



Oil Spill India Newsletter

The Newsletter of the Global Spill community

Issue VI, 16th June 2017 || secretariat@oilspillindia.org || www.oilspillindia.org

THE OSI NEWSLETTER

The OSI Newsletter is published quarterly by Oil Spill India, an industry led forum supported by its advisory board. One of the central goals of OSI is bringing together the global spill response industry & its stakeholders in the region for enhanced cooperation in planning, prevention and response of any spill or disaster in marine ecosystem, concurrently building an informative schedule of the raising Global Standards. It is intended to function as a thought - starter, change - agent and signpost through the intellectual capital that accrues through the rich assortment of diverse, pertinent and eminently interesting subjects of concern to the spill, salvage, wreck removal & marine disaster industries besides showcasing the technological depth and knowledge repertoire of the industry.

POWERED BY



The Energy and Climate Initiatives Society (ENCIS) is a registered non-profit organisation that supports, encourages & catalyzes the development, discussion and dissemination of consequential research and projects in energy and climate protection industries. An independent, nonpartisan organisation that facilitates stakeholder's analysis and decisions on policy frameworks and initiatives within the global frameworks of sustainable development.

ENCIS produces exclusive and pertinent multi-platform contents fostering inclusive economic prosperity through safer, cleaner, more equitable and climate-friendly energy initiatives.

With leading experts on environment, natural resources and energy, the Advisory Board of ENCIS provides the key impetus to the organisation's initiatives & strategic insights on the evolving global industry, steering an immensely profound impact on the economic, environmental and strategic landscapes of the future.

Chennai oil spill relief for fishermen soon: Shipping Minister Nitin Gadkari



CHENNAI: Union Minister Nitin Gadkari on Friday said he expected insurance companies to clear compensation claims for fishermen affected by the oil spill within 10 days. He was reacting to State fisheries minister D Jayakumar's request to expedite it.

The compensation for fishermen affected by the oil spill following a collision between two vessels in the Ennore Port channel is pegged at Rs 203 crore.

On the controversial Sethusamudram project, Gadkari said the Ramar Sethu would not be dredged. "We are looking at four to five options. Since the issue is before the Supreme Court, it is sub judice," he said.

Under the Sethusamudram project, there was proposal to create a navigation channel that would shorten the journey of vessels by not circumventing Sri Lanka. He also said Sri Lanka is keen on India's help in developing Colombo Port, adding that talks are on. Gadkari also expressed the Centre's keenness on developing fishing beyond 11 nautical miles.

The minister earlier inaugurated the much-awaited Kamarajar Port-Adani Group's Rs 1,270 crore container terminal, Rs 151 crore multi-cargo terminal by Chettinad International Bulk Terminal, railway connectivity to container and multi-cargo terminal, e-office and RFID gate entry system.

Oil spill response simulation Wednesday between Pender and Saturna islands

Over the next few weeks, construction contracts, vessel procurement and hiring plans for six new oil spill response stations on the B.C. coast will enter the execution phase.

Western Canada Marine Response Corporation (WCMRC) has been planning on adding the new bases since late last year, following the federal government's approval of the Kinder Morgan Trans Mountain pipeline expansion project. Michael Lowry, manager of communications for WCMRC, says the need for the response stations was a requirement set out by the National Energy Board — part of the conditions of approval for the pipeline project.

WCMRC covers all 27,000 kilometers of the B.C. coastline, from Alaska to Washington State, Lowry said, and they have a base in Prince Rupert. They respond to a variety of calls, typically initiated by a vessel or the Coast Guard for what is known as a 'mystery spill' — or from an unknown source. They have someone on duty 24/7 to respond to those calls.

National News**Shipping ministry constitutes panel to set up 200MW solar, wind projects at Kandla port**

Ministry of shipping has constituted a panel to explore setting up 200 MW solar and wind energy project on the land located at Kandla port, said Nitin Gadkari, Union Ministry of Shipping, road, highways and transport, Tuesday.

“Kandla port has 1.5 lakh acres of land which is low cost and economically viable for all ports to invest in solar and wind projects and then wheel energy through national grid. The cost of solar energy per unit has dropped to Rs 2.63 per unit and capital cost of wind energy too has dropped down, which will help all ports cumulatively save Rs 600-700 crore annually,” Gadkari said speaking at the conclave on Green Ports & Oil Spill Management – 2017 held here. The conclave titled – Green Ports & Oil Spill Management 2017 was organised by the Indian Federation of Green Energy (IFGE) in association with Ministry of Shipping, Sagarmala, Mumbai Port Trust (MbPT), Indian Ports Association (IPA) and Shipping Corporation of India (SCI).

Apart from the port sector, Sagarmala will have 14 industrial clusters with a cumulative investment of Rs 12 lakh crore as part of port-led development that will also be cost effective and economically viable by consuming green power, Gadkari added.

Explaining the economic significance of the green energy, Annasaheb Patil, vice-chairman of Indian Federation for Green Energy, said, “India currently imports 80-85% crude oil amounting to Rs 5 lakh crore and it was over Rs 7 lakh crore at peak prices impacting the trade deficit of the country. Hence, the green initiative is not only significant from a national security perspective but also from employment generation within the country.

Parts of sinking barge float to seashore, locals fear oil spill

Ministry of shipping has constituted a panel to explore setting up 200 MW solar and wind energy project on the land located at Kandla port, said Nitin Gadkari, Union Ministry of Shipping, road, highways and transport, Tuesday.

“Kandla port has 1.5 lakh acres of land which is low cost and economically viable for all ports to invest in solar and wind projects and then wheel energy through national grid. The cost of solar energy per unit has dropped to Rs 2.63 per unit and capital cost of wind energy too has dropped down, which will help all ports cumulatively save Rs 600-700 crore annually,” Gadkari said speaking at the conclave on Green Ports & Oil Spill Management – 2017 held here. The conclave titled – Green Ports & Oil Spill Management 2017 was organised by the Indian Federation of Green Energy (IFGE) in association with Ministry of Shipping, Sagarmala, Mumbai Port Trust (MbPT), Indian Ports Association (IPA) and Shipping Corporation of India (SCI).

Apart from the port sector, Sagarmala will have 14 industrial clusters with a cumulative investment of Rs 12 lakh crore as part of port-led development that will also be cost effective and economically viable by consuming green power, Gadkari added.

Explaining the economic significance of the green energy, Annasaheb Patil, vice-chairman of Indian Federation for Green Energy, said, “India currently imports 80-85% crude oil amounting to Rs 5 lakh crore and it was over Rs 7 lakh crore at peak prices impacting the trade deficit of the country. Hence, the green initiative is not only significant from a national security perspective but also from employment generation within the country.

Report says fish caught off Chennai coast contaminated

While the Tamil Nadu government and the fisherfolk of seafront villages maintain that the fish have not been contaminated by the Ennore oil spill of January, a report by the ministry of earth sciences suggests otherwise.

A study of 21 edible fish caught off the Chennai coast found that all of them were contaminated with total petroleum hydrocarbons (TPH), which are toxic, mutagenic and carcinogenic. Their study lists 40 edible fish found in the area while findings on the other 19 remain unpublished. Neithli, a local favourite and the smallest fish in the sample, was found to be the most contaminated.

According to the Agency for Toxic substances and Diseases Registry (ATSDR), an agency that functions under the US Department of Health, long-time exposure to THD can cause permanent damage to the central nervous system.

However, scientists from the Integrated Coastal and Marine Area Management (ICMAM), who conducted the study for the ministry of earth sciences, were not able to ascertain whether the contamination was solely because of the oil spill.

Arun Krishnamurthy, founder of the Environmental Foundation of India (RFI), said the oil spill was just another “nail in the coffin” for local fishermen. The Ennore coast is being polluted on a daily basis with dry ash from thermal power plants and urban sewage being carried out to sea by the Kosasthalaiyar river.

International News**Norway to Undertake Oil Spill Response Exercise**

In an effort to improve the country's spill response capacity, the Norway Coastal Administration (NCA) will carry out an oil-spill response exercise in September 2017, known as the Scope project—said to be Europe's largest-ever oil spill pollution exercise, Trade winds reports.

“If an accident occurs, for example on the coast of Telemark, our neighbouring country can quickly be affected so, for this reason, the EU provides support,” said Scope project manager Stig Wahlstrom.

“The Scope project shall also strengthen collaboration between the regional readiness services, and make the best possible use of resources, services and guidelines offered through the European Union.”

Wahlstrom notes that the project will work closely with the Swedish Coast guard, the Royal Danish Navy, and Iceland's Environmental Directorate.

Oil spill company OSRL to run test flight over the Solent

THE world's largest oil spill response organisation will be showcasing some of its specialist aircraft in an exercise over the Solent next week.

Oil Spill Response Limited (OSRL) will be putting one of its two Boeing 727 aerial dispersant aircraft through its paces on Wednesday.

Flying off the coast of Lee-on-the-Solent, the specially-adapted 727 will be spraying fresh water to simulate the application of dispersant chemicals onto an oil slick.

The Boeing 727 will be joined in the skies by another OSRL plane, a Cessna Navajo PA-31 surveillance aircraft.

The Navajo is used to assess the extent of any oil spill and provide guidance to the larger aircraft.

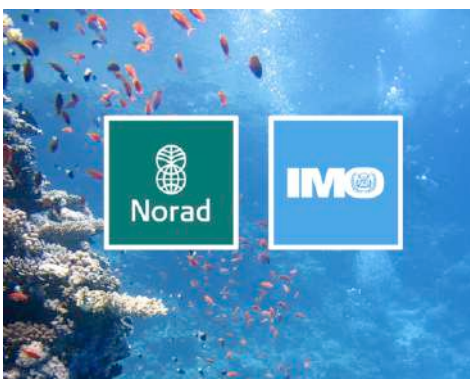
The planes are permanently based in the UK and are on standby at all times.

Each B727 is fitted with seven 2,200 litre tanks and a powerful pumping system, capable of delivering up to 1,200 litres of dispersant per minute.

OSRL's chief executive, Robert Limb, said: “During similar exercises in the past we received requests for additional information. With that in mind, we wanted to inform everyone about the event and provide the opportunity to see some of the assets we have in our arsenal for combating an oil spill.

As this is an exercise, only clean water will be released so no dispersant fluids or oil are involved, whatsoever.”

Oil Spill Response Limited (OSRL) is the largest international industry-funded co-operative. It exists to respond to oil spills wherever in the world they may occur.

IMO and NORAD collaborate for protecting the marine environment

IMO's highly successful collaboration with the Norwegian Agency for Development Cooperation (Norad) to deliver technical cooperation activities was in the spotlight in Oslo on 30-31 May.

In addition to the annual IMO-Norad projects

review meeting, IMO presented the Organization and its technical cooperation programme to senior officials from Norwegian ministries and NGOs (Norwegian Ministry of Foreign Affairs, Ministry of Trade, Industry and Fisheries, Ministry of Climate and Environment, and WWF Norway), highlighting in particular the IMO-Norad East Asia Project, which helped build capacity to implement IMO environment-protection conventions in six participating countries – with a view to identifying further cooperation opportunities.

IMO and Norad have a continuing and fruitful arrangement under which Norad has funded a number of important marine environment projects within the IMO Integrated Technical Cooperation Programme.

Oil spill in sea off Sri Lanka's Colombo harbor



Sri Lanka's Marine Environmental Protection Authority (MEPA) has reported an oil spill in the seas off Colombo Harbor, the Disaster Management Center said.

The oil spill was reported in the seas 9 kilometers from the Colombo Harbor.

The DMC said MEPA has started the process of clean-up to reduce the extent of damage caused by the spill.

"MEPA is diligently working on reducing the damage caused by the oil spill," the DMC said in a Twitter post urging the public to call on 117 to report any information about the oil spill to create public awareness.

Environmental emergency' with oil spill on beach on Auckland's North Shore



Auckland Council officers have attended a spill of pollution, which saw black liquid "literally pouring out of a drain" onto a beach and into the ocean.

Kushla Rolls was walking her dog on Browns Bay, when she saw the black liquid gushing from a pipe on the beachfront. She called the council a little after 10am on Wednesday, May 31, then dropped her dog at home before returning to the site.

"I was very clear this is a huge environmental problem you need to get people down here now." Rolls said, even once council officers had arrived, they weren't well equipped and didn't have shovels.

She said Browns Bay locals, including East Coast Bays National Party candidate, Erica Stanford, had taken a hands-on approach to the clean-up using signs from the officer's car.

465 gallons of oil spilled in Black Bay, Coast Guard says



An oil spill has been spotted at an unstaffed oil platform near Black Bay, off the east bank of Plaquemines Parish, the Coast Guard said Saturday (June 9). The agency said aerial assessments estimate about 465 gallons of crude reached the water, but no shore-line contact was reported.

Coast Guard Sector New Orleans received a report that LLOX LLC's platform discharged the crude Friday (June 9) into the water from a pressure relief valve at the oil and gas exploration services company's structure. The Coast Guard said the leak had been secured.

Authorities say OMI Environmental Solutions and Clean Gulf Associates were working to contain and clean up the spill. Three vessels were on the scene with containment boom and conducting skimming operations.

11,000-litre oil spill after semi-truck rolls on Highway 63, cleanup to take days: RCMP

The RCMP said a hazmat response team and Alberta Environment have been called in to clean up 11,000 litres of oil that spilled into a ditch south of Boyle, Alta., when a semi-truck rolled over on Highway 63 Saturday night.

Police said officers were called to the single-vehicle crash on Highway 63 at Township Road 634 at about 9:30 p.m.

The 22-year-old Edmonton woman driving the truck was taken to hospital with serious but non-life-threatening injuries.

Mounties said the highway is partially closed and could be for several days until the cleanup is complete. One lane of traffic alternating both north and southbound on the highway will remain in effect until then.

STAY IN TOUCH TO OUR NEWSLETTER HERE

SUBSCRIBE NEWSLETTER HERE

**To receive the free
OSI NEWSLETTER
Visit: www.oilspillindia.org
or
E-Mail: info@encis.in**

Deliberate oil spills need to be stopped

The third oil spill in Fujairah this year – the fourth in three months to hit the shores of the UAE – highlights the pressing need to impose penalties and sanctions on vessels and tankers that deliberately dump their oil-laden ballast into the country's waters.



The environmental effect of these intentional acts is enormous. They affect natural habitats and endanger marine biodiversity and the ecosystem. The first oil spill, which occurred in March, coincided with the breeding season of certain types of fish. Fish eggs can be harmed by hydrocarbons and marine fauna and flora can suffer irreparable damage, which in turn would affect birds and endangered species that feed on them.

The economic repercussions of shoreline oiling are many. The most recent oil spill in Fujairah affected 300 boats and around 250 fishermen, as The National reported, not only damaging

their trade and livelihood, but also incurring significant costs to repair damaged equipment. In an area that also thrives on tourism, hoteliers have reported losses amounting to thousands of dirhams, as tourists cancelled their stays.

In other words, clean-up costs are high, even when dealing with the repercussions of the smallest spill or discharge

The volume of sea traffic in Fujairah is high, where heavy tanker traffic can make it difficult to

pinpoint the culprit. Nevertheless, according to experts, finding the source is "not impossible". A study of currents and an analysis of oil samples can determine the origin and narrow down possibilities.

In GCC territorial waters, tankers are required by federal law to maintain their ballast discharge and UAE law clearly states that waste water is not to be dumped within coastal limits. Though enforcing these laws may prove difficult, new technologies can be helpful. In 2014, the Masdar Institute's Coastal and Environmental Remote Sensing Research Group developed a satellite surveillance programme to issue early warnings when oil spills happen.

Authorities have pledged that steps would be taken against tanker captains who dump their ballast waste in the blue waters of the coast. It is time those who perpetrate these harmful and unlawful acts are brought to account.

Oil spill reported in Naugatuck River



A crew from the state Department of Energy and Environmental Protection will attempt to determine the source of an oil spill in the Naugatuck River.

On Monday night, the Seymour Fire Department

received a report of an oily smell from the river.

The oil is believed to be in a stretch of the river from Beacon Falls to downtown Seymour.

Fire Department Chief Michael Lombardi told WTNH that "we do have quite a bit of oil in the water, hopefully it'll wash away in the rain."

A DEEP crew is expected to inspect the river on Tuesday.

In recent decades the Naugatuck River has made a dramatic comeback years of pollution.

Factories in Waterbury, Naugatuck and Seymour dumped untreated industrial in the river for generations.

One of the more infamous factories was the U.S. Rubber Co. in Naugatuck that manufactured Keds sneakers up until the early 1980s.

The Naugatuck River begins in the towns of Winchester, Norfolk, and Goshen to converge in Torrington and flow 39 miles to its confluence with the Housatonic River in Derby. It has a watershed area of 311 miles in portions of 27 towns, is the only river contained entirely in Connecticut, and is the largest tributary of the Housatonic River.





"Sea Slug"
Ocean Towable Bladders



"Frame / Open Top Tanks"



"Well-Liftable Tank"



"Pillow Tank"



"Orion Open Top Tanks"

CANFLEX (USA) INC 412 30th Street • P.O. Box 1014 • Anacortes Washington 98221
Tel: 206-282-8233 or 800-544-8356 • Fax 206-282-5933 or 800-635-6992 canflex@direct.ca / www.canflexinc.com



INTERNATIONAL PROCESS SAFETY CONFERENCE

February 2018, New Delhi, India

THEME: COMMITMENT, TRANSFORMATION & EXCELLENCE



Organised By



The Energy & Climate
Initiatives Society
Registered Under The Societies Registration Act XXI of 1860

Event Partner



iTEN MEDIA™

Secretariat address:

The Energy & Climate Initiatives Society (ENCIS)
Plot No.-33, Janki House, 4th Floor, Sector-12 A, Dwarka, New Delhi-110075, INDIA
Tel.: +91 11 43013474 | Fax: +91 11 42171483 | M: +91 9711433960
E: info@encis.in | W: www.inpsc.com



For more information visit www.inpsc.com

Trump Weighing Combining Agencies Separated After Gulf Spill

After the 2010 Gulf oil spill, the Obama administration broke the scandal-plagued federal agency that policed offshore drilling into separate bureaus.

Now the Trump administration is considering putting it back together again.

The change, described by Interior Department officials and lobbyists familiar with the deliberations, would combine two agencies: one that enforces regulations on offshore drilling safety and another in charge of leasing offshore tracts. Keeping those roles separate was a key recommendation of a presidential commission that investigated the Deepwater Horizon blast that killed 11 men and sent oil gushing into the Gulf of Mexico for months.

Merging the bureaus could send a signal that Interior is easing off on enforcement, right as President Donald Trump expands areas available for offshore oil drilling, according to Bob Graham, a former Florida senator who led the commission.



"I have heard no indication of why we're doing this," Graham said in an interview. "It's just seven years after this enormous disaster -- and this was one of the key steps in at least mitigating the chances of a repetition."

Officials are still weighing the reorganization, according to the people, who asked not to be identified discussing internal deliberations. Interior Department spokesmen didn't respond to requests to comment on the possible change.

New analytical tool could aid in effective cleanup of oil spills



Researchers at Florida International University are developing an analytical tool that can help determine what happens to oil after it spills or leaks into the environment—technology that could lead to improved cleanup methods.

Francisco Fernandez-Lima, a Ph.D. chemist and director of the project at FIU's Center for Aquatic Chemistry and Environment, said the lab's analytical method can help determine the photo and biological transformations oil undergoes after it enters the environment.

"There is always a question of what happens with the environment around the oil," he said. "There is a contribution from the environment. It turns out that one of the transformations for the oil is the bio-transformation—the cellular and microorganisms that live in the environment. They contribute heavily to oil's degradation."

By combining information about oil's photo and the biological transformations, researchers can better understand how the degradation occurs and what effect it has. Although the process is currently being tested on oil spills in saltwater settings, Fernandez-Lima said it could be used in any environment, including onshore spills in freshwater settings.

"The idea of the tool is to break down the crude oil sample," he explained. "What we want to do is determine the transformation process and the final fate of the original crude oil. We want to build a model of the structure we start with, the structure we go through and what will be the final product."

What's unique about the technology is that it combines two techniques to analyze how sunlight and microorganisms degrade and transform oil in the environment. It uses high-resolution trapped ion mobility spectrometry (TIMS) and ultrahigh-resolution Fourier transform ion cyclotron resonance mass spectrometry (FT-ICR MS) to separate and characterize complex mixtures.

LAMOR
ENVIRONMENTAL SOLUTIONS

COAST GUARD

LAMOR CORP –WORLD LEADERS IN OIL SPILL RESPONSE

Lamor is committed to oil spill response, recovery and clean-up operations worldwide. We provide immediate on-site expertise to execute solutions that protect the environment and our ecosystems. Our in-depth knowledge and experience coupled with investment in technologically advanced oil clean-up response equipment assures success in all scenarios and climatic conditions.

Lamor (Larsen Marine Oil Recovery) Corporation, established in 1982, provides solutions for optimal oil spill prevention, response, recovery, and remediation. Over the past three decades, Lamor has developed, manufactured, and supplied the most efficient and effective oil spill response technology worldwide. Lamor focuses on supplying the highest quality of innovative prevention and recovery equipment and providing services for contingency planning, risk assessments, equipment maintenance and servicing, response training, and oil spill response support. Lamor has vast global network, delivering equipment and responding to emergency spills in over 106 countries. Lamor provides international services through a large network of subsidiaries and hubs that include locations in China, USA, Brazil, Colombia, Ecuador, Oman, Peru, Russia, Turkey, and the UK. www.lamor.com.

In India, Lamor is proud to be servicing the Indian Coast Guard (the agency responsible for combating marine oil pollution in Indian maritime waters) with its advanced and proven range of Oil Pollution Control Products.

Lamor Corporation AbRihkamatori 2, 06100 Porvoo, Finland. PH : +358 20 765 0100, +358 20 765 0129, Email : nk@spilcaretech.com, Web : www.lamor.com.



Spill response not 'magic bullet'; mitigating impact of oil key goal



The waters between North Pender Island and Saturna Island became the site of an imagined crude-oil spill this week as Kinder Morgan's contractor prepared for a big one.

About 90 personnel worked aboard 20 vessels to practise cleaning up 2,500 tonnes of oil, or about 17,500 barrels, in Plumper Sound.

It's an important exercise, even as critics point out that no level of preparation will protect the coast from a major spill of diluted bitumen — one of the fuels carried by the Trans Mountain pipeline, whose behaviour in coastal conditions is still being studied.

The drill was practice for Western Canadian Marine Response Corporation, which must do

on-water simulations once every two years to maintain its Transport Canada certification.

Previous exercises have occurred in Howe Sound and Vancouver Harbour.

"These are the vessels that would be deployed from Vancouver and our base in Duncan to respond to that size of a spill," said WCMRC spokesman Michael Lowry, aboard a water taxi observing the exercise.

He pointed to three types of vessels working Wednesday: skimming vessels that recover product, response barges that hold equipment and store recovered oil, and work boats that carry booms, help put skimmers on the water and work at shoreline protection.

As part of \$100 million promised by Kinder Morgan if the pipeline is built, WCMRC will build six new response bases, including a 24/7 base in Sidney.

It is also working to prove it can clean up 20,000 tonnes of oil in three days — an increase over the 10,000 tonnes of oil in 10 days required by Transport Canada.

One tank on a tanker has a 10,000-tonne capacity, so the requirement would be for a situation like a collision, where two tankers dump into the sea.

"We have equipment now to do 26,000 tonnes, so it's not a huge step, certainly the equipment is in place. There will always be factors beyond our control — weather is certainly a huge influence on spill response, just as it would be on a forest fire. If you've got really high waves, you'll have to pause the operation," Lowry said.

He said it's important not to think of spill clean-up as a "magic bullet."

"There's certainly going to be impacts, let's not pretend that's not going to happen. Our role is to mitigate those impacts and make sure we can protect those areas as much as possible."

OR&R Meets with Alaska Regional Response Team in Sitka

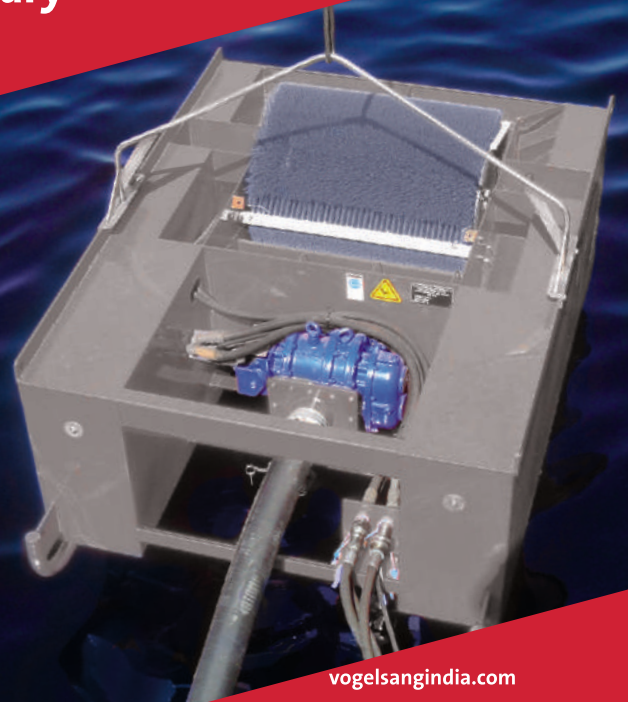
The Alaska Regional Response Team (ARRT) met in Sitka, AK, to discuss policies for preparedness and response to discharges of oil and releases of other hazardous substances in Alaska and surrounding waters.

The ARRT is an interagency, intergovernmental coordinating group consisting of representatives of 14 federal agencies, the State of Alaska Department of Environmental Conservation and federally-recognized tribes responsible for developing and maintaining policies for preparedness and response to discharges of oil and releases of other hazardous substances in Alaska and surrounding waters. The agenda included updates on recent responses in Alaska and on-going contingency planning efforts. The ARRT meetings rotate around the state to allow input from communities and provide RRT members a chance to meet local responders.

Sitka, in southeast Alaska, is a busy fishing port and cruise destination, and ship traffic is a concern for responders.

Vogelsang rotary lobe pumps

Lightweight, compact and versatile pumps for offshore and onshore skimming applications



vogelsangindia.com



ANNOUNCING THE



Oil Spill India 2018

5th International Exhibition & Conference

August - September 2018, India

Leading Global Forum on Spill, Salvage, Wreck Removal - Response & Mitigation



OSI 2016 STATS



PAST STRATEGIC, INDUSTRY & ASSOCIATE PARTNERS

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

PAST PARTICIPATING ORGANISATIONS

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Organised By:



Contact:

Mr. Ravi Kumar
M: +91 9711433860
E: ravi@itenmedia.in

Event Partner:



For more information visit www.oilspillindia.org