

ISSUE 876| 13 FEBRUARY 2023

THE NEWSLETTER OF THE INTERNATIONAL SPILL RESPONSE COMMUNITY

info@spillcontrol.org | www.spillcontrol.org

ISCO & THE ISCO NEWSLETTER

The International Spill Control Organization, a not-for profit organization 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 Intergovernmental, Governmental, NGO's and interested groups and individuals

ISCO holds consultative status at the International Maritime Organisation and observer Status at International Oil Pollution Compensation Funds

ISCO EXECUTIVE COMMITTEE

President, Secretary General & Vice-Presidents

- Acting President Interim Executive IE)
- Mr Neil Marson, Secretary General (UK)
- Mr John McMurtrie, VP and Editor (UK)
- Ms Mary Ann Dalgleish, VP M'ship (USA)

Secretariat (Core Management Team) Individuals marked with * are members of IE

Mir Neil Marson *	(UK)
 Mr John McMurtrie* 	(UK)
 Ms Mary Ann Dalgleish * 	(USA)
 Captain Bill Boyle 	(UK)
• Mr John Wardrop *	(Australia)
• Mr Marc Shaye	(USA)
Mr Michael Watson	(UK)

Other Executive Committee Members	
• Mr Kerem Kemerli	(Turkiye)
 Mr Dan Sheehan 	(USA)
Mr Matthew Sommerville	(UK)
 Ms Helena Rowland 	(USA)
 Dr Larissa Montas 	(USA)
• Capt. D C Sekhar	(India)
 Dr Mervyn Fingas 	(Canada)
 Ms Jane Delgado 	(USA)
 Mr Carlos Sagrea 	(Panama)

COUNCIL (NATIONAL REPRESENTATIVES)

COUNCIL (INATIONAL REPRESENTATIVE	
• Mr John Wardrop	(Australia)
 Mr Elkhan Mamedov 	(Azerbaijan)
 Dr Merv Fingas 	(Canada)
• Captain D. C. Sekhar	(India)
 Major Ben Benny 	(Israel)
 Mr Sanjay Gandhi 	(Kenya)
• Mr Dennis van der Veen	(Netherlands
 Mr Carlos Sagrera 	(Panama)
• Mrs Fatima B. Shaik	(South Africa
• Dr Ali Saeed Al Ameri	(UAE)
• Dr Timothy Gunter	(USA)
• Mr Flavio P. de Andrade	(Brazil)
• Mr Kerem Kemerli	(Turkiye)

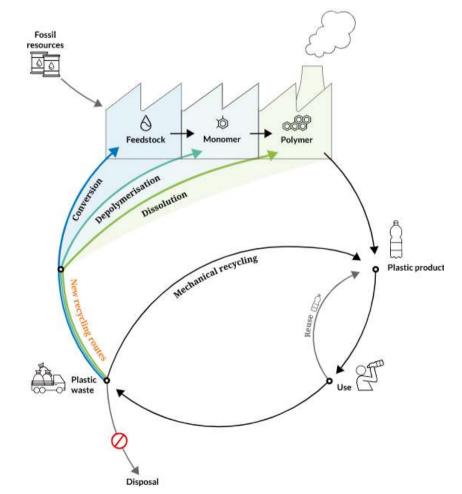
HEADLINE INTERNATIONAL NEWS

PLEASE CLICK ON THE BANNER BELOW FOR MORE INFORMATION



NEW RECYCLING TECHNOLOGIES WILL **REDUCE POLLUTION BY PLASTICS**

An interesting article from CEFIC highlights how application of new technologies can reduce pollution caused by plastics by enhancing our ability to recycle and convert plastic waste into valuable feedstock for manufacturing.



"In Europe, about 30 million tonnes of plastic waste is collected every year. Still, 85% of that is incinerated, exported or sent to landfill. This is not only a source of CO2 emissions but is also a waste of valuable resources. The chemical industry is determined to change this. How? With chemical recycling technologies, the industry has developed

ISCO AMBASSADORS

(Members with special responsibilities in specified geographical areas) Carlos Sagrera Latin America (Spanish speaking) Matthew Sommerville UK London John Noble UK London & South'ton Wu Yue China

MEMBERSHIP OF ISCO

Benefits of Membership Online Membership Application Form

YOU ARE INVITED TO JOIN THE ISCO DISCUSSION GROUP ON LINKED-IN

Linked in

LINKED Click on the link below – https://www.linkedin.com/groups/4016064/

ISCO'S FACEBOOK GROUP

link https://www.facebook.com/groups/38852831284243 1

WHATSAPP GROUP FOR STUDENTS, TRAINEES & APPRENTICES

Here is the link for joining this group –

https://chat.whatsapp.com/KMxdW7lEal79namyNIbV gg

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 MEMBERSHIP (MISCO) or FELLOWSHIP (FISCO)

About Professional Membership Professional Membership Application Form



INTERNATIONAL NEWS (CONTINUED)

complementary solutions to existing mechanical recycling to recycle mixed or contaminated plastic waste that otherwise would be incinerated or sent to landfill. These technologies can break down plastics and transform them into valuable secondary raw materials to produce new chemicals and plastics with the same quality as those made from fossil resources. Together with value chain partners, the chemical industry has already successfully developed consumer products like food packaging, refrigerator parts, mattresses, carpets, and dashboards in cars. As a next step, after having demonstrated the technologies' viability, the industry plans to roll out the technologies at industrial scale

The infographic shows how chemical recycling technologies can help to move from a linear plastic economy (produce – use – dispose) to a circular one (cradle-tocradle). Complementing mechanical recycling, 'Dissolution', 'Depolymerisation' and 'Conversion' are new recycling routes that can handle the plastic waste that would otherwise be disposed. They transform plastic waste into secondary raw materials that can be reintroduced at different steps of the plastic production process.

Chemical recycling technologies can break down plastics into its building blocks and transform them into valuable secondary raw materials. These materials can then be used to produce new chemicals and plastics. There are various chemical recycling technologies available that follow three new recycling routes to treat plastic waste:

- Dissolution: extracting plastic
- Depolymerisation: breaking it down to basic building blocks
- Conversion: turning it into raw materials

By implementing chemical recycling technologies at scale in Europe, the chemical industry can increase resource efficiency and help to close the loop in the transition to a circular economy for plastics. Today's worthless plastic waste would become economically attractive to recycle, thanks to the ways chemical recycling can turn it into valuable secondary raw materials". CEFAS / <u>Read the entire article</u>

A comment from your editor: In the context of recycling it's interesting to see that many countries are reintroducing returnable deposit schemes for bottles and cans. When glass bottles had a returnable deposit, children were directly incentivised to collect discarded bottles because they could be easily converted into valuable "pocket money" or used to help their families. Not a bad way to encourage youngsters to adopt good recycling behaviour at an early age !

INTERNATIONAL & REGIONAL NEWS

POTENTIAL FOR DELAYS IN THE CONTRACTING AND ENGAGEMENT OF SALVAGE SERVICES IN MARINE CASUALTIES

February 11 - In 2020, the use of traditional LOF contracts was reported to be at a historic low confirming a continued decline in its use over recent decades. There was also evidence of parties entering into alternative contractual arrangements leading to delays in the engagement of salvage services and, in some cases, pollution and wreck liabilities that might otherwise have been avoided.

In light of this concern, the Group commissioned the former UK SOSREP, Hugh Shaw, to conduct an independent, neutral and objective review that investigated the possible direct and root causes for delay in these circumstances and what changes might be made to improve use of LOF.

Hugh Shaw's final full report was presented to the Group and subsequently published in July 2022. It can be freely downloaded by clicking here. A presentation was made at Lloyd's by Hugh in September 2022 and the findings are being considered in conjunction with Lloyd's own review of LOF. Hellenic Shipping News / <u>Read more</u>



ISCO NEWS

ISCO AGM HELD ON THURSDAY 9th FEBRUARY

A very interesting and useful ISCO AGM was held on Zoom last Thursday. Expected to be a relatively short meeting, it turned out to be something of a marathon, lasting for nearly three hours. A first class meeting, well attended with lots of positive contributions from participants. A condensed report is in process of compilation and will be published ASAP.

NURDLES – NEW PREVENTION AND CLEAN-UP TECHNOLOGY & ONGOING R&D WORK

Yet more reports of pollution from nurdles washing up on beaches have been

received recently. Previous articles in the ISCO Newsletter have highlighted this very significant international problem. The ISCO Executive Committee is looking into how our organisation can assist by co-operating with others in promulgating better prevention and response capabilities that can be adopted on a worldwide basis. Readers of the ISCO Newsletter are invited to contribute information that can be shared within our community and help to improve our capability to counter this pollution in more effective ways.

As a starting point a new section on Nurdles has been created in the ISCO Newsletter and can be found on Page 10.

ADVERTISEMENT

By advertising in the ISCO Newsletter you will be directly supporting the work of ISCO and helping to ensure the continuation of this publication. ISCO is 100% dependent on the support of the international spill response community it serves.

ISCO's Articles of Association state – ""The income and property of the Company, whencesoever derived, shall be applied solely towards the promotion of the objects of the Company as set out in this Memorandum of Association, and no portion thereof shall be paid directly or indirectly by way of dividend, bonus or otherwise by way of profit, to the Members of the Company".

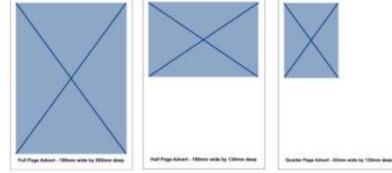
New advertising opportunities available within the ISCO Newsletter

Why Advertise?

With a dedicated readership, the ISCO Newsletter is sent to nearly 3000 invested individuals once a week.

This loyal readership continues to find value in the ISCO Newsletter since it started more than 17 years ago.

Advertising in the newsletter gives advertisers direct access to highly motivated and niche audience of senior business people and decision makers.



What is the ISCO Newsletter?

ISCO's weekly newsletter is focused in international, regional and national news that is of interest to professionals, companies and organisations involved in oil and chemical spill control and the emerging field of CBRN incident response.

Through the Newsletter and its other activities, ISCO is disseminating information on new developments – technical advances, legislation, events and other matters that affect the international spill response community.

To receive a copy of the new media pack please contact spillcontrol@mwadigital.com

NEWS REPORTS FROM AROUND THE WORLD

Editor: Many of these reports are gleaned from news provided on the websites of Environment Agencies and other national organisations, some of which are not being well maintained. ISCO does not have the resources to monitor multiple social media platforms. Your editor is grateful to those organisations that directly send him their national news reports of interest to the spill response community.

BRAZIL: IBAMA REQUESTS INFORMATION TO THE NAVY TO REDUCE THE SINKING IMPACTS OF THE AIRCRAFT CARRIER SÃO PAULO ON THE HIGH SEAS

February 2 - Ibama requested the Navy on Wednesday (01/02) information to evaluate alternatives for mitigation, repair and safeguarding of the environment from the possible sinking of the aircraft carrier São Paulo on the high seas. The request was made after the Navy officially communicated on 30/01 the decision to carry out controlled sinking of the vessel. The measure, justified by hull breakdowns that would compromise the safety of navigation and cause damage to logistics, the economy and even the environment, goes against the commitment of Ibama technicians to ensure the environmentally appropriate disposal provided for in the regulations on international waste transport (Basel Convention).

In addition to requesting studies from the Navy Hydrography Center, background mapping of the area selected for hull easing and information on the intended method to cause the sinking, Ibama recommended the preparation of a Water Monitoring Plan IBAMA / <u>Read more</u>

CANADA: GOVERNMENT ON TRACK TO MEET ITS 2025 AND 2030 MARINE CONSERVATION TARGETS

February 8 - Canada's oceans play an essential role in the lives of Canadians from coast to coast to coast. They are critical to all life on the planet, are home to a vast array of species and organisms, help regulate the Earth's climate, and play a significant role in our heritage, culture, and economy. The Government of Canada is taking action to further protect our oceans, so that future generations can continue our tradition as a proud ocean nation and enjoy the many benefits of healthy marine ecosystems.

Today, during the Fifth International Marine Protected Areas Congress (IMPAC5), the Honourable Joyce Murray, Minister of Fisheries, Oceans and the Canadian Coast Guard, and the Honourable Steven Guilbeault, Minister of Environment and Climate Change and Minister responsible for Parks Canada, announced key developments that continue the momentum towards Canada meeting its ambitious targets of conserving 25 per cent of Canada's oceans by 2025 and 30 per cent by 2030.

To start, Canada unveiled its 2023 Marine Protected Area (MPA) Protection Standard, which is endorsed by Fisheries and Oceans Canada, Environment and Climate Change Canada, Parks Canada, Natural Resources Canada, Crown-Indigenous Relations, and Transport Canada. Oceans & Fisheries Canada / <u>Read more</u>

FINLAND: THE FINNISH ENVIRONMENT INSTITUTE IS LEADING A PROJECT THAT CREATES A NEW EUROPEAN SCIENCE SERVICE FOR BIODIVERSITY

February 2 - The Finnish Environment Institute (Syke) coordinates multiple international research and innovation projects. One of them is BioAgora, a project that started in July 2022. The project is building Science Service for Biodiversity for Knowledge Centre for Biodiversity (KCBD) to ensure that current and future research is used broadly in decision-making concerning biodiversity. SYKE / <u>Read more</u>

TURKIYE: SMALL SPILL AND SOME DAMAGE TO OIL FACILITIES

February 10 - The two massive earthquakes that devastated a large area of southern Turkey and northern Syria on February 6 are causing problems for Azerbaijan's oil exports. Crude exports via the Baku-Tbilisi-Ceyhan (BTC) pipeline and Turkey's main oil terminal at Ceyhan have been halted with no clear indication what the problem is or when exports can be restarted.

BP – the operator of Azerbaijan's giant Azeri-Chirag-Guneshli oil field, and co-owner of the pipeline and Ceyhan terminal – has confirmed that the BTC pipeline itself did not suffer any damage from the 7.8 and 7.5 magnitude quakes which hit February 6, or from the hundreds of aftershocks. EurasiaNet / <u>Read more</u>

February 10 - Repair Of Turkish Oil Export Control Room Could Take A Week. gCaptain / Read more

USA: LATEST NEWS FROM NOAA OR&R

February 6 - Please click on the links blow to download and read the latest news from NOAA OR&R

New ESI Data Available for Lake Erie and Eastern Florida

The Environmental Sensitivity Index (ESI) Program recently released new digital data for both Lake Erie and the Atlantic shoreline of East Florida.

NOAA Seeks Public Comment on a Draft Natural Resource Damage Assessment Plan for the U.S. Steel Site in Duluth, Minnesota

NOAA and other federal, state, and tribal natural resource trustees have released a Draft Damage Assessment Plan for the St. Louis

NEWS REPORTS FROM AROUND THE WORLD (CONTINUED)

River / U.S. Steel site in Duluth, Minnesota, and are soliciting public comments.

Proposed Settlement Released for Public Comment on the Lower Duwamish River Natural Resource Damage Assessment

The Department of Justice lodged a consent decree(link is external) on Jan. 30, 2023, that proposes a settlement with Lynden Inc. and others to resolve claims related to releases of hazardous waste pollution on the Lower Duwamish River in Seattle.

NOAA Provides Marine Debris Education Resources to Galveston Educators

Last month, staff from NOAA Marine Debris Program, within the Office of Response and Restoration, presented to a group of educators participating in a Gulf of Mexico Bay Watershed Education and Training project.

Coast Guard Commends Two OR&R Scientific Support Coordinators

The U.S. Coast Guard has recognized two OR&R Scientific Support Coordinators — CDR Faith Knighton and LTJG Kyle Vincent — with a Coast Guard Meritorious Team Commendation for their involvement in the incident management team for the recovery of the F/V Aleutian Isle.

Workshop on Marine Debris Monitoring Incorporates International Expertise

Last month the NOAA Marine Debris Program, within the Office of Response and Restoration, hosted a workshop on national implementation of NOAA's Marine Debris Monitoring and Assessment Project.



February 10 - EPA announces start of new cleanup projects at 22 Superfund sites, along with 100 other ongoing cleanups, thanks to President Biden's Bipartisan Infrastructure Law.

Today, the U.S. Environmental Protection Agency (EPA) announced the second wave of approximately \$1 billion in funding from President Biden's Bipartisan Infrastructure Law to start new cleanup projects at 22 Superfund sites, including the Pike Hill Copper Mine site in Corinth, and expedite over 100 other ongoing cleanups across the country. EPA / <u>Read more</u>

VENEZUELA'S DILAPIDATED OIL INDUSTRY IS AN ENVIRONMENTAL CATASTROPHE

- PDVSA has stopped releasing data about oil spills since 2016.
- The volume of oil spills in the crisis-torn Latin American country is expanding.
- The OEP claimed 86 oil spills occurred in Venezuela during 2022.

The collapse of Venezuela's once prolific oil industry has triggered an economic and humanitarian crisis that accelerated in 2019 after U.S. President Donald Trump implemented strict sanctions cutting the Maduro regime off from international energy markets. It isn't only Venezuela's economy and people which have suffered from a foundering hydrocarbon sector and corroding energy infrastructure, tremendous damage has occurred to the environment. Oil spills, leaking pipelines and storage facilities, noxious discharges from ramshackle intermittently operating refineries and toxic tar like slicks are commonplace in Venezuela. Oil Price / Read more

NO NEWS FROM YOUR PART OF THE WORLD ?

Many environmental agencies and other national organisations give out very little information in the news pages of their websites. If you come across a report or an article that you think worth sharing with other members of the response community, why not send it to the editor at <u>info@spillcontrol.org</u>

OBITUARY

GARY MAUSETH



Gary Mauseth. founder and president of Polaris Applied Science, passed away this morning in Seattle Washington.

Gary spent 40 years in the oil spill world and it is safe to say, made an indelible mark on our community. He provided his scientific expertise on over 100 oil spill incidents and vessel casualties around the world, advised industry and government, and deleoped novel approaches to oil spill assessment and restoration. Gary was my mentor and friend for over 25 years.

Those who knew him will never forget him. I will miss him every day. [From Greg Challenger and with thanks to Matthew Sommerville for sending in this news]



NEWS FROM ISCO MEMBERS

Corporate Members of ISCO can by submitting news about new products and services in the "News from ISCO Members" section of the ISCO Newsletter. This is a free facility for Members. Given that the ISCO Newsletter has a large and highly targeted readership in over 50 countries, it's a cost-effective way to promote your company. If you have some news you would like to share with readers of the ISCO Newsletter, send it to <u>John.McMurtrie@spillcontrol.org</u>

TURKIYE: NEWS FROM CORPORATE MEMBER, MEKE MARINE

February 9 – The ISCO team was relieved to hear from Kerem Kemerli of Meke Marine that he, his family, his staff and their families are all safe. All of the Meke Marine personnel have mobilised to the earthquake zone to assist in the rescue efforts.

NURDLES

ISCO is particularly interested in disseminating info on new technical developments in methodologies for cleaning up marine and shoreline pollution caused by releases of nurdles. Readers of the ISCO Newsletter are invited to contribute information that can be shared in our community and hopefully improve our capability to counter this pollution in more effective ways. In this new section we will post information received from members and other readers . Please send to info@spillcontrol.org

FROM ISCO MEMBER, DR LARISSA MONTAS

"Thanks for sharing the article. The summary is excellent. I note the proposal to amend the criteria for the identification of harmful substances in MARPOL Annex III and to ensure that nurdles are identified as a harmful substance and classified as a Marine pollutant according to the IMDG Code. One critique from an opposing organization is that classification under the IMDG code would not prevent losses like the X-Press Pearl. A potential benefit is minimization of risk and magnitude of spills due more frequent incidents, such as those associated with bad weather or damage to the container's structure".

[The article referred to was forwarded by Ed Levine and the link is <u>https://www.hellenicshippingnews.com/marine-plastic-pollution-are-nurdles-a-special-case-for-regulation/</u>]

FROM JANE DELGADO OF ISCO INDUSTRY PARTNER, OHMSETT

"I echo Larissa's comments. The classification won't prevent losses, but it will ensure policies are in place to minimize the risk and that SPCC plans include nurdles. I've shared the article with the staff here at Ohmsett".

FROM DAN SHEEHAN – ADVICE FROM US COAST GUARD

ISCO Member Dan Sheehan has been in touch with the US Coast Guard who advise – "We acknowledge nurdles are a growing and priority issue in the marine environment and critical eco-systems. Currently, there are no USCG R&D efforts taking place that fall under CG-MER sponsorship for nurdles. This also includes any joint efforts the USCG is engaged on for the Interagency Coordinating Committee for Oil Pollution Research (ICCOPR). As you are likely aware, the difficulty for the USCG is that our inherent authorities are not substantial enough to tackle the nurdle issue independent of oil/hazsub discharges and release. We are engaged with NOAA and the interagency on how to best tackle this issue.

CG-MER is seeking out ways where our limited authorities can provide support to address the nurdle issue, and connect more with ISCO on this problem set as collaborative strategies are further developed".

FROM DAN SHEEHAN, ADVICE FROM NOAA

"I contacted NOAA and had a very interesting discussion, talked to Scott Lundgren, long time friend who is chief of the Office of Response and Restoration. I thanked him for his updates that he provides for the newsletter. Told him that we were exploring the issue/problem of nurdles particularly the ability to respond and mitigate their impact. He said that they too were very interested and had just been discussing the issue. He said that they had obtained funding for a possible seminar this fall. He said that there currently is no legislative authority or mechanism to provide funding to clean them up, but that they (NOAA) have a marine debris program that they are exploring the use of it to potentially tackle the issue. He said that they had recently been in touch with the American Petroleum Institute, a Ms. Barbara Parker, as well as reaching out to UNEP. Evidently there is some interest in Norway as well.

FROM CAPT. D. C. SEKHAR, ISCO CORPORATE MEMBER, ALPHAMERS

"We need preventive, regulatory measures as well as technological response solutions to such disasters as the one off Sri Lanka. Our regular oil spill response equipment will not work on nurdles and specialised equipment is required for nurdles. I am open to work with any group that is working towards technological response capacity building to such disasters".

FROM JOHN McMURTRIE

"Below is a copy of a short article that appeared in ISCO Newsletter 819 (3rd January 2022). I have contacted the company concerned to enquire about further development of their technology and will report more when I receive a reply.

A MACHINE FOR PICKING UP NURDLES FROM BEACHES



[Editor: Responses from readers of the ISCO Newsletter to the appeal made on Page 1 of issue 817 were disappointingly low but the good news is that searching on the internet has revealed more information on technical developments for addressing the difficult work of nurdle recovery. A UK company has, in association with Karcher and other partners, developed new tools for this work. More information can be found at https://nurdle.org.uk/ and at https://nurdle.org.uk/ and at https://nurdle.org.uk/ and at https://www.inyourarea.co.uk/news/nurdle-sucking-machine-to-be-put-through-its-paces-on-cornwall-beaches-this-autumn/ ISCO would welcome letters from readers who can comment on their experience of using these tools and news about any other related new technological developments for dealing with nurdles].

FROM TROND LINDHEIM OF SPILTECH IN NORWAY

"Interesting to see that more and more of the "oil spill community" are following the "marine littering path". For us this has been our main focus internationally since we started <u>SpillTech</u>,- with our <u>PortBinToolbox</u>. (But we do continue the work with oilspill prevention in Norway) In our <u>PortBin Toolbox</u> we have under development a new tool <u>PortBin ShoreCleaner</u> system that fit the challenge around nurdels. We are at the time being working on a 0-series production of the system. The goals are to make a very portable and efficient system. Enclosed some information <u>https://www.youtube.com/watch?v=w8x3iS7mjfE</u>

SCIENCE & TECHNOLOGY

If you are interested in new technology you may find it useful to visit Technology Innovation News Survey at https://clu-in.org/products/tins/ and Tech Direct at https://clu-in.org/techdirect/archive/

RECENT INTERESTING PEER-REVIEWED OIL SPILL PUBLICATIONS



A COLUMN CREATED BY DR. MERV FINGAS, MEMBER OF ISCO COUNCIL

This is part of a weekly column which provides the references and abstracts of new peer-reviewed scientific publications on oil spills. These references are selected on the basis of those papers that provide new insights into the fate, effects and control of oil spills. Readers may choose to obtain the full publications and to do so, one of three methods is suggested; contact your library, search the internet with the DOI (digital object identifier) provided, or search the internet for the exact title. These are given in the order of likely success in obtaining the article. Merv Fingas, ISCO Colleague.

36. The effects of droplet size distribution and wave characteristics on the vertical dispersion of spilled oil due to regular non-breaking waves

Hoshyar, P., Kolahdoozan, M., Imanian, H. (2023) Journal of Sea Research, 192, art. no. 102355, DOI: 10.1016/j.seares.2023.102355

RECENT INTERESTING PEER-REVIEWED OIL SPILL PUBLICATIONS (CONTINUED)

ABSTRACT: Oil pollution in marine environments is a contributing factor that disrupts the ecosystem balance and causes extensive damage. In this study, numerical simulation is chosen to study the transport and fate of spilled oil. The dispersion of oil in the water column is investigated using a Eulerian-Lagrangian numerical software model named OpenFOAM. The solver is developed to simulate the discrete phase (oil particles) in the continuous phase (water). The dispersion of oil in the water column due to wave-induced currents is studied considering particles of various size distributions. The best oil droplet size distribution is chosen according to the statistical parameters. In addition, the effect of various parameters such as the wave steepness, the wave period, the volume of the spilled oil, and the horizontal and vertical position of the sampling point on the distribution of oil concentration at depth is investigated. The results of the dispersed oil concentration for 20 cc and 30 cc spill volumes are compared with the experimental data cited in the literature and also presented for various hydrodynamic scenarios. The results of this study show the dependency of selected parameters on the variation of maximum oil concentration in the water column. A relationship is proposed and validated to calculate the maximum volume of dispersed oil based on the results of numerical simulation. The maximum volume of dispersed oil can be predicted by the proposed relationship with an accuracy of up to 40%.

37. Quantitative review summarizing the effects of oil pollution on subarctic and arctic marine invertebrates

Kalter, V., Passow, U. (2023) Environmental Pollution, 319, art. no. 120960, DOI: 10.1016/j.envpol.2022.120960

ABSTRACT: While meta-analyses are common in the health and some biological sciences, there is a lack of such analyses for petroleum-related marine research. Oil is a highly complex substance consisting of thousands of different compounds. Measurement limitations, different protocols and a lack of standards in recording and reporting various elements of laboratory experiments impede attempts to homogenize and compare data and identify trends. Nevertheless, oil toxicology research would benefit from meta-analyses, through which we could develop meaningful research questions and design robust experiments. Here we report findings from an effort to quantitatively summarize results from oil toxicology studies on arctic and subarctic marine invertebrates. We discovered that the vast majority of studies was conducted on crustaceans, followed by molluscs. Analyzing the sensitivity of response measures across taxa we found that the most sensitive responses tend to rank low in ecological relevance, while less sensitive response measures tend to be more ecologically relevant. We further uncovered that crustaceans appear to be more sensitive to mechanically dispersed than chemically dispersed oil while the opposite seems true for molluscs, albeit not statistically significant. Both crustaceans and molluscs show a higher sensitivity to fresh than to weathered oil. No differences in the sensitivities of crustacean life stages were found. However, due to a lack of data, many questions remain unanswered. Our study revealed that while trends in responses can be elucidated, heterogeneous experimental protocols and reporting regimes prevent a proper meta-analysis.

38. The Challenges of Characterizing the Zooplankton Community Response Following Simulated Spills of Diluted Bitumen into Boreal Lake Limnocorrals

Black, T.A., Paterson, M.J., Timlick, L., Cederwall, J., Blais, J.M., Hollebone, B., Orihel, D.M., Palace, V.P., Rodriguez-Gil, J.L., Hanson, M.L.

(2023) Bulletin of Environmental Contamination and Toxicology, 110 (2), art. no. 46, . <u>https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146811588&doi=10.1007%2fs00128-022-03680-7&partnerID=40&md5=9cafc17b248c678483de85c1a911a5b2</u> DOI: 10.1007/s00128-022-03680-7

ABSTRACT: We attempted to characterize zooplankton community response following spills of the unconventional crude oil, diluted bitumen (dilbit), into 10-m diameter, ~ 100 m3, ~ 1.5-m deep boreal lake limnocorrals, including two controls and seven dilbit treatments ranging from 1.5 to 180 L (1:100,000 to 1:1,000 v/v, dilbit:water). Community composition and abundances were monitored weekly to bi-weekly over three months. Total zooplankton biomass and abundance seemingly collapsed in all limnocorrals, regardless of treatment, though some rotifer species persisted. As a result, it was not possible to determine the impacts of dilbit. We theorize several potential non-oil-related reasons for the sudden community collapse – including elevated zinc levels, fish grazing pressures, and sampling biases – and provide guidance for future work using in-lake enclosures.

39. Metatranscriptomic shifts suggest shared biodegradation pathways for Corexit 9500 components and crude oil in Arctic seawater

Gofstein, T.R., Leigh, M.B. (2023) Environmental Microbiology Reports, 15 (1), pp. 51-59. 400 DOI: 10.1111/1758-2229.13127

RECENT INTERESTING PEER-REVIEWED OIL SPILL PUBLICATIONS (CONTINUED)

ABSTRACT: While the genes and pathways responsible for petroleum biodegradation in marine environments have received substantial attention, considerably less is known about those active in the biodegradation of the commonly applied chemical dispersant Corexit 9500. Yet, their fate in the Arctic marine environment is an increasingly important unknown. To elucidate the genes and pathways active in the biodegradation of oil and dispersants, we performed metatranscriptomic sequencing on microbial communities in Arctic seawater exposed to oil, Corexit, or both for 0, 5, and 30 days in a mesocosm incubation experiment. While oil and Corexit stimulated significantly different metatranscriptomic profiles overall, both enriched a suite of fatty acid degradation gene transcripts. Based on the gene transcripts observed and the chemical structures of Corexit 9500 surfactant components, we propose a hypothetical pathway for Corexit surfactant biodegradation in which surfactant ester groups are transformed into fatty acid degradation fatty acid degradation pathway. Several microbial taxa within Oceanospirillales, Pseudomonadales, and Alteromonadales were associated with either oil-only or Corexit-only exposure, potentially implicating them in the degradation of these mixtures. Metabolic gene transcripts were associated with diverse gammaproteobacterial lineages, with many genera exhibiting functional redundancy. These findings offer new insight into the potential genes, pathways, and microbial consortia involved in the biodegradation of Corexit 9500 in the Arctic marine environment.

40. Establishing a benthic macrofaunal baseline for the sandy shoreline ecosystem within the Gulf Islands National Seashore in response to the DwH oil spill

Rakocinski, C.F., LeCroy, S.E., VanderKooy, K.E., Heard, R.W. (2023) Frontiers in Environmental Science, 10, art. no. 951341, DOI: 10.3389/fenvs.2022.951341

ABSTRACT: Sandy shorelines present a first line of defense against the catastrophic effects of storms and oil spills within the coastal zone of the northern Gulf of Mexico. Immediately following the DwH oil spill prior to any spill related impacts, we conducted a rapid response survey of the sandy shoreline benthic macrofauna from throughout the National Park Service - Gulf Islands National Seashore (GINS) in Mississippi and Florida. To characterize pre-spill macrofaunal assemblages, we surveyed seven barrier island or peninsular areas comprising nine exposed and 12 protected shoreline sites. A comparable benthic macrofaunal inventory had been conducted 17 years earlier using a parallel study design. The primary objective of this study was to distinguish hierarchical spatiotemporal scales of macrofaunal variation within the 1993 and 2010 GINS data. We hypothesized that the 1993 GINS macrofaunal inventory baseline was stable, despite multiple disturbances by large storms within the intervening 17-year period. Additionally, the relative importance of hierarchical spatial scales of macrofaunal dissimilarity was examined so suitable scales of macrofaunal variation could be identified for assessments of stressor effects at commensurate scales. An Implicit Nested Mixed Model PERMANOVA using Type 1 sequential Sum of Squares delineated variation components of nested scales which ranked Station > Shore Side > Site > Habitat > District > Year. The Year main factor had the smallest effect on macrofaunal variation, confirming that the 1993 GINS macrofaunal inventory can serve as the foundation for a robust baseline including both the 1993 and the 2010 macrofaunal data for the GINS. A literal Hierarchical Nested Mixed Model PERMANOVA using Type 1 sequential Sum of Squares (SS) partitioned effects among nested factors and their interactions. Definitive macrofaunal variation was expressed for all combinations of two levels for each of the three spatially nested fixed factors, District, Shore Side, and Habitat. Variation in macrofaunal dissimilarity for combined levels of fixed factors reflected corresponding differences in the macrofauna. The use of sandy shoreline macrofaunal assemblages as ecological indicators would fulfill the need to focus on cumulative effects of oil spills and should be eminently tractable when responses and impacts are considered on commensurate scales.

TRAINING COURSES (

Training Course Providers – Please check entries below and advise editor on any necessary updates.

USEFUL LINKS

- INTERNATIONAL IMO E-LEARNING PLATFORM e-learning platform
- AUSTRALIA AMOSC <u>https://amosc.com.au/training/</u>
- AUSTRALIA & NEW ZEALAND ALGA <u>https://landandgroundwater.com</u>
- CHINA <u>http://www.sioetc.com</u>
- EUROPE EMSA Academy 2022. Courses Catalogue
- FRANCE CEDRE https://wwz.cedre.fr/Menu-secondaire/A-la-une/Le-calendrier-des-formations-2023-est-disponible
- UK & WORLDWIDE OIL SPILL RESPONSE LTD. <u>https://www.oilspillresponse.com/training/courses/</u>
- UK & WORLDWIDE BRIGGS ENVIRONMENTAL SERVICES LTD. <u>https://www.briggsmarine.com/services/training/</u>
- UK NCEC HAZMAT ACADEMY More info
- USA TEXAS A&M UNIVERSITY NATIONAL SPILL CONTROL SCHOOL https://www.tamucc.edu/research/nscs/
- USA MPC, DETROIT <u>https://marinepollutioncontrol.com/services/training-and-compliance</u>
- USA ALLIANCE OF HAZARDOUS MATERIALS PROFESSIONALS <u>https://www.ahmpnet.org/events/event_list.asp</u>

Members who would like to be listed here, please contact your editor - john.mcmurtrie@spillcontrol.org

CERTIFICATE IN MARINE POLLUTION & MANAGEMENT – LLOYD'S MARITIME ACADEMY

Online, 12 weeks, Starts 15th March 2023 Visit website for more info

CERTIFICATE IN ALTERNATIVE FUELS – LLOYDS MARITIME ACADEMY

Online, Starting 25 April 2023 Delivered by digital learning over 14 weeks. Visit website for more info

UPCOMING EVENTS

TO VIEW UPCOMING EVENTS CLICK ON HTTPS://SPILLCONTROL.ORG/UPCOMING-EVENTS/

To see <u>ALL</u> of the posted events you will need to click on "LOAD MORE" at the foot of each opened "upcoming events" page. Event organisers are requested to notify ISCO immediately if a listed event is cancelled or postponed. Your Editor does his best to keep the listing up-to-date but it should not be assumed that listed events have not been cancelled or postponed. It is recommended that you check with event organisers before finalising your attendance plans. Please advise the Editor if any of the entries require correction or updating. If you are holding an event you would like to be featured here, please send details to <u>John.mcmurtrie@spillcontrol.org</u>

FEBRUARY 2023

- Webinar from UK & Ireland Spill Association "Identification of effective tools and equipment for controllong plastic feedstocks at source to prevent escape to drains and rivers", Wednesday 15 Frbruary, 1500 GMT
- AHMP Webinar "Perspectives on PFAS", Thursday 16th February, 7.00 pm ET / 6.00 PM CT
- OSRL WEBINAR TPR SERIES "INCIDENT MANAGEMENT SYSTEM", 15 FEBRUARY, 1430-1500 GMT
- JAPAN HYBRID PAJ OIL SPILL WORKSHOP 2023 "LATEST CHALLENGES FOR MAJOR OIL SPILL RESPONSE" TOKYO, February 22nd 2023
- Canada Winter 2023 Oceans Protection Plan (OPP) Dialogue Forum, 22-23 February 2023
- WEBINAR FROM HALENHARDY "MITIGATING THE IMPACTS OF STORMWATER POLLUTANTS", 22 FEBRUARY, 10 AM EST
- Portugal World Ocean Summit & Expo, February 27 March 1, Lisbon, Portugal

MARCH 2023 AND ONWARDS

- WEBINAR EM OSR KNOWLEDGE TRANSFER- "OIL SPILL ASSESSMENT AND CLEAN-UP THROUGH THE AGES", DR ERICH GUNDLACH. 7TH MARCH
- WEBINAR FROM ALGA "MICROPLASTICS POLICIES & RESEARCH AROUND THE GLOBE", THURSDAY 23 MARCH, 8.00AM 9.30AM AEDT
- OSRL WEBINAR "SUBSEA RESPONSE READINESS", WEDNESAY 5 APRIL, 1400 GMT
- WEBINAR FROM UK SPILL & IRELAND ASSOCIATION "SUSTAINABLE SPILL RESPONSE", WEDNESDAY 19 APRIL, 1500 BST
- Gabon OSRL Technical Forum, 23 March 2023
- Ireland UK & Ireland Spill Association Regional Networking Event Belfast, 29th March 2023
- Canada 45th Technical Seminar on Environmental Contamination & Response, Edmonton, Alberta, 4-6 June, 2023
- Norway NOSCA Seminar 2023, Bodo, Norway, 20-24 March, 2023
- USA Clean Waterways Conference & Exhibition, Denver CO, 11-13 April 2023
- European Maritime Day, Brest, France, 24-25 May, 2023
- UK: Hazmat 2023 Conference, 24-25 May 2023

WHEN YOU OPEN THE UPCOMING EVENTS PAGE YOU WILL SEE MORE UPCOMING EVENTS

SOME OTHER INFO AND UPCOMING EVENTS

Details of 7 more webinars from US EPA at <u>https://clu-in.org/techdirect/td022023.htm</u> Australia – April 26 & 27 – PFAS Training & Workshop, University of Technology, Sydney – <u>More info</u> USA: May 8. 2023 - APICOM GM Meeting, Santa Barbara, CA, Location - MSRC's facility at Carpinteria Recordings of past EM OSR Knowledge Transfer Webinar Recordings – <u>Access and Download</u>

AN INTERESTING ARTICLE FROM THE GUARDIAN NEWSPAPER

WHAT HAPPENS WHEN A HUGE SHIP SINKS? A STEP-BY-STEP GUIDE TO AVERTING DISASTER

From the Ever Given blocking the Suez, to the Costa Concordia cruise ship hitting a reef, what exactly do you do when a vessel comes to grief – and how do you prevent catastrophic pollution?

At 3:24am in the Atlantic Ocean, a catastrophe unfolds across the moonlit waters. The MS Seascape – a 200-metre, six-storey cargo vessel carrying 4,000 new electric vehicles – is pushed by swells into a coral reef. The ship grinds to a sickening halt, begins listing violently to the side and capsizes on to the reef a few kilometres from port.

AN INTERESTING ARTICLE FROM THE GUARDIAN NEWSPAPER (CONTINUED)



Oops ... a US Coast Guard helicopter lifts crew from the Golden Ray, a 656ft vehicle carrier capsized in St Simons Sound, near Brunswick, Georgia, in 2019. Photograph courtesy of US Coast Guard

The coastguard receives the distress call. Helicopters lift the flailing crew members to safety, while support boats unload any cargo that hasn't already tumbled into the sea. It's urgent – lithium ion batteries in electric cars risk exploding and most of the vehicles are stored in the hold. If fire breaks out, the vessel will become a giant pressure cooker.

Although our MS Seascape is a hypothetical ship, its situation is far from uncommon. In 2021, 54 large vessels either sank, ran aground or went up in flames and these behemoths are more likely to cause catastrophe when things go wrong.

Abandoning the ships is rarely an option. The risks of oil and fuel leaks mean it is now standard practice to try to salvage them and fix any environmental damage. But the costs are astronomical: the Costa Concordia, which ran aground off Genoa, Italy in 2012, became the most expensive wreck removal in history, costing <u>more than \$1bn</u>, and taking 350 salvage workers almost three years. There's no cookie-cutter approach to salvage: each operation will vary depending on location, water depth, weather, equipment and sensitivity of the surrounding environment.

So what to do with our hypothetical MS Seascape? Let's get started.

Step 1: Contain spills and remove fuel

The risk posed by MS Seascape, loaded with potentially explosive car batteries, is not dissimilar to that of the 200-metre <u>Felicity Ace</u>, <u>which caught fire</u> in the mid-Atlantic before sinking to an unsalvageable 10,000ft: it is suspected that the <u>281 EVs onboard</u> may have sparked, or at least accelerated, the blaze.

The Guardian / <u>Continue reading this interesting article</u> [Thanks to ISCO member, Rupert Bravery, for sending in this article]

MESSAGES FROM EVENT ORGANISERS

NORWAY: NOSCA SEMINAR 2023: MARCH 20-24, 2023

NOSCA will arrange the next NOSCA Seminar in week 12/23 (20-24.03.23) in Bodø/Norway.

The seminar will focus on following topics:

- Early warning, remote sensing technologies
- Subsea dispersion
- Experiences from recent incidents

- Technology transfer: From traditional oil spill prevention to combat marine litter
- Observation of OKEA's large scale exercise "Draugen"

• Standardization project

Price: NOK 16.500 incl. hotel accommodations and all local transports. Please register by Dec 31, 2022 by using the link below (payment by Paypal) or send an email to <u>info@nosca.no</u> Our main topic will be "Tomorrow's challenges and solutions within oil spill response". Beside of two conference days, the seminar participants will be able to observe the large scale exercise "D1H" which will be carried out by NOFO and OKEA. For more information and registration please read <u>https://www.nosca.no/nosca-seminar/</u>

USA: COLORADO - CLEAN WATERWAYS 2023, DENVER, 11-13 APRIL, 2023

Clean Waterway takes place at the Hilton Denver City Center Hotel in Denver, CO, on April 11-13. <u>More News re conference &</u> <u>abstract submission</u> <u>Registration</u> <u>Introduction to the Planning Committee</u> <u>EXHIBIT SPACE AND SPONSORSHIPS ARE AVAILABLE</u> <u>Agenda. Updated information received on 8th February</u>

CROATIA: ADRIASPILLCON 2023, OPATIJA, 16th - 18th MAY, 2023

ADRIASPILLCON 2023 will be held in Opatija, Croatia, between 16 and 18 May 2023 and is being organized by ATRAC - Adriatic training end education centre for accidental marine pollution preparedness and response, with the support of the Ministry of Maritime Affairs, Transport and Infrastructure. The Conference, complemented with an exhibition of relevant products and services, aims at providing a forum for exchange of experience and knowledge in the fields of prevention, preparedness for and response to accidental marine pollution by oil and other hazardous and noxious substances (HNS), among the participants from the Adriatic region and their counterparts from other parts of Europe and the Mediterranean.

All the relevant information will soon be available on the Conference website https://adriaspillcon.com/.

CANADA: 45TH AMOP TECHNICAL SEMINAR ON ENVIRONMENTAL CONTAMINATION AND RESPONSE: EDMONTON, 6-8 JUNE 2023

The Seminar provides a forum for professionals working in the field of oil and hazardous materials spills. The forum facilitates the transfer of scientific results and is intended to link research and the operational community. All submitted papers are peer-reviewed by scientific and technical experts. The Technical Seminar features plenary sessions of 10- or 20-minute presentations on spill-related topics including Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE). Sessions will begin at 8:00 a.m. each day. The presentations are followed by a 5- or 10-minute question and answer period. Sessions may also conclude with Speaker's Corner presentations at which results of more recent research can be discussed without an associated paper. Government of Canada / <u>Seminar Information</u>

AUSTRALIA: BRISBANE - SPILLCON 2023: 11-15 SEPTEMBER 2023

The Australian Institute of Petroleum (AIP) and the Australian Marine Oil Spill Centre (AMOSC) invite you to attend the international oil spill conference for the Asia-Pacific region, Spillcon 2023.Spillcon 2023 will bring together local, regional and global environmental and shipping representatives across industry, government and non-government organisations to provide an avenueto discuss issues including causes and prevention, preparedness, response management and environmental issues. Spillcon 2023 has been confirmed for 11 – 15 September 2023 at the Brisbane Convention and Exhibition Centre, Queensland, Australia. This website will be regularly updated with further information for sponsors, exhibitors and delegates. https://www.spillcon.com/

USA: CLEAN GULF CONFERENCE & EXHIBITION – SAN ANTONIO, NOVEMBER 7-9, 2023

Time is running out for submission of absracts - Deadline is 24th February. For more info and list of topics, click HERE

Now Accepting Reservations for Exhibit Space and Sponsorships for CLEAN GULF 2023 - Make an impact on buyers from oil & gas, maritime, rail, environmental companies and regulatory agencies with an exhibit space or sponsorship at the <u>CLEAN GULF</u> <u>Conference & Exhibition</u>. Attendees at CLEAN GULF are looking for new products, services, and technologies to help them better prepare or respond to a hazardous spill or environmental emergency.

USA: IOSC 2024 CALL FOR PAPERS AND POSTERS REMINDER

The International Oil Spill Conference (IOSC) brings together the broadest range of global oil spill response professionals to discuss the latest research, technology, and resources impacting our community today. Submit a proposal to become a leader at our next convening in New Orleans, Louisiana, May 13 - 16, 2024.

Click on <u>https://ssl.linklings.net/conferences/IOSC/</u> to visit the submission site. Then, select the "Create an Account" tab at the top of the page to begin your submission. All submissions are due April 24, 2023

CONTRACTS, TENDERS AND BUSINESS OPPORTUNITIES

INTERNATIONAL OPEN TENDER NOTIFICATIONS

This is a subscription service. https://www.tender247.com/keyword/oil+spill+tenders+global

OTHER OPPORTUNITIES: USA & EUROPE

US Government solicitations are frequently posted in Technology Innovation News Survey <u>https://clu-in.org/products/tins/</u> US EPA Tech Direct <u>https://clu-in.org/techdirect/archive/</u> and USA Federal Contracts Updates <u>https://clu-in.org/Federal-Contract-Opportunities</u> European Maritime Safety Agency invitations to tender are often posted in The EMSA Newsletter <u>https://www.emsa.europa.eu/newsroom/newsletters.html</u>

EMSA HAS LAUNCHED A NEW PROCUREMENT PROCEDURE FOR SERVICE CONTRACT FOR EQUIPMENT ASSISTANCE SERVICE (EAS) IN THE BALTIC SEA AND THE NORTH SEA. <u>More info</u>

JOB VACANCY

USA: DIRECTOR, NATIONAL SPILL CONTROL SCHOOL

TAMU-CC is a dynamic university designated as both a Hispanic-Serving Institution (HSI) and Minority-Serving Institution (MSI) with approximately 11,000 students from 47 states and 54 foreign nations. We employ over 1,400 full-time and 2,000 part-time Islanders (including students/GAs). The University attracts highly talented faculty and staff and offers an array of undergraduate and graduate degrees, including doctoral programs. As a member of the Texas A&M University System, TAMU-CC benefits from a range of resources, increased visibility and influence, and opportunities to collaborate in mutually beneficial ways with peers across member institutions and associated agencies.

TAMU-CC's beautiful campus is located on a 240 acre island on Corpus Christi Bay and was ranked #1 College by the Sea by Best College Reviews. Our natural setting is enhanced by its modern, attractive, and state-of-the-art classroom buildings and support facilities. From our generous benefits package and professional development opportunities, to our retirement programs and our commitment to service excellence, the Island University is an engaging and rewarding place to work.

For more information and details on how to apply, please visit -

https://tamus.wd1.myworkdayjobs.com/en-US/TAMUCC External/job/Corpus-Christi-TX/Director--National-Spill-Control-School R-056071

LINKS FOR DOWNLOADING AND READING OTHER PUBLICATIONS

TO VIEW LINKS FOR DOWNLOADING AND READING OTHER PUBLICATIONS PLEASE CLICK ON

https://spillcontrol.org/2021/10/19/links-for-downloading-and-reading-other-publications/

As a service to its Menbers ISCO provides a listing of publications that may be of interest to our community. This page provides details and links for downloading more than 40 publications most of which can be accessed at no cost. ISCO depends on regular receipt of updated URL links for listed publications. If these are not received, relevant entries will be discontinued.

INCIDENT REPORTS

MARITIME ACCIDENT REPORTS FROM THE MARITIME BULLETIN www.maritimebulletin.net

USA: TRAIN DERAILMENT IN NORTHEASTERN OHIO SPARKS MASSIVE FIRE

February 4 - A Norfolk Southern train with more than 100 cars derailed in East Palestine, about 15 miles south of Youngstown, according to the National Transportation Safety Board. There were 20 cars with hazardous material in the train – 10 of which derailed. Of those 10, five were carrying vinyl chloride, the NTSB said Saturday night. CNN News / <u>Read more</u>

February 6 - Toxic chemicals burn over Ohio derailment site during controlled release - Toxic fumes began billowing over northeastern Ohio on Monday afternoon as authorities aimed to mitigate a potential explosion from derailed tanker cars that were carrying hazardous materials. The "controlled release" of vinyl chloride, a colorless compound that is a human carcinogen and can be deadly if inhaled, "involves the burning of the rail cars' chemicals," Ohio Gov. Mike DeWine (R) said in a statement Tuesday. The Washingtom Post / <u>Read more</u>

February 8 - Evacuation order lifted for residents near where train carrying hazardous chemicals derailed - Residents near where a train derailed in East Palestine, Ohio, may return home after an evacuation order was lifted Wednesday, officials said. Air and water samples were analyzed overnight, and the results led officials to deem it safe, East Palestine Fire Chief Keith Drabick said at a news

INCIDENT REPORTS (CONTINUED)

conference Wednesday afternoon. The train carrying hazardous materials, including the toxic chemical vinyl chloride, derailed five days ago in the village of 5,000 people near the Pennsylvania border. The wreckage burned for days, threatening a widespread, deadly explosion before crews Monday managed controlled detonations to release the chemical that can kill quickly at high levels and hike cancer risk. Workers used small charges to blow a tiny hole in five rail cars carrying vinyl chloride. The hazardous substance spilled into a trench, where it was burned away. CNN News / <u>Read more</u>

PAKISTAN: OIL SPILLS IN MALIR RIVER DUE TO LEAKAGE IN SUPPLY LINE

February 6 - oil spilled in the Malir River after a leakage in the main supply line of the refinery, reportedly caused by the accused to steal oil. After getting the information about the leakage, the staff of the refinery reached the spot and started repair work on the leaked oil supply line. Ary News / Read more

PHILIPPINES: TUGBOAT SINKS OFF BATANGAS, TRIGGERS OIL SPILL — PCG

February 8 - "Due to strong waves, the water flooded inside the motor tug, causing it to submerge yesterday, 08 February 2023. During the initial assessment, the PCG team discovered that oil spilled in the surrounding area and scattered along the port," the PCG said in a statement. According to authorities, the oil spill is around 300 square meters wide. Inquirer / <u>Read more</u>

VENEZUELA: OIL SPILLS HIT PDVSA'S OPERATIONS IN EASTERN VENEZUELA -SOURCES

February 9 - At least two oil spills in recent days have hit Venezuela's crude distribution in the country's eastern region and both remain unaddressed by state-run oil company PDVSA, according to four people with knowledge of the incidents.

A large spill was detected in mid-January at PDVSA's J-20 station in the Morichal field in Venezuela's eastern Monagas state. Photos and videos seen by Reuters on Thursday showed hydrocarbons in waters surrounding an oil flow station. The spill, which could be as much as 50,000 barrels thus far, could soon reach the neighboring La Pica river, the people said. PDVSA has inspected but not taken action to resolve the issue. Reuters / <u>Read more</u>

SRI LANKA: X-PRESS PEARL'S WRECK LIFTED FROM OCEAN FLOOR



Photo courtesy of Sri Lanka MEPA

February 10 - Sri Lanka's Marine Environment Protection Agency (MEPA) is expecting the remaining components of the containership X-Press Pearl to be removed by this week.

Safety4Sea / Read more

RUSSIA: OIL SPILL DISCOVERED IN NIZHNYAYA KAMA NATIONAL PARK

February 12 - An oil geyser blew in the Nizhnyaya Kama National Park. Oil workers and specialists from Rosprirodnadzor urgently left for the emergency site. It is already known that the area of farmland pollution in the Mendeleevsky region amounted to almost 800 thousand square meters. Blitz / <u>Read more</u>

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 www.spillcontrol.org and your acceptance of ISCO's Data Protection and Privacy Policy.