ISCO NEWSLETTER

The Newsletter of the International Spill Response Community

Issue 366, 7 January 2013

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A HAPPY NEW YEAR TO ALL OUR READERS

Headline news

SAGA OF THE KULLUK OIL RIG IN THE GULF OF ALASKA

The conical drilling unit Kulluk sits aground on the southeast shore of Sitkalidak Island about 40 miles southwest of Kodiak City, Alaska, in 40 mph winds and 20-foot seas tuesday, Jan. 1, 2013. the Kulluk grounded following many efforts by tug and coast guard crews to tow the vessel to a safe harbor when it was beset by winter storm weather during a tow from Dutch Harbor, Alaska, to Everett, Wash. Petty Officer 1st class Sara Francis — U.S. Coast Guard.

Headline news (continued)

Kuluk events timeline from Anchorage Daily News

Download link - **http://media.adn.com/smedia/2013/01/01/22/05/fM3PT.So.7.pdf#storylink=relast**

Tug towing Shell drill ship has engine trouble off Kodiak

December 27- The failure of a towing vessel's engine left a Royal Dutch Shell PLC drill ship stalled Friday in rough Gulf of Alaska water 50 miles south of Kodiak Island.

A relief tug plowed through 20-foot waves and winds of 40 mph Friday afternoon to reach the Kulluk, one of two drill ships Shell operated this year in the short Arctic Ocean open water season, and the vessel that had been towing it, the 360-foot Aiviq. *Anchorage Daily News* Read more

Shell drill rig grounds off Kodiak Island after towline failures

December 31 - Two flights over the grounded Shell drilling rig Kulluk on Tuesday found no sign of a hull breach or fuel spill, the U.S. Coast Guard said Tuesday.

"The Kulluk herself seems to be stable," Coast Guard Capt. Paul Mehler said at a briefing Tuesday afternoon in Anchorage. *Anchorage Daily News* Read more

At grounded Alaska oil rig, response crews on tense standby

Crew members from the Kulluk oil rig are safely returned to Air Station Kodiak following a rescue in heavy seas from the rig, which grounded in southern Alaska. (U.S. Coast Guard / AFP/Getty Images / December 29, 2012)

January 2 - Coast Guard emergency teams continue to wait and watch a grounded oil rig in southern Alaska on Wednesday morning for signs of leakage. Stormy weather is delaying efforts to get people onto the Kulluk rig to make a closer assessment. Meanwhile, a "full-scale" response operation is being marshaled -- just in case.

"There's no sign of any leakage," Coast Guard spokesman Sam Sacco told the Los Angeles Times on Wednesday. "Just as a contingency, a full-scale response operation is being put in place, but the fact is, there is no leakage of chemicals into the water." *Los Angeles Times* Read more

Salvage experts board grounded Shell drilling rig

January 2 - The weather improved a bit in the vicinity of the grounded Shell drilling rig Kulluk Wednesday morning, allowing a Coast Guard helicopter to drop a team of salvage experts to its deck to inspect the crippled vessel. *Anchorage Daily News* Read more

Grounded Alaska oil rig sustains damage; Dems call for investigation

January 3 - The Kulluk oil rig, grounded in the powerful Gulf of Alaska surf, has sustained damage to electrical generators and top areas where water breached hatches, according to an initial assessment by a salvage team. *The Seattle Times* Read more

Rig Grounding Revives Debate Over Shell's Arctic Drilling

January 4 - This week's grounding of a rig off the coast of Alaska adds to a series of mishaps in Royal Dutch Shell Plc (RDSA)'s seven-year quest to tap the vast oil reserves of the Arctic and emboldened critics who say it can't be done safely. *Bloomberg News* Read more

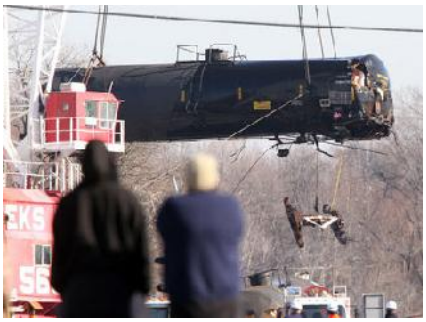
Other incident reports

USA: RESPONSE TO MASSIVE KILL VAN KULL OIL SPILL CONTINUES

December 14 - The US Coast Guard, Gallagher Marine Systems, New York State Dept. of Environmental Conservation and New Jersey Dept. of Environmental Protection have established a Unified Command to effectively run the response as well as deploying staff and response contractors in the field to deal with this spill. *The Maritime Executive* Read more

Other incident reports

USA: PAULSBORO TRAIN DERAILMENT: FINAL THREE RAIL CARS MOVED, DAMAGE ASSESSMENT OVER $700,000



December 17 - Two weeks after a Conrail train derailed at the East Jefferson Street Bridge, the line returned to service over the weekend.

This news came as federal investigators released a preliminary report that does not indicate a cause for the wreck, which sent tanker cars into Mantua Creek. One of those tankers ruptured, releasing 180,000 pounds of vinyl chloride.

National Transportation Safety Board (NTSB) issued its one-page preliminary report Monday, indicating the train was traveling at 7 mph when it crashed. The report also placed a $721,114 price tag on the incident, though that figure does not include environmental remediation costs. *NJ.com* Read more [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

USA: TANKER'S OUTER HULL PIERCED

December 20 - A double-hulled oil tanker carrying nearly 12 million gallons of North Dakota crude oil — the first such shipment from the Port of the Albany — was damaged Thursday morning on the Hudson River near Henry Hudson Park in Bethlehem. Reports as to how and why the vessel began taking on water were conflicting.

The incident at about 9:15 a.m. punctured the outer skin of the hull and the ship took on water and began listing heavily to the starboard side, but the second hull was not breached and no oil appeared to have spilled, according Albany port officials and the U.S. Coast Guard. *Timesunion.com* Read more [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

NIGERIA: BURNING PIPELINE FIRE SIGN OF NIGERIA'S WOES

December 21 - The gasoline pipeline burns unstopped near a village close to Nigeria's sprawling megacity of Lagos, shooting flames into the air as leaking fuel muddies the ground. All around it, the ground is littered with plastic jerry-cans, used by those who hacked into the line to steal the fuel within.

This pipeline explosion happened Monday in Ije Ododo, in a swampy mangrove forest in the western fringe of the sprawling city of Lagos. Officials say the explosion happened when locals tapped into the pipeline to steal the refined gasoline moving through it. A spark from the scavengers likely set the line ablaze. It's unclear how many people were injured by the initial blast. *Huffington Post* Read more

MALAYSIA: SPILL REPORTED FROM LISTING OIL TANKER NEAR LABUAN, 7 RESCUED

December 27 - On Christmas day, an oil tanker began listing near Labuan. Nearly 400 gallons of oil out of the 53,000 gallons in the ship's hold spilled in the surrounding waters. About 30% of the vessel has sunk.

The tanker, RAMAI DUA, sent out a distress call to the Malaysian Maritime Enforcement Agency, but search and rescue efforts failed due to high waves. These conditions also hindered efforts to contain the oil leak. *The Maritime Executive* Read more

Other news

ITALY: 60 MINUTES SPECIAL: SALVAGING THE COSTA CONCORDIA

December 17 - 60 Minutes aired a special last night on the salvage of the Costa Concordia, giving viewers an inside look at Titan Salvage and Micoperi's operation to remove the ship, in one piece, from the waters off the island of Giglio. For those who missed it, here it is for your viewing pleasure. *gCaptain* View the video

LAUNCH OF THE NEW IOPC FUNDS' WEBSITE IN FRENCH AND SPANISH

The Secretariat is delighted to announce that the French and Spanish versions of the new IOPC Funds' website are now fully operational and can be found at www.fipol.org and www.fidac.org respectively. Navigation to the French and Spanish sites is also possible via the English site, www.iopcfunds.org and vice versa.

Feedback on the new website would be appreciated. Please send any comments to the Secretariat at feedback@iopcfund.org
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YEMEN: LAWS ISSUED RATIFYING YEMEN'S ACCESSION TO OPRC, OPRC-HNS PROTOCOL

December 22 - The law No. 21 for 2012 was issued on Saturday ratifying Yemen's accession to the International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC).

Another law No. 22 for 2012 was issued approving Yemen's accession to the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances 2000 (OPRC-HNS Protocol). *Yemen News Agency* Read more

BRAZIL: CHEVRON TO PAY $150 MILLION IN BRAZIL OIL SPILL CASE

Chevron Corp. has agreed to pay roughly $150 million to settle Brazilian civil lawsuits stemming from a November 2011 oil spill.

December 17 - The 3,600 barrel spill, which occurred in the Frade oil field near Rio de Janeiro, led to the largest environmental prosecution in Brazil's history, as prosecutors initially sought up to $20 billion in damages. In August, a three-judge panel in Brazil upheld an injunction banning Chevron and its drilling contractor Transocean Ltd. from conducting business in Brazil.
Inside Counsel Read more [Thanks to ISCO Executive Committee Member, Marc K. Shaye]

US REP. CALLS FOR TIGHTER RULES FOR TRAIN INDUSTRY

December 6 - Federal regulations require inspections of rail bridges and other freight train-line infrastructure and reports on accidents, but leave it to rail line owners to do it themselves.

After a derailment that released thousands of gallons of a hazardous chemical into the air last week in New Jersey, forcing more than 200 households to be evacuated, a congressman from the area said Wednesday that it is time to end what he called "a culture of self-regulation" for the industry. *Yahoo News* Read more

NIGERIA: ECOWAS COURT FINDS FG LIABLE ON NIGER DELTA

December 17 - The ECOWAS Community Court of Justice sitting in Ibadan, the Oyo State capital has found the Federal Government liable the alleged violation of human rights and associated oil pollution of the people of the Niger Delta by the six oil companies.

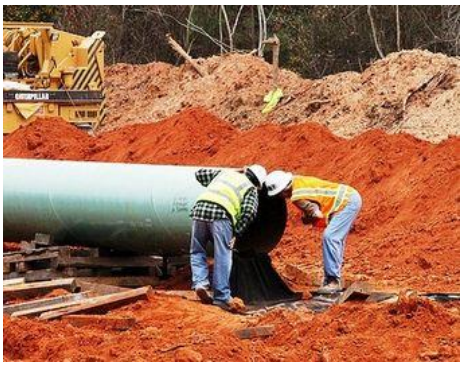
In about two-hour judgment delivered by the Vice-President of the court, Justice Benfeito Mosso Ramos, on behalf other Justices, the court emphasised that the Federal Government's non-challant attitude was grossly responsible for the environmental pollution primarily caused by the oil multi-national corporations that was causing food scarcity, poverty, sickness and so on to the people of the Niger Delta.

The judgment followed a litigation filed by the Registered Trustees of the Socio-Economic Rights and Accountability Project (SERAP) against the Federal Government and six oil companies over alleged violation of human rights and associated oil pollution in the Niger Delta. *This Day Live* Read more

USA: KEYSTONE XL WOULD NOT USE MOST ADVANCED SPILL PROTECTION TECHNOLOGY

Picture: Workers examine pipe being used for the southern leg of the Keystone XL pipeline. Credit: Steven DaSilva, Fredonia Rebel Post, flickr

December 20 - The leak detection technology that will be used on the Keystone XL, for instance, is standard for the nation's crude oil pipelines and rarely detects leaks smaller than 1 percent of the pipeline's flow. The Keystone will have a capacity of 29 million gallons per day—so a spill would have to reach 294,000 gallons per day to trigger its leak detection technology.



The Keystone XL also won't get two other safeguards found on the 19-mile stretch of the pipeline over Austin's aquifer: a concrete cap that protects the Longhorn from construction-related punctures, and daily aerial or foot patrols to check for tiny spills that might seep to the surface.

Experts interviewed by InsideClimate News estimate it would cost less than $10 million—roughly 0.2 percent of the Keystone's $5.3 billion budget—to add external sensor cables, a concrete cap and extra patrols to the 20 miles of the pipeline in Nebraska where a spill would be most disastrous. The water table in that area lies less than 20 feet below the surface and provides ranchers with a steady supply of fresh water.

TransCanada, the company that wants to build the Keystone XL, says the project meets or exceeds federal pipeline standards. In June, Russ Girling, TransCanada's president and CEO, said it will be "the safest, most advanced pipeline ever built in North America." *InsideClimate News* Read more

DENMARK: GRAVE CONCERNS OVER OIL SPILL RESPONSE CAPABILITY

Picture: When the Chinese cargo ship, Fu Shan Hai, sank off the coast of Bornholm and leaked oil in 2003, it was the Swedish coast guard that handled the massive clean up task (Photo: Scanpix)

December 17 - Denmark's ability to respond to a major maritime oil or chemical spill has come under fire from a number fronts for being out-of-date, fragmented and "unacceptable".

An internal military report concluded that the two primary clean-up ships, 'Gunnar Seidenfaden' and 'Gunnar Thorson', are only able to deal with non-dangerous oil spills

The reason is that the ships, which fall under naval command, are not equipped with crew areas that can keep out harmful gases being released from substances the ships collect or with electrical and machine installations that ensure that explosive gasses are not ignited.

"If we arrive at the scene of a oil or chemical spill that we don't know the contents of then I have to tell the Navy that it is a task that I'm unable to accept because I will endanger the lives of my crew," Øjvind Bach, the captain of the 'Gunnar Seidenfaden', told DR News. "There is a risk of oil fumes entering the ship and that is simply dangerous to the crew." *The Copenhagen Post* Read more

CHINA: REGULATIONS OF THE PEOPLE'S REPUBLIC OF CHINA ON THE PREVENTION AND CONTROL OF MARINE POLLUTION FROM SHIPS

December 13 - On 14th September 2012, the China MSA issued revised Detailed Rules on the Implementation of the Administration Regime of Agreement for Ship Pollution Response amending the Detailed Rules previously issued by the China MSA which came into effect on 1st January 2012. The revised Detailed Rules had immediate effect. At the same time, the China MSA repealed a number of Notices on implementation of the Regulations, which has resulted in some changes to the previous spill response requirements. A further MSA Notice is expected to be issued shortly after which a revised set of Frequently Asked Questions (FAQs) will be published by Clubs. We shall be informing you accordingly in due course.

The China MSA has also issued an amended model of spill response contract as an annex to the revised Detailed Rules.

The amended model contract includes two new mandatory articles requiring (a) booming during ship-to-ship transfers' and (b) that the Spill Response Organizatio (SPRO) assists in joint emergency exercises (Article 2.4 and 2.5). Furthermore the model contract expressly provides that supplemental articles may be included as part of the agreement between the operator and approved contractor.

The International Group has maintained contact with the China MSA since the publication of their revised Detailed Rules and understands that the recommended contract attached to this newsletter (which does not differ substantially from the previous recommended contract) is consistent with the revised Detailed Rules. The recommended contract conforms with the International Group's Guidelines for acceptable spill response contracts.

Read more and view Sample Agreement for Ship Pollution Response at -
http://www.plferrari.com/public/file/circulars/25_PLF_circulars_13-12.pdf

[This news item was reproduced with the kind permission of P. L. Ferrari & Co., P& I Insurance Brokers and was originally published in the December 2012 issue of the company's newsletter]

USA: GULF OF MEXICO - ROV WRAPS UP INVESTIGATION

December 18 - Remote operated vehicles (ROV) investigating the recurring sheen near the MC 252 wellhead concluded operations Saturday, Dec. 15, 2012. ROVs inspected the sunken Deepwater Horizon Platform wreckage and the surrounding area.

No sources of leaking oil were identified. During operations, an unidentified substance inconsistent with oil was seen emitting from several areas of the rig wreckage, and samples were collected for further lab analysis. *Restore the Gulf.gov* Read more

USA: 'FRACKING' RULES PROPOSED FOR CALIFORNIA

December 18 - California on Tuesday issued its first-ever fracking regulations as companies seek new sources of oil and gas long locked in rock.

Last year, at least 628 fracking operations occurred in the state, according to a voluntary oil industry survey, but the state has had no rules requiring public notification, disclosure of chemicals used and other key issues surrounding the practice.

Mercury News Read more, including the new draft rules

CHINA OPENS DISASTER RESEARCH LABORATORY

December 18 - A Chinese government laboratory has been set up to research technologies to minimize the damage of nuclear and biochemical disasters, officials said.

The lab in Beijing will focus on ways to evaluate and monitor damage and to protect people, facilities and the environment in the event of such disasters, Pei Chengxin, the lab's director, said. *Terra Daily* Read more

AUSTRALIA: AMSA AND CSIRO JOIN FORCES TO IMPROVE MARITIME INCIDENT RESPONSE

December 19 - The Australian Maritime Safety Authority (AMSA) and CSIRO are joining forces to tackle major maritime pollution incidents.

Under a Memorandum of Understanding, ASMA will draw on the scientific knowledge and technical support of CSIRO before, during and after a maritime environmental incident, such as an oil spill, to help understand the impact of pollution on the surrounding marine environment.

The CSIRO/AMSA Scientific Support Agreement was developed following recommendations of the recently completed Review of the National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances and the Montara Commission of Enquiry. *The Maritime Executive* Read more

NIGERIA: SHELL MUST FACE UP TO ITS LIABILITIES IN THE NIGER DELTA

Dec 10 - The shareholders of Royal Dutch Shell could be waking up to a multi-billion dollar headache this morning, after a University of Essex report concluded that the FTSE-listed company is responsible for cleaning up the mess it has made of the Niger Delta. The findings are the results of nearly two years of research.

The Niger Delta, an area roughly the size of Scotland, used to be a picturesque wetland. It is home to 31 million people, but over the past six decades, many of the villagers there have seen their livelihoods devastated by oil pollution.Commercial oil production began in the region in 1958 after the discovery of crude oil at Oloibiri by Shell British Petroleum (now Royal Dutch Shell). Today, the oil industry is highly visible in the area. Royal Dutch Shell's subsidiary Shell Nigeria alone operates over more than 31,000 square kilometres. Over that period there have been thousands and thousands of oil spills. Between 1976 and 2001 the United Nations Development Programme recorded 6,800 spills. *Al Jazeera* Read more

People in the news

USA: EPA CHIEF LISA JACKSON STEPS DOWN AFTER 4 FIERY YEARS

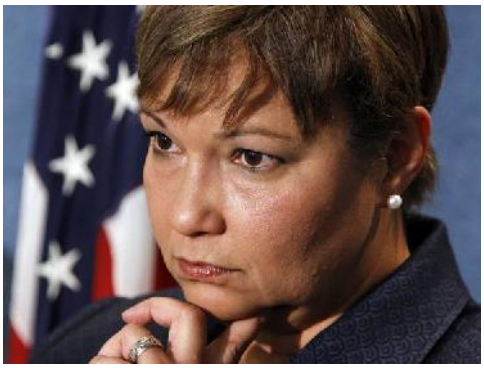


Photo: Environmental Protection Agency Administrator Lisa Jackson listens during a news conference at the National Press Club in Washington on Oct. 21, 2010. (Photo: Alex Brandon, AP)

December 27 - Environmental Protection Agency chief Lisa Jackson announced Thursday that she's stepping down after a four-year tenure marked by her agency's first greenhouse gas regulations and repeated battles with industry groups and GOP lawmakers.

Jackson, the first African American to serve as EPA administrator, came into office with bold plans to address climate change but accomplished only part of her agenda, foiled by opposition on Capitol Hill and occasionally the White House. *USA Today* Read more

ISCO News

NEW MEMBERS AND AWARDS OF PROFESSIONAL RECOGNITION

This year it will be 30 years since David Usher and John McMurtrie first discussed the formation of ISCO during the International Oil Spill Conference held at San Antonio in Texas in 1983. With the launch of ISCO's Professional Recognition initiative the Membership Committee has recommended that it would be appropriate to recognise the anniversary of this historic event in the first awards of honorary fellowship of ISCO. It has also been recommended that the unstinting support and active contribution made over many years by Rear Admiral M. L. Stacey CB, Marc Shaye and Dan Sheehan be similarly recognised. Also, with the introduction of the new classes of ISCO Membership, existing Honorary Members of ISCO have become Honorary Fellows (Hon.FISCO).

Following on completion of assessment by the Membership Standards Committee, we are also pleased to announce election of new Fellows (FISCO), Members (MISCO) and Associate Members (AMISCO). We also welcome a number of new Corporate Members, Industry Partners and Individual Members who have recently joined the organization.

Honorary Fellows (Hon.FISCO)

Mr David Usher (USA)
Mr John McMurtrie (UK)
Rear Admiral M.L. Stacey, CB. (UK)
Mr Marc Shaye (USA)
Mr Dan Sheehan (USA)
Dr Douglas Cormack (UK)
Dr Wierd Koops (The Netherlands)
Mr Duncan Lyon (UK)

Fellows (FISCO)

Mr Jan Allers (Norway)
Captain Bill Boyle MNI (UK)
Mr John Østergaard (Sweden)
Mr Simon Rickaby (UK)

Members (MISCO)

Mr Nick Bailey (UK)
Mr William E. Baird (USA)
Mr Steve Guy (UK)
Mr Tony Harmer (UK)

Members (MISCO) (continued)

Mr Carlos Sagrera (Uruguay)
Mr Simon Valentine (UK)

Associate Member (AMISCO)

Mr Nelson Sunday (Nigeria)

New Corporate Members

Chukar Waterjet, Inc. (USA)
Sintac-Polska Sp. z.o.o. (Poland)

New Industry Partner

Varichem de Colombia (Colombia)

New Individual Members

Mr Paul van Gastel (Belgium)
Mr Jaime Hernandez (Mexico)
Mr Osvaldo Nogueira (Brazil)
Mr Ilidio Franco Santos (Portugal)

NEW APPLICATIONS FOR AWARD OF PROFESSIONAL RECOGNITION

If you missed the 31 December 2012 deadline for inclusion in the first tranche of applications to be assessed by the Membership Standards Committee, please note that the next meeting of the Membership Standards Committee will take place during

ISCO News (continued)

March,2013 and applications should be received no later than 28 February 2013. Announcement of awards will be made early in April 2013.

All of the information about Professional Membership of ISCO can be found on the ISCO website at http://www.spillcontrol.org

Cormack's Column

In this issue of the ISCO Newsletter we are printing No. 108 in a series of articles contributed by Dr Douglas Cormack.

Dr Douglas Cormack is an Honorary Member of ISCO. As the former Chief Scientist at the British Government's Marine Pollution Control Unit and head of the UK's first government agency, the Warren Spring Laboratory, Douglas is a well known and highly respected figure in the spill response community. He is the Chairman and a founder member of the International Spill Accreditation Association

CHAPTER 108: KNOWLEDGE OF THE SEA EMPRESS INCIDENT

On comparing the distillation yields at differing temperatures below 250°C, as in the Oil Groups I-!V (articles 39 et seq), with the Ekofisk distillation yield of 33% at 250°C and the measured loss of volatile components after 8 hours exposure at sea which stabilised at about 35% in summer conditions and at about 25% in winter conditions as observed by WSL in trial releases and at the blow-out, we see that evaporative loss from Forties in winter conditions could have been expected to be about 32%. However, the consequences of a 40% loss could also have been considered, the MPCU data being assumed to relate to the actual Forties blend onboard the *Sea Empress*. Again, in common with all liquid crude oils the emulsion volume of the non-volatile fraction at 70-80% water content could have been expected to be four times the volume of its oil content, though about 63% was assumed for deriving volumes of emulsion from volumes of oil by multiplying the former three times.

As to the volatiles, these have been detected by their odour by coastal communities close to casualties and they should always be reassured that there is no danger at the atmospheric concentrations involved, the danger of explosion being confined to the casualty itself and the danger of fire being confined to its immediate vicinity, though onboard fire has incommoded coastal communities with smoke and smuts concerning which they should also be informed, reassured and guided in good time as they were at the *Sea Empress Incident* during which the personnel onboard were evacuated on two occasions though no fire or explosion occurred.

As to viscosity and half-life of the non-volatile emulsion, comparison of the °API value of 36.6 with the range of values of Group III oils (17.5-36) and of viscosity of 8cSt at 15°C listed for Forties in the Group 111 Table with those listed in the Table of article 107, we see that the cargo of the *Sea Empress* was at the lower, less persistent end of the viscosity range of Group III oils. On the other hand, its asphaltene value, though low for oils in general (c.f. article 100), is high at 0.2-0.3 for North Sea oils, that of Ekofisk being 0.03 wt%.

Thus, the half-life of the Forties blend at the *Sea Empress Incident* could have been placed in the middle of the 24-48 hour range *i.e.* in 30-42 hour range, though with this guidance, direct observation could have given a more precise value (c.f. article 107). As to the heavy fuel oil onboard, plots of viscosity against temperature for the three grades and reference to their respective half-life ranges (c.f. article 42) could have suggested the middle half-life range of 4-6 days in the absence of observed solidification, enquiry, or direct measurement of the actual viscosity. Again, with heavy fuel oil emulsions being about 50% water, the emulsion volume could have been expected to be double that of the amount released as is usually the case for heavy fuel oils.

As to the salvage of ship, cargo and bunkers, the circumstances closely approached the ideal in respect of both opportunity and need. Thus, the discharge berth to which the ship had been heading was only a few miles further up the haven, while the need to remove it from its location of exposure to winter gales from the southwest and from proximity to the rocky seabed on which it had already grounded more than once could not have been more obvious. Again, whatever difficulties were cited to explain why this opportunity was not taken nor the need satisfied, they appear to have been overcome speedily enough when the decision was finally taken to move the casualty to Herbrandston Quay where 58,000 tonnes were discharged, though not until an additional 67,000 tonnes had been lost through successive groundings and successive hull and tank damage, none of which prevented the ultimate move to Helbrandston Quay for discharge or indeed to Belfast for subsequent dry-docking.

1 The *Rational Trinity: Imagination, Belief and Knowledge*, D.Cormack, Bright Pen 2010 available at www.authorsonline.co.uk
2 *Response to Oil and Chemical Marine Pollution*, D. Cormack, Applied Science Publishers, 1983.
3 *Response to Marine Oil Pollution - Review and Assessment*, Douglas Cormack, Kluwer Academic Publishers, 1999.

RESPONSE TO INLAND OIL SPILLS – PART 3

A short series of articles contributed by Mark Francis of Oil Spill Solutions

Mark Francis has been involved with the oil industry since 1975. He attended his first oil spill in 1976, the Tanker Elaine V incident. He became head of response for inland spills within the UK for British Petroleum E & P in 1980 for 10 years responding to well, storage tank and pipeline spills throughout the UK. Over the next 20 years he continued to build his international operations experience and has also specialised in spill response training, delivering IMO and other courses in more than 20 countries. Mark's website is at http://oilspillsolutions.org

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Containment on permeable surfaces (continued)

If you have no other sorbent products available, dry sand or earth may soak up a spill of oil or chemicals. Sand bags can be used to channel substances to a collection point, to block off drains, contain spills or to dam ditches. Once contaminated, sand and sand bags should be properly disposed of and not washed into drainage systems.

Drain mats or surface drain seals seal a drain by covering the surface of a manhole cover or drainage gully. They stop liquid flowing into the drainage system and help contain it. There are different types, including clay mats and water-filled bags. Clay mats are single use but you may be able to have other types cleaned for re-use.

Keep drain mats close to where they might be used. Identify where liquid that is held back by a drain mat will collect as you may need to keep people away from it until it can be cleaned up.

Photo left shows oil spilled on an impermeable running to a permeable surface where it will penetrate the soil under the influence of gravity and capillarity action.

Photo right shows a mat with a synthetic gel in the under part. The gel is heavy and flexible and seals with the ground as well as closing of the slots in the drain, closing it of to oil flow.

Photo right (below) shows a yellow version of the mat. I have not used this type but am just showing that there are other manufactures making similar products.

Photo left shows the sad fact that some people do not have respect for our environment**.**

The blue and white sticker says (Don't Dump Save Your Creek). It is difficult to understand why someone would dump oily waste including a vehicles oil filter

If the spill has spread so far that it's already entered the drainage system, try to stop it. If you can close the drainage system, you may be able to use its capacity as a temporary containment system to hold the pollutant safely until it can be dealt with properly. In some cases, it may be possible to hose any remaining spilt material into the sealed drainage system, allowing the incident to be dealt with more quickly and safely.

You must also be aware of what will happen to overflows from gullies and other entry or exit points to the drainage system. This will vary depending on where the drain flows to, slopes and weather conditions. Contaminated liquid may back up and discharge through storm overflows, collect in areas of the site or overflow and bypass the drainage system.

High rainfall will reduce the capacity of your drainage system and create higher volumes of contaminated water. It may cause flooding if the drains back up that could create a hazard itself. If your pollution incident response plan includes the option to contain spills in the drainage system, consider separating your roof and yard drainage from areas where a spill is likely and other site drainage.

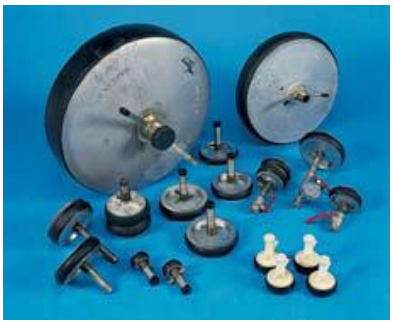
Special feature (continued)

Oil separators are designed to contain spills of hydrocarbons and other liquids that are lighter than, and don't mix with, water. They won't contain soluble substances such as soluble oils, biofuels, emission reduction solutions e.g. solvents that mix with water. An oil separator will not work properly if degreasing agents or detergents can drain to, or are put into, it.

Oil separators can be fitted with manual or automatic closing penstock valves at both inlet and outlet to contain larger spills. If you have a spill that has entered the drainage system, it may be possible to close the entrance to the separator to stop it becoming

overwhelmed and protect it, or close the exit valve to allow the spill to collect in the separator. If your incident response planning includes using separators to contain large spills of hydrocarbons, you should not use bypass separators.

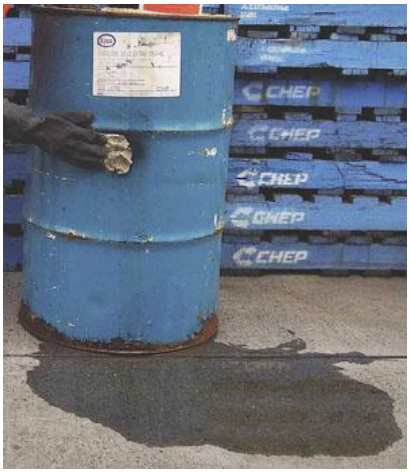
Check the separator after any spill has entered the drainage system and have it emptied and maintained if needed. Oil spills may have reduced your separator capacity and other spills may affect how well your separator works. Use a specialist contractor to maintain your separator.



If your drainage system does not have shut-off valves that you can close in an emergency, or they are not in suitable places, you may be able to seal your drainage system using pipe blockers. These can be fitted inside a pipe or gully. They're usually purpose-made bags or tubes which are inflated with air, although a drain bung *right* can also be effective.

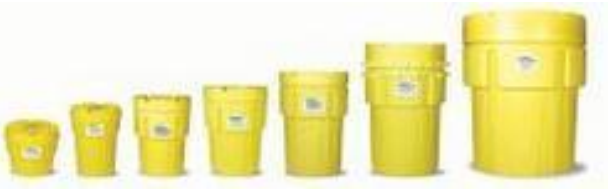
Old football bladders have been pushed into small culverts and inflated to close them off.

Make sure the pressure head of the contained liquid doesn't cause the pipe blocker to fail.



One of the simplest ways to block a leaking container or pipe is to cover the hole with a temporary sealant. Leak sealing putty is available either ready mixed, or as a powder you mix with water. You should follow the manufacturer's instructions to apply the putty. A more permanent method may be required before you can move the damaged container.

If you can, roll a small container, for example an oil drum, so that the damaged part is to the top and the material is no longer spilling from it. Secure the container so it can't roll or turn back over. This will give you time to take action to stop already spilt material spreading further and to make other plans to secure the damaged container.



If possible, place a leaking primary container into a clean undamaged container to prevent any more leakage *right*. You will need to plan for this option to make sure the second container has no contamination, so any spilt material you put into it doesn't react with its former contents, and is made from a material that won't be damaged by the leaking material and cause a bigger problem.

Salvage/oversize drum. These are large plastic drums designed to safely store leaking or damaged drums, or other containers. They're made from chemically resistant plastic, but you should check with your supplier to make sure they're suitable for the materials you have on site. Liners may be available to make re-use easier.

Oversize drums can also be used for temporary storage for a small quantity of a spilt liquid.

To be continued

Publications

IRELAND: NEW ADR GUIDE PUBLISHED

The Health & Safety Authority has published a new guide, which is geared towards businesses that are involved in the consignment, loading/unloading and carriage of dangerous goods by road. The guide has been arranged to provide a comprehensive summary of the legal provisions of the ADR (european agreement concerning the international carriage of dangerous goods by road). In instances where access to the detailed provisions of the ADR is required, it is available and free to download at http://www.unece.org/trans/danger/publi/adr/adr_e.html

All businesses that carry significant quantities of dangerous goods by road have a legal obligation to appoint a dangerous goods safety adviser (DGSA), i.e. a competent person able to advise on the safe transport of dangerous goods nationally and internationally. More info [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

Publications (continued)

IMO PUBLICATIONS NOVEMBER-DECEMBER NEWSLETTER

News about new IMO publications. Download

US EPA PUBLICATIONS

Technology News and Trends Download TechDirect, January 1, 2013 Issue Download

Events

SOIL & GROUNDWATER EVENTS UPDATE

Upcoming events in USA, UK and Spain compiled by Environmental Expert. More info

Company News

ELASTEC AMERICAN MARINE RELEASES BOOM VANE VIDEO

In 2012, Elastec/American Marine, acquired the Swedish technology, BoomVaneTM, to deploy oil spill containment boom in rivers and open water. This unique device, fueled only by the water's current, can tow a boom from the shore without boats or anchors. This makes oil spill recovery faster and less expensive.

It is difficult to explain the concept in words, so we developed a video to simulate how it works when booming a river to corral or to deflect an oil slick (without the oil, of course!). The video can be viewed on the website at:

http://elastec.com/oilspill/containmentboom/boomvane/videos/index.php

or on the YouTube channel at: http://www.youtube.com/user/elastecmovies

AUSTRALIA: DASIC SLICKGONE NS WINS AUSTRALIAN APPROVAL

Dasic International Ltd of the UK has announced that their Slickgone NS type 2/3 oil dispersant has successfully passed all the rigorous testing required to meet the Australian Maritime Safety Authority new guidelines and is the first oil dispersant to be listed as an approved control agent.

The testing was sponsored by Dasic's Australian and South West Pacific representative, Spill Tech Pty Ltd of Noosaville. ISCO Corporate Member, Spill Tech is continuing the testing for the Slickgone EW – an oil dispersant more suitable for aiding the dispersing of heavier spilled oils – and is hoping to have that also listed early in the New Year.

USA: WITT ASSOCIATES AND O'BRIEN'S RESPONSE MANAGEMENT TO COMBINE

Witt Associates and O'Brien's Response Management recently announced their intent to combine the two companies to form Witt O'Brien's by the end of December, 2012. This transaction brings together two of the nation's leading preparedness, crisis management and disaster response and recovery organizations. Read more