

### UN OFFICIAL CHALLENGES CHEMICAL INDUSTRY

The United Nations' top environmental official on May 14 challenged the chemical industry to clean up stockpiles of its old, toxic products.



Achim Steiner, executive director of the [UN Environment Program \(UNEP\)](#), also asked companies to recommend chemicals for global phaseout, and to contribute money to UN projects designed to make the [management of chemicals safer](#) in developing countries. Steiner made his provocative remarks to top

Conference on Chemicals Management. The May 11-15 UN meeting was held in Geneva.

Speaking at an event sponsored by the [International Council of Chemical Associations \(ICCA\)](#), Steiner said manufacturers need to take charge of their past by ridding the world of large inventories of obsolete chemicals, especially pesticides. Hundreds of tons of no longer produced compounds, many of which pose known health risks, are stockpiled in developing countries, especially in Africa. These nations have little or no infrastructure for disposing of them.

Read the whole of this article by Cheryl Hogue: <http://pubs.acs.org/cen/news/87/i20/8720notw10.html>

### OIL SPILL RESPONSE AND AMOSC FORM NEW ALLIANCE

The Australian Marine Oil Spill Centre (AMOSC) and Oil Spill Response Limited (*Oil Spill Response*) have established a 'Resources and Services Alliance', a milestone agreement which gives AMOSC direct call out authority status to mobilise *Oil Spill Response* resources for oil spill incidents occurring in areas covered under AMOSC's area of operation. This arrangement allows governments and companies in defined regional areas to simultaneously gain access to additional resources, expedite the callout process and shorten overall response lead times.

Commenting on the sharing of resources, Ivan Skibinski, General Manager of AMOSC, said, "As the prime response organisation in Australia for the National Government, this Alliance allows us to quickly provide additional resources, particularly the Hercules aircraft and its wide area dispersant system that will complement those we have at hand. It also gives us both a better response cover for the whole region from Singapore through to New Zealand."

All Alliance activities will be overseen and managed by a Joint Operating Committee to be chaired by Ivan Skibinski and Declan O'Driscoll, Regional Director for *Oil Spill Response* Singapore. Targeted activities include the joint development of consultancy and training services, supported by mutual personnel secondments and information sharing.

Building on working ties established more than five years ago, this agreement marks the greater commitment to step up cooperation between two organisations which have a strong history of working together - including most recently the Queensland spill in March this year. AMOSC and *Oil Spill Response* are also members of the Global Response Network, a worldwide collaboration of industry-funded spill response organisations.

Archie Smith, Chief Executive of *Oil Spill Response*, commented on the working relationship, "Our two organisations have had a close relationship for many years and share common values and objectives. The Alliance adds significantly to this relationship and strengthens our ability to provide preparedness and response services to our existing members and others who require our services."

## **SAUDI ARABIA TO MOUNT A THREE-YEAR OIL CLEAN-UP OPERATION**

Nearly two decades after the end of the Iraqi invasion of Kuwait, Saudi Arabia is planning to launch a three-year operation to clean up its shores from the world's largest oil slick that hit most of the region's coastlines and caused considerable ecological damage.

King Abdullah bin Abdul Aziz has ordered the massive operation that involves cleaning 800km of beaches and burying of large marine areas near the vital port of Ras Tanura north of Dammam in the Eastern region, the hub of the kingdom's mammoth hydrocarbon industry. Thousands of mangroves and other types of trees will also be planted in the damaged coastal areas while vessels will roam the polluted water to remove remaining oil sludge and dead plants. Read the complete report at - [http://www.business24-7.ae/articles/2009/5/pages/17052009/05182009\\_44e80894694445798a759e8c48418b2c.aspx](http://www.business24-7.ae/articles/2009/5/pages/17052009/05182009_44e80894694445798a759e8c48418b2c.aspx)

## **NATURAL PETROLEUM SEEPS RELEASE EQUIVALENT OF 8 – 80 EXXON VALDEZ OIL SPILLS**

A new study by researchers at Woods Hole Oceanographic Institution (WHOI) and the University of California, Santa Barbara (UCSB) is the first to quantify the amount of oil residue in seafloor sediments that result from natural petroleum seeps off Santa Barbara, California.

The new study shows the oil content of sediments is highest closest to the seeps and tails off with distance, creating an oil fallout shadow. It estimates the amount of oil in the sediments down current from the seeps to be the equivalent of approximately 8-80 Exxon Valdez oil spills.

The paper is being published in the May 15 issue of Environmental Science & Technology.

"Farwell developed and mapped out our plan for collecting sediment samples from the ocean floor," said WHOI marine chemist Chris Reddy, referring to lead author Chris Farwell, at the time an undergraduate working with UCSB's Dave Valentine. "After conducting the analysis of the samples, we were able to make some spectacular findings."

Read the complete text of this interesting article by *Nachste Meldung* at - [http://www.innovations-report.de:80/html/berichte/studien/natural\\_petroleum\\_seeps\\_release\\_equivalent\\_8\\_80\\_132686.html](http://www.innovations-report.de:80/html/berichte/studien/natural_petroleum_seeps_release_equivalent_8_80_132686.html)

## **PERSISTENT ORGANIC POLLUTANTS: TREATY NOW INCLUDES PFOS AND BROMINATED FLAME RETARDANTS**

Nine chemicals, including the widely used chemicals perfluorooctane sulfonate (PFOS) and brominated flame retardants, have been added to the [Stockholm Convention on Persistent Organic Pollutants](#), an international treaty to which the U.S. is not party.

The chemicals are targeted for worldwide elimination or restriction of production and use because they are carcinogens, interfere with reproduction or development, or damage the immune or nervous system, according to a United Nations statement.

PFOS, a substance that imparts stain- and stick-resistance, is listed for restriction. However, treaty partners added a number of exemptions, including the use of PFOS and its related chemicals in textile finishes, fire-fighting foam, and the manufacture of semiconductors.

Other treaty listings essentially call for the phaseout of chemicals. Among those to be eliminated are commercial-grade pentabromodiphenyl ether and octabromodiphenyl ether, which are mixtures of closely related brominated compounds. Uses of these compounds include fire suppression for polyurethane foams and the plastic housing of electronics such as cell phones and computers.

Also newly listed under the Stockholm Convention for elimination are the pesticide lindane, which is also used in some pharmaceuticals, as well as  $\alpha$ - and  $\beta$ -hexachlorocyclohexane, both unintentional by-products of the manufacture of lindane.

Another new treaty listing for elimination is pentachlorobenzene, once used in polychlorinated biphenyl ether products and dyestuffs carriers and as a fungicide and a flame retardant.

The two other newly listed substances to be banned are chlordecone, a pesticide, and hexabromobiphenyl, once used as a flame retardant.

<http://pubs.acs.org/cen/news/87/i20/8720notw9.html>

## **USA : POST-TAMPA BAY OIL SPILL RESTORATION PROJECTS**

About \$3 million has been spent on environmental restoration projects following the spill earlier this year. A listing and more information about these projects can be found at <http://www2.tbo.com/content/2009/may/10/restoration-projects-after-oil-spill/>

## **EMERGENCY RESPONDERS BEWARE: HYDROGEN SULFIDE IS DEADLY--WHEN ITS SMELL DISAPPEARS, THE DANGER IS BIGGEST!**

On the 16th of March 2009, at a farm in Warns (a small village in north Netherlands), a twenty-three year old man entered a manure spreader tank to remove an obstruction. He immediately collapsed as a result of hydrogen sulfide poisoning. His father immediately dialed 112 (the emergency telephone number in the Netherlands) and then made a desperate attempt to save his son. As soon as he entered the tank, he too fell unconscious. A neighbor lifted the farmer up with a hook, bringing him closer to fresh air, but he was unable to get him through the narrow entrance of the tank without risking his own life. Firefighters arrived at the scene and got the father and the son out. The son died in the ambulance on the way to hospital. Doctors kept the father asleep for two days to give his stricken brain time to recover. He was able to attend the funeral of his son. He managed to do that on foot, which was a miracle on itself, as some victims with severe hydrogen sulfide poisoning spend the rest of their lives in a wheelchair or even live in a vegetative state.

Hydrogen sulfide is a dangerous gas. In very low concentrations, starting at about 0.005 ppm, most humans can detect its characteristic odor, described as resembling "a rotten egg." At a concentration of 100 ppm, the olfactory nerve is paralyzed after a few inhalations, and the sense of smell disappears, together with awareness of danger. At several hundreds of ppm, the gas is deadly within minutes. At a concentration above 1,000 ppm, one breath of the gas is enough to make a healthy person fall down unconscious.

Read the complete article. Go to <http://www.hazmat101.com:80/> and click on Hazmat 101 News

## **UK: HAZMAT 2009 CONFERENCE AT LONDON STANSTED AIRPORT, OCT 13-14**

The organisers of this year's HazMat 2009 conference have just finalised the date and venue, which will be 13-14 October at the Hilton, London Stansted Airport. This will be the 5th event to be run in the United Kingdom and promises to continue to be the premier event on the calendar for all hazardous materials and CBRNE professionals. Further

details can be found on the [website](#) or by clicking on the links on the righthand side. Currently there is a call for presentations, so if you wish to contribute to this unique platform to share and network with fellow responders, please submit a presentation as soon as possible.

To learn more about the conference, click on [http://www.hazmatconference.com/-chronocontact/hazmat2009\\_interest.html](http://www.hazmatconference.com/-chronocontact/hazmat2009_interest.html) To respond to the call for papers, click on - <http://www.hazmatconference.com/hazmat-2009-call-for-papers.html>

## **RO-CLEAN DESMI ANNOUNCES GENERATION CHANGE AND NEW EMPLOYMENT AT ITS SOUTHAMPTON BASED UK OFFICE**

The following news has been received from ISCO corporate member, Ro-Clean Desmi.

Michael C. Foulds has decided to retire as from June 1<sup>st</sup> 2009. After 25 years working for the company, Mike is an important part of the company's history.

The announcement of Mike's retirement was published during Interspill 2009 in Marseille, where Ro-Clean Desmi's long history and dynamic spirit was evidenced by Mike on one side and the innovative DESMI Giant Octopus skimmer on the other side.

For the past 30 years, Mike has worked within the Oil Spill Response Business and for 25 years he has worked for OMI/Ro-Clean International/Ro-Clean Desmi as Sales Manager and subsequently General Manager for our UK office. Besides his work for Ro-Clean Desmi Mike has, as a consequence of his skills, been elected as a member of several institutes and associations. We all wish Mike and his family the best of luck in their "new life".



We are also pleased to announce the Leslie P. Andrews has been appointed as new General Manager for our UK office. To strengthen the UK office, Marc Van der Zwan has recently joined our company, and we are confident that Ro-Clean Desmi, 100% owned by the 175 years old DESMI Group, will continue being the reliable partner for the Oil Spill Response Business.

## **SMITHS DETECTION LAUNCHES HAND-HELD BIO-CHEMICAL AGENT IDENTIFIERS**



Smiths Detection announced the launch of three new instruments for first responders. These are the (1) HazMatID Ranger, a hand held chemical identifier for military and first responders to protect and defend against CBRNE threats. (2) Bio-Seeq™ PLUS, a next-generation handheld biological testing unit designed for global military and emergency response applications and (3) the newest model in its Lightweight Chemical Detector series, the LCD 3.3, an individual hazardous vapor warning device. These new instruments are featured in the latest edition of

HazMat News, the Newsletter published by ISCO Member of Council for the UK, Kevin Miller. You can obtain HazMat News, which also features reports on recent hazardous materials incidents, by clicking on the link <http://www.hazmatlink.com/subscribe.html> ISCO has also posted information on these new Bio-Chemical Agent Identifiers in its New Technology page [http://www.spillcontrol.org/Joomla/index.php?option=com\\_docman&task=cat\\_view&gid=19&Itemid=96](http://www.spillcontrol.org/Joomla/index.php?option=com_docman&task=cat_view&gid=19&Itemid=96)

## CORRESPONDENCE

J. "Sjon" Huisman Adviser, Response Organization Rijkswaterstaat North Sea, has written to the editor "The closing speech by Robin Perry last Thursday in the Interspill conference requires a reply. Would it be possible for you to include the attached in the next letter?"

For readers who would like to see what Robin Perry said at the Interspill Conference you can find the text of his presentation by clicking on –

<http://www.spillcontrol.org/Tech%20&%20Ref/Interspill%20Conference%20Paper%20RP%2009.pdf>

The letter from J. "Sjon" Huisman is reproduced below, and is followed by Robin Perry's reply.

Dear Reader,

The 2009 Interspill exhibition and conference, back to back with the IMO R&D Forum just closed. The three days, 12 – 14 May, provided a series of presentations for participants.

A large number of attendees visited the exhibition and discussed various topics on oils and HNS problems; regulations and compensation; equipment and training.

The sub-title of this Interspill and IMO Forum was: working together.

At the end of the conference, Mr. Robin Perry – a recognized experienced consultant – reviewed the 42 years since the Torrey Canyon (1967 Isles of Scilly): "From Torrey Canyon to today: How spill response has progressed in the last 42 years".

In an interesting historical overview, also referring to other tanker accidents, he raised the question whether response organisations have improved and if the response world is better prepared now.

He may have chosen to be rather provocative in his presentation and if so, he succeeded in that, but at the same time this made some attendees conclude that Robin missed the past 25 years in the response world. Neglecting the many successful response operations.

Later on, when we discussed his presentation, I learned that Robin main focus was that despite all efforts and successes coastal states are still facing tremendous oil pollution in the case of a large volume tanker incident. He argued that many coastal states do not have the required plans and equipment in place. The overall message was, prevention might be more effective than all these improvements in the response world.

Robin was absolutely correct in his view that in the large tanker incidents the volume of oil will spread out into the sea and contaminate large coastal areas and that the effects could be devastating.

He stated that if counter pollution measures by mechanical recovery at sea where at all lucky, about 1 to 6 percent could be collected.

Adverse weather conditions (wind/waves) would jeopardize any response measures. Natural processes would deal with the oil (e.g. in the Brear).

I couldn't help thinking Robin had become quite cynical and negative about the responders, but then he knows the figures and facts.

Isn't it worth mentioning the notable improvements in many aspects with regard shipping and responding to oil incidents.

Shipping industry in general has become safer (safer ships, cleaner seas). A laden tanker will no longer cut the corner near the Isles of Scilly. Response organisations will no longer use missiles or napalm to set a crippled tanker on fire.

Governments have learned to co-operate both in preparedness and in response, that's why Robin referred to the work of regional agreements.

Oil pollution response equipment has been designed, tested and improved and Robin recognize that.

Many regulations and directives, compensation schemes are in effect eg OPRC and OPA90.

In the operations many responders gain experience in recovering oil slicks (smaller and larger quantities) on a daily basis. Education and training of responders get attention, yet too fragmented, not all countries have Contingency Plan ready. This is all done to reach a higher level of preparedness in order to bring forth a combined effort in the next case of a large tanker incident. As incident can happen anywhere in the world, all coastal states should strive to the highest level possible in preparedness.

Obviously, if an accident occurs that exceeds the accepted level of the calculated risk – the incident for which an organisation is prepared – then the negative effects can be dramatic and the environmental impact of oil incidents can't be denied.

However, we have shown (Prestige incident) that the co-operation between EU member states provides an effective counter pollution organisation and that mechanical recovery works. Again, despite all efforts about 1900 km of coastline was impacted by oil that wasn't collected. I can't accept that in the case of successful mechanical response, we were just lucky. No, we were well prepared.

The drive, the enthusiasm and motivation to win the war against the "black tide" despite the many struggles and tremendous difficulties, made us – the response teams - succeed. I agree with Robin that we won part of the battle.

Sjon Huisman, Adviser Response Organisation, The Netherlands.

The reply from Robin Perry –

Dear Readers,

Firstly I would like to thank Sjon for contributing to the discussion following my presentation at Interspill 2009. All too often presentations are forgotten as quickly as they are made and healthy debate can only help to improve our preparedness in the future. I was not intending to be either cynical or pessimistic but I believe I was realistic in my observations about the general state of spill response today. My only intention in the presentation, as it has been throughout my 29 years in the business, is to strive for improvements, but not to be afraid to point out areas where we must do better. So I showed that many improvements have occurred over the 42 years since the *Torrey Canyon*, at which I played such a very minor role.

There have been big improvements in dispersant capability, but I discussed how the legacy of the use of the highly toxic chemicals at the *Torrey Canyon* had coloured the views of those who were either ignorant of the improvements or unwilling to accept this. The development of the compensation arrangements has been a success. Many good local and national contingency plans are now in place. International and regional agreements have helped, (I quoted them and the 40<sup>th</sup> anniversary of the Bonn agreement). But I cautioned that improvement is not universal and that many rich countries, at high risk of spills do not even have a National Contingency Plan.

The presentation clearly said that International Conventions such as MARPOL, OPRC and National legislation such as OPA 90 have contributed to improvements in the reduction of spills. It also showed how massive R&D efforts had gone into the development of mechanical equipment and how this is now more capable, easier to operate and more robust. OPA 90 & the OPRC Convention require stocks of equipment to be in place commensurate with the risk and stocks of equipment have improved in many areas, with the establishment of the Tier 3 response bases, Tier 1 and 2 stocks and many private response organisations. But I still say that just owning this equipment can give rise to the false sense of security that it will be able to clean up any spill that occurs. This is plainly not the case in major spills and the facts support my contention that oil will almost always come ashore.

The presentation did mention that mechanical equipment is likely to be more effective in Tier 1 spills, where generally the equipment can be deployed more quickly and closer to the source. It has also been very effective in the protection of inshore areas. But from personal experience and that of experienced colleagues, lack of maintenance and poor training of operators is still all too common, adding to this false sense of security.

I clearly said that mechanical equipment will always be required as the only technique available for spills of heavy fuels such as the Prestige. Whilst Sjon and commentators after the presentation noted the "success" of the Prestige operation, that assertion requires closer examination. Some 63000 tons of oil were spilled and the EU fleet recovered 17500 tonnes of emulsion, estimated by the Spanish Government to contain between 7850 and 9595 tonnes of pure oil or at best 15% of the total spilled. The huge fleet of 1000 fishing vessels recovered 35000 tonnes of emulsion, estimated to contain between 12433 and 15885 tonnes of pure oil, or 25% of the volume spilled. So at best 40% of the total spilled was recovered, which is significantly above the long term average. Despite this, 1900 kms of coastline were polluted and 16000 tonnes of waste were produced. How can that be counted as a success? Certainly the Spanish people would not agree.

So we need to look at definitions of success. Going back to my IOSC White Paper in Seattle I discussed this.

*"This will depend on what is meant by improvement, which yardstick is used, and the many variables involved in a response. Does a better (successful) response mean:*

- *A more technically effective response that is well managed by a closely integrated spill management team, in which damage to the environment is minimised?*

- *Greater than average amounts of oil are recovered at sea, or large amounts of oil are dispersed chemically, resulting in less oil reaching the shoreline?*
- *Sensitive resources are well protected, reducing environmental and socio-economic impacts?*
- *A fast, efficient shoreline cleanup occurred with minimal additional shoreline damage from the cleanup itself?*
- *Overall cleanup costs are kept to a reasonable minimum?*

*“Or is success only a matter of perception? In that case, does a better response mean: There is a more favourable reaction from regulatory and post-spill review authorities? Media and public perception of the response is favourable or critical? If it is the latter, does any costly political or legislative reaction follow the response, such as OPA 90?”*

*“Neither of these measures of success is wholly right or wrong: to most responders, success is both technical and perceived. But how can the parameters be measured? Only some are quantifiable, for example, amount of oil spilled, amount recovered at sea, or amount cleaned up on the shoreline. Others are less precise, such as the success or otherwise of a spill management team, vessel salvage, protection measures, amount of oil evaporated or chemically or naturally dispersed, damage done by oil or subsequent cleanup, and environmental or socio-economic impacts. Others are subjective and may depend on public and political perception.”*

Using these criteria, parts of the *Prestige* recovery operation were technically successful, but did not prevent oil coming ashore and certainly did not impress the Spanish population. Some other issues are still *sub judice* and so cannot be discussed here.

One of my main arguments was that prevention must be the highest priority in reducing the number of spills. Owners, charterers, classification societies, sea schools, flag state and port state control authorities all have a responsibility to ensure that only high quality vessels, with sufficient crew complements, well trained & experienced sail the high seas. I cannot help think that response still carries a higher priority than this.

So I felt that I had given qualified credit for the improvements but that Sjon’s comments on improvements were more pertinent to European preparedness, where great strides had been made. On the other hand, I was considering the world-wide situation, where these improvements are not universal.

Following the presentation I was congratulated by the majority of the audience on what I believe was a realistic, not cynical, reflection on the past 42 years. Among my conclusions were the following

- **IMO Conventions and legislation such as OPA 90, have helped to reduced the number of spills & ensured fair compensation for those affected**
- **Response techniques & equipment have improved.**
- **Dispersant has been effective at many spills but prejudices remain**
- **Containment and recovery at local facilities is often successful, as is the protection of sensitive areas.**
- **(Spills are) not managed to ensure an evenly high standard of preparedness, either in (some) rich or developing countries.**
  - **Plans are either not in place or inadequate.**
  - **Equipment lies un-maintained**
  - **Personnel remain untrained.**
  - **It has not been possible to stop spilled oil from coming ashore.**
- **Despite all the improvements, the population is still not convinced that enough is being done.**
- **Big improvement in oil removal at sea unlikely**
- **Much greater effort needed to prevent spills - Escort tugs, salvage tugs and response vessels in sensitive high risk areas can help.**
- **Only with a demonstrably great reduction in the prevention of large and small spills and a continuing education programme about the realities of spill response will public perception improve.**
- **Final end of term school report “The pupil has tried hard and despite having made a good progress in many subjects he has still not learned how to prevent oil coming ashore. His performance has improved greatly since 18<sup>th</sup> March 1967, but there is no room for complacency and there is still much to be done”**

I still believe that this is a fair assessment of the current situation and covers the majority of Sjon’s observations.

Robin Perry  
Consultant  
Robin Perry and Associates

Legal disclaimer: Whilst ISCO takes every care to ensure that information published in this Newsletter is accurate, unintentional mistakes can occur. If an error is brought to our attention, a correction will be printed in the next issue of this Newsletter.