigating the use of nanoparticles to remediate polluted soils and water. The first phase, which consists of evaluating the toxicity of various candidates, is well underway and has already yielded encouraging results.

Despite its positive impact on quality of life, industrialisation has left many polluted sites in its wake. Every year EUR 6 billion is spent to manage these sites in Europe. In the meantime, the surface area of polluted soils is expected to increase by 50 % by 2025 according to a report issued by the European Environment Agency in 2012. Additionally, the EU estimates that 20 % of European water is seriously threatened by pollution.

Whereas most countries currently rely on 'pump and treat' and/or removal to landfill (ex situ techniques) to remediate soil and water, the excavation of contaminated material can sometimes be either not desirable or not feasible. This is where in situ technologies – biological, chemical, physical and/or thermal processes to treat soil and/or groundwater at sub-surface level – come into play: they can be undertaken with minimal disruption in site operations, they reduce worker exposure to a minimum and they have a much smaller footprint than ex situ methods.

Aiming to bring in situ techniques to the next level, the NANOREM project trusts in the use of small particle size and high reactivity nanoparticles. Nano-scale zero valent iron (nZVI), for example, is expected to deliver a substantial improvement in remediation performance for a wide range of problems. The use of these nanoparticles, however, is limited due to uncertainties surrounding their environmental impact.

Encouraging results - The project has five core objectives, one of which is increased knowledge and confidence among stakeholders. To achieve this, the team has been measuring the toxicity of potentially interesting nanoparticles, assessing their ecotoxicity when in contact with soil and pollutants, measuring how this toxicity changes with time, and describing how they interact with indigenous microorganisms during and after remediation treatment.

Recently, the NANOREM team announced the initial results of ecotoxicological tests for a range of nanoparticles that could be good candidates for remediation projects: NanoFer 25S, Carbo-Iron, Fe-Oxide, Fe-Zeolites and Bionanomagnetite. The nanoparticles were tested on a range of organisms including earthworms, crustacean, green algae and bacteria, and the team found no significant toxicological effects on either of them.

The team has also announced two other positive findings. First they confirmed that, while looking at how nanoparticles' reactivity and toxicity changes with time, they actually become less reactive as they interact with soil matrices.

Then, they investigated whether nanoparticles being used to treat pollutants were able to fully degrade them and not to turn them into more toxic compounds – a widespread concern among stakeholders. Although this work is still underway, initial results seem to indicate no increase in pollutant toxicity even within a few metres of the injection wells and shortly after the injection was performed. On the contrary, groundwater samples from one of the field sites were found to be highly toxic prior to injection of Fe-Oxide nanoparticles, but this toxicity was significantly reduced within three weeks following injection.

The project will continue until January 2017, when the team hopes to have low-cost production techniques ready for use in large-scale commercial applications. The next steps will be to pursue ecotoxicity testing, whilst the monitoring of injected field sites will continue for several months and assays on microbial functioning are scheduled for the second half of the project. The researchers are optimistic and consider the results obtained thus far as extremely promising.

For further information, please visit: NANOREM

http://www.nanorem.eu/

Source: Based on information from the project website and a press release.



## **Technical Support**

# NEW RELEASE OF CAMEO CHEMICALS CORRECTS A BUG IN CAMEO CHEMICALS FOR WINDOWS

July 30 - CAMEO Chemicals 2.4.2.1 is now available online at http://response.restoration.noaa.gov/cameochemicals

It's a Windows only release to fix those two bugs in the 2.4.2 version.

Windows users will start seeing the notification messages about the new version appear the next time they run CAMEO Chemicals, although that may not be until tomorrow since we released midday today and the program only checks for updates once a day. (We won't be doing a separate listserve message about this release.)

[Thanks to Alan Finkelstein, Assistant Fire Marshal, Strongsville Fire and Emergency Services/Southwest Emergency Response Team HazMat,17000 Prospect Road, Strongsville, Ohio Tel. 44149, 440-580-3226 (Office), 440-572-4349 (fax)

#### **Publications**

## NEW EI PUBLICATION: EI MODEL CODE OF SAFE PRACTICE PART 15: AREA CLASSIFICATION FOR INSTALLATIONS HANDLING FLAMMABLE FLUIDS (COMMONLY KNOWN AS EI15)

July 22 - Recognised internationally as being the de-facto guidance for calculating hazardous areas in the petroleum industry. This new (4th edition) has been significantly updated from the 3rd edition.

Providing a demonstrable methodology for determining hazard radii, and applicable to all installations handling flammable fluids. El15 gives guidance on the classification of regions around equipment handling or storing flammable fluids, and a basis for both the correct selection of fixed electrical equipment and the location of other fixed sources of ignition in those areas El Read more

## Links for recent issues of other publications (in alphabetical order)

**AMSA Aboard** ASME EED EHS Newsletter

**Bow Wave** 

Cedre Newsletter

Celtic Biogenie enGlobe Newsletter

**CROIERG Enews EMSA Newsletter** Energy Institute eBulletin

**Environmental Technology Online** 

**IMO News Magazine IMO Publishing News** Intertanko Weekly News

**IPIECA eNews** JOIFF "The Catalyst **MOIG Newsletter** NOAA update **OCIMF Newsletter** 

Pollution Online Newsletter Sea Alarm Foundation Newsletter

**SAC News** 

Technology Innovation News Survey

The Essential Hazmat News Transport Canada Newsletter

**USA EPA Tech Direct USA EPA Tech News & Trends** 

WMU Newsletter

News from the Australian Maritime Safety Authority

News and commentary on HSE issues from George Holliday Sam Ignarski's Ezine on Marine & Transport Matters

News from Cedre in Brittany, France

Latest Remediation and related technology news

Canberra & Regions Oil Industry Emergency Response Group

News from the European Maritime Safety Agency

News from the Energy Institute

Environmental Monitoring, Testing & Analysis News from the International Maritime Organization

New and forthcoming IMO publications International news for the oil tanker community

Int'l Petroleum Industry Environmental Conservation Assoc'n

Int'l Organisation for Industrial Hazard Management News from the Mediterranean Oil Industry Group

Oil spill response news from NOAA OR&R News from the Oil Companies International Marine Forum

News for prevention & control professionals

Oiled wildlife Preparedness and Response news from Sea Alarm

Oil spill related and other news from Alaska From US EPA - Contaminated site decontamination

Alliance of Hazardous Materials Professionals News and articles re transport of dangerous goods in Canada

Remediation of contaminated soil and groundwater

Contaminated site clean-up information News from the World Maritime University

July 2015 issue Most recent issue Current issue June 2015 Spring 2015 issue Current issue July 2015 issue April 2015 issue July 2015 issue No 2, 2015 June 2015 No 31 2015 February 12 issue July 2015 issue Most recent Issue **April 2015** June 2015 issue July 29 issue Spring 2015 issue July 24 issue 2015 June 1 - 15 2015 July 27 issue

Winter 2014 issue

Spring 2015 issue

June 2015 issue

August 1 2015 issue

## Training

**Americas** 

### **OSRL TRAINING LINKS - UPDATES RECEIVED FROM OSRL**

Here are some useful links help you access OSRL's latest spill response courses. If you need any help finding the training information you need, please contact us. vincentgoh@oilspillresponse.com (APAC) or stevewoods@oilspillresponse.com (for all other regions)

## Live 2015 Course Schedule

Courses by Region: Courses by Standard:

**IMO Africa MCA** 

**APAC OSRL Cert** 

**DECC** Europe

The Middle East ICS (for ICS 100 & 200 see e-learning below)

Try our free e-learning demos: Oil Spill Awareness for Vessel Crews Demo and DECC Demo

To access our full range of e-learning courses

We are currently building our training schedule for 2016. Please let us know if you would like us to deliver oil spill response courses in your region, we will try our best to make them available.

Our training site www.oilspillresponsetraining.com will be closing soon. OSRL's training information will be available on our website: www.oilspillresponse.com

### **Events**

### USA: PETROTRANS CONFERENCE & EXHIBITION - CHICAGO, SEPTEMBER 30 - OCTOBER 1

PetroTrans is the inland petroleum transportation industry's premiere event for incident prevention, planning, preparedness & response. This is where you will meet decision-makers and key stakeholders who drive vital issues for current and future North American product movement – including Producers & Transportation Operators; Federal, State & Provincial Regulators; and Environmental, Health & Safety Executives and Emergency Responders.

PetroTrans is the one event where the environmental, safety, hazmat & regulatory industry gathers for all modes of inland petroleum and refined products transportation.

With the rapid growth of inland transportation and storage of petroleum and refined products, the safety, environmental and regulatory aspects are quickly emerging on the state, provincial and federal levels. Whether by rail, pipeline, barge or storage terminals, the industry needs a meeting place where all the stakeholders can gather and share information, best practices, regulatory developments and solutions for incident prevention and response.

The summit and training workshops will be held at the Chicago Marriott O'Hare, September 30 - October 2, 2015. More info

### CHINA: OCEANOLOGY INTERNATIONAL CHINA 2015 - SHANGHAI, 3-5 NOVEMBER

Oceanology International China is the only forum in Asia where industry, academia and government share knowledge and connect with the international marine technology and ocean science communities. Developed in conjunction with government and industry associations, Oceanology International China provides domestic and international suppliers the opportunity to capitalise on China's rapidly developing offshore energy and marine industries. More info

## UK: EMERGENCY PLANNING SOCIETY - EMERGENCY SERVICES SHOW, NEC BIRMINGHAM 23-24 SEPTEMBER

Taking place at the NEC on 23rd and 24th September, the Emergency Services Show has attracted over 400 exhibiting companies, offering procurement officers the ideal opportunity to see, handle and compare the latest equipment, vehicles and technology.

The impressive indoor and outdoor exhibition is a one-stop shop for sourcing all the latest services and equipment required for emergency response and keeping the public safe from threats such as floods, road traffic accidents and terrorist attacks. For more information and to book click here

### USA: FALL 2015 APICOM MEETING - BOSTON, MASSACHUSETTS, SEPTEMBER 9-11, 2015

More info: http://www.apicom.org/

#### SINGAPORE: 4TH ANNUAL SALVAGE & WRECK ASIA CONFERENCE 2015 - 8-9 SEPTEMBER 2015

Improving cooperation and coordination of salvage operations in the Asia-Pacific - 4 days of case studies, legal updates, salvage strategy and technical debates. More info

### INDIA: OIL SPILL INDIA 2016 - GOA, 22-24 SEPTEMBER, 2016

Established in 2011, Oil Spill India (OSI) - The International Conference & Exhibition on Oil Spill Prevention, Preparedness, Response & Restoration systems has over the years created a global forum for governments, regulators, industry, academia and response organizations to discuss, deliberate, share & learn the best of practices, technologies & experienceson oil spill management. More info

## Job vacancies

## IPIECA IS LOOKING FOR A PROJECT COORDINATOR - ENVIRONMENT

Title: Project Coordinator – Environment. Reports to: Senior Manager – Environment. Location: IPIECA London office, 209-215 Blackfriars Road, SE1 8NL More info

Legal disclaimer: Whilst ISCO takes every care to ensure that information published in this newsletter is accurate unintentional mistakes can occur. No liability for consequences of errors is accepted but, if an error is brought to our attention, a correction will be printed in a following issue of this newsletter. Products and services featured in the ISCO Newsletter and/or the ISCO website, including the International Directory of Spill Response Supplies and Services, have not been tested, approved or endorsed by ISCO. Any claims made by suppliers of products or services are solely those of the suppliers and ISCO does not accept any liability for their accuracy. It should not be assumed that views and opinions expressed in linked reports, articles and other content reflect the views of the organization. Subscription is subject to acceptance of ISCO's Terms and Conditions as published on the website <a href="https://www.spillcontrol.org">www.spillcontrol.org</a>