



ISCO NEWSLETTER

The Newsletter of the International Spill Response Community
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News

SIX CANDIDATES FOR POSITION OF IMO SECRETARY-GENERAL

By the deadline of 31 March 2011, six candidates had been nominated by their Governments for the position of Secretary-General of the International Maritime Organization (IMO).

The election for the post will be held at the 106th session of the 40-Member strong IMO Council, which meets from 27 June to 1 July 2011. The decision of the Council will be submitted to the IMO Assembly, which meets for its 27th session from 21 to 30 November 2011, for its approval.

The nominations received are listed below in alphabetical order by candidates' name.

Candidate	Government
Mr. Lee Sik Chai	Republic of Korea
Mr. Andreas Chrysostomou	Republic of Cyprus
Mr. Neil Frank Ferrer	Republic of the Philippines
Mr. Jeffrey Lantz	United States of America
Mr. Esteban Pacha Vicente	Kingdom of Spain
Mr. Koji Sekimizu	Japan

The present incumbent, Mr. Efthimios E. Mitropoulos, ends his second four-year term as Secretary-General on 31 December 2011.

FOR YOUR DIARY - DATE FIXED FOR ISCO AGM

The 2011 Annual General Meeting of the International Spill Control Organization will take place at 3.30 pm on Wednesday 25 May 2011 at the International Oil Spill Conference at Portland, Oregon, USA.

The AGM will be held in the Doubletree Hotel, Room Mt. Hood and Mt. St. Helens. The Notice of Meeting, Agenda and other meeting papers will soon be sent out to all Members.

JAPAN: NUCLEAR DISASTER UPDATE

TEPCO Chairman Tsunehisa Katsumata (r.) speaks during a news conference at the company's head office in Tokyo, March 30. TEPCO owns Japan's earthquake- and tsunami-damaged Fukushima Daiichi nuclear complex, where experts Wednesday logged the highest radiation yet in nearby seawater.



A matter for the UN Security Council? The *New York Times* of March 27 reported "Engineers have been battling to control the six-reactor Fukushima complex since it was damaged by a March 11 earthquake and tsunami that also left more than 27,000 people dead or missing across Japan's devastated northeast.

A magnitude 6.5 earthquake rocked the region on Monday, the latest in a series of aftershocks, and officials warned it would trigger a 50-cm (two feet) tsunami wave.

Radiation at the nuclear plant has soared in recent days. Latest readings on Sunday showed contamination 100,000 times normal in water at reactor No. 2 and 1,850 times normal in the nearby sea. Those were the most alarming levels since the crisis began.

"I think maybe the situation is much more serious than we were led to believe," said one expert, Najmedin Meshkati, of the [University of Southern California](#), adding it may take weeks to stabilize the situation and the United Nations should step in. "This is far beyond what one nation can handle - it needs to be bumped up to the [U.N. Security Council](#). In my humble opinion, this is more important than the Libya no fly zone." [Read more](#)

Sending in the US Marines. *ABC World News* of March 30 reports on the mobilization of US Marines – "The ongoing [nuclear crisis in Japan](#) has prompted the U.S. military to send a marine unit specializing in nuclear emergency response to be on hand if needed, ABC News has learned.

Trained in personnel decontamination and monitoring of radiation levels, the team would not be involved in the efforts to stabilize the reactors at the [troubled Fukushima Daiichi nuclear plant](#).

Approximately 155 Marines from the Marines' Chemical Biological Incident Response Force (CBIRF) received their deployment orders for Japan earlier today and are scheduled to arrive on Friday". [Read more](#)

Resin, tarps and robots. The *Christian Science Monitor* comments on some unusual fixes being considered – "As radiation continues to spread from the [crippled Fukushima Daiichi nuclear plant](#), Japanese and US officials are considering novel measures to try to corral the contamination.

Sticky resin may help. On Thursday, Tokyo Electric Power (TEPCO) plans to test it, spraying this adhesive substance on an area of ground near the plant, said Japanese nuclear safety authorities on Wednesday. The idea is to glue down any fallen radioactive particles.

A giant tarp has also been proposed. Japanese Chief Cabinet Secretary Yukio Edano said nuclear experts might cover reactor buildings with a special material to try and stop emission of radioactive substances.

The US is readying a shipment of radiation-hardened robots to help the Japanese fight this problem, said Peter Lyons, acting assistant secretary of the US Department of Energy. "We're moving expeditiously to ship not only the robots but also operators who [would] train Japanese operators," Dr. Lyons told a Senate committee on Tuesday.

That officials are considering such unusual approaches reflects the fact that, despite some [progress in restoring electricity](#) to the Fukushima complex, the nuclear crisis has no end in sight. [Read more](#)

IAEA warns of further leaks. An article in *The Japan Times* of April 1 warns of further leaks "The U.N. nuclear watchdog agency warned that a potential uncontrolled chain reaction at the Fukushima No. 1 power plant could cause further radiation leaks and increase the risk to workers.

A partial meltdown of fuel in the No. 1 reactor building may be causing the isolated reactions, Denis Flory, nuclear safety director for the U.N.'s International Atomic Energy Agency, told a news conference in Vienna.

Nuclear experts call these reactions "localized criticality." They consist of a burst of heat, radiation and sometimes an "ethereal blue flash," according to the U.S. Energy Department's Los Alamos National Laboratory website. Twenty-one workers worldwide have been killed by "criticality accidents" since 1945, the site says.

"We share the view with the IAEA that various phenomena are possible," Chief Cabinet Secretary Yukio Edano said at a news conference Thursday. "At the same time, the organization said they don't have clear signs that show such a phenomenon is happening."

The IAEA "emphasized that the nuclear reactors won't explode," Edano said.

Radioactive chlorine found March 25 in the reactor No. 1 turbine building suggests chain reactions continued after the reactor shut down, physicist Ferenc Dalnoki-Veress of the James Martin Center for Nonproliferation Studies in Monterey, Calif., wrote in a paper released Monday. Radioactive chlorine has a half-life of 37 minutes, according to the report.

The Nuclear and Industrial Safety Agency said there is no possibility of uncontrolled chain reactions.

Boron, an element that absorbs neutrons and hinders nuclear fission, has been mixed with cooling water to prevent accidental chain reactions, Hidehiko Nishiyama, a spokesman for the agency, said Thursday.

Pressure vessels as well as external containment of reactors 1 through 3 may be damaged, the Nuclear Safety Commission said Wednesday.

Edano on Wednesday ruled out the possibility that the two undamaged reactors, units 5 and 6, will be salvaged.

Reactors 1 through 4 suffered explosions, presumed meltdowns and corrosion from seawater sprayed on radioactive fuel rods after the March 11 earthquake and tsunami cut power to cooling systems.

Workers have averted the threat of a total meltdown of fuel rods by injecting water into the damaged reactors for the past two weeks. The complex's six units are connected with the power grid and two are using temporary motor-driven pumps. Work to repair the plant's monitoring and cooling systems has been hampered by discoveries of hazardous radioactive water.

Dismantling the plant and decontaminating the site may take 30 years and cost Tokyo Electric Power Co. more than ¥1 trillion, according to engineers and analysts. The government hasn't ruled out pouring concrete over the entire facility as one way to shut it down, Edano said.

Dumping concrete on the plant would serve a second purpose: it would trap contaminated water, said Tony Roulstone, an atomic engineer who directs the University of Cambridge's master's program in nuclear energy. "They need to immobilize this water and they need something to soak it up," he said. "You don't want to create another hazard, but you need to get it away from the reactors."

The process will take longer than the 12 years needed to decommission the Three Mile Island reactor in Pennsylvania following a partial meltdown in 1979, said Hironobu Unesaki, a nuclear engineering professor at Kyoto University. [Read more](#)

EARTHQUAKES: IRAN NOT SAFE FOR NUCLEAR ENERGY

Following the catastrophe in Fukushima it is time to add a new dimension to the already controversial discussion about the Iranian nuclear program. This should serve as further push for the international community to strengthen its efforts to halt Iranian nuclear development.

As the world anxiously looks to the nuclear reactors in Japan, with a broken down cooling system following an earthquake and tsunami, the dangers and vulnerabilities of nuclear energy production once again come to mind. A country, which is equally prone to earthquakes like Japan, is Iran.

Although less advanced and experienced in this technology, the Islamic Republic is pushing for rapid development of its own nuclear program, including uranium enrichment, and plans to build a dozen new nuclear power plants in the near future.

The Iranian nuclear program, since its discovery by an Iranian opposition group in 2002, is under intense international scrutiny as many world powers believe the Islamic Republic intends to build nuclear weapons; an allegation which Tehran denies. The international community has imposed four sets of sanctions against the country. The US, EU, Canada, Japan and other countries implemented additional sanctions to slow down the development of the nuclear program and to convince the Iranian government to come back to the negotiating table and cooperate with the International Atomic Energy Agency (IAEA). Yet demands from the IAEA are repeatedly dismissed by the Iranian regime and inspectors are hindered from checking all of the requested facilities.

The Iranian nuclear program presents dangers not only because of the regional strategic changes that would occur once Iran is in possession of nuclear weapons, particularly as it acts in defiance of the international community and IAEA rules and regulations, and because it would likely trigger a nuclear arms race in the region, but also because of the threat that earthquakes, technological malfunctions and human errors could pose to the Iranian people and Iran's neighbors.

Iran is one of the most seismic countries in the world. The Islamic Republic experiences at least one slight earthquake every day and even moderate earthquakes have killed thousands of people in more remote areas. Iran is surrounded by tectonically active zones and has experienced several heavy earthquakes in the recent years striking all sides of the country. Probably the most well known earthquake happened in Bam in December 2003 killing approximately thirty thousand people. A 6.5 magnitude earthquake hit Iran as recently as December 2010.

Surprisingly little attention is paid by scholars and the media to how earthquakes could possibly affect Iran's nuclear facilities. Iranian officials were quoted in articles proposing the relocation of the entire city of Tehran to a different area because it is built on a seismological unstable area. However, there was no mentioning about the safety of a nuclear research plant next to the city.

[Read more](#)

LEBANON: GOVERNMENT TAKES STEP TOWARD MARITIME SAFETY

Lebanon has taken an important first step to bring its shipping fleet in line with international standards on pollution and safety, two maritime experts have told The Daily Star.

Jonathan Pace and Albert Bergonzo, project officers at Regional Marine Pollution Emergency Response Center for the Mediterranean Sea (REMPEC) and part of the European Union-funded SafeMed project, are in Beirut at the request of the Lebanese government.

Flanked by a team of Mediterranean maritime experts, the pair is conducting a weeklong training session, which ends Thursday and is designed to prepare Lebanon for an upcoming audit of its fleet.

The audit, testing safety and environmental standards of ships flying the Lebanese flag, will become mandatory for all countries belonging to the U.N.-backed International Maritime Organization in 2015. [Read more](#)

Lebanon was also in the news recently following an oil spill - A major cleanup effort from the Civil Defense Force Thursday recovered more than 20,000 liters of kerosene following warnings by environmental officials that a spill offshore from a major oil depot could become a major environmental disaster. The spill, which occurred Wednesday as a fuel tanker was sending kerosene along an underwater pipeline to oil depots in Dora, north of Beirut, sent several thousand liters of oil into the eastern Mediterranean. [Read more](#)

DEATHS OF DOLPHINS IN GULF OF MEXICO UNDERESTIMATED

March 30 - As dead dolphins wash up along the shores of the Gulf of Mexico, it is tempting to attribute the deaths to the Deepwater Horizon oil spill. That remains to be seen, but a new study suggests that whatever the cause, as many as 50 times more whales and dolphins may have been killed than is being reported.

The most recent report on wildlife deaths from the US government's task force states that 100 marine mammals have been collected dead in the Gulf of Mexico. Yet according to a paper in *Conservation Letters*, as few as one in 50 carcasses are ever recovered, suggesting the US government's figure is an underestimation of total deaths.

Now, it shouldn't be surprising that not all the carcasses of dead marine mammals will eventually wash up on our shores.

Rob Williams, who was at the University of British Columbia in Vancouver, Canada when he did the research, has tried to estimate how many deaths have been missed. Recovered carcasses are "the tip of the iceberg," he says. "We need a way to estimate the size of the iceberg." To prove his point, Williams and colleagues compared the number of carcasses found in the gulf each year with year-on-year estimates of marine mammal deaths produced by the US National Oceanic and Atmospheric Administration. On average, only 2 per cent were found.

That implies a 50-fold underestimate of the current death toll in the Gulf of Mexico, but it may not be that bad because the Gulf has been closely monitored since the disaster. Having said that, species that live in the open sea are more likely to die without trace. [Read more](#)

USA: COAST GUARD RESPONDS TO REPORTS OF OIL IN GULF OF MEXICO

March 28 - The Coast Guard and the Louisiana Oil Spill Coordinator's Office are working with Anglo-Suisse Thursday, to oversee the cleanup of oil that has made landfall in the Grand Isle, La. area.

Tests were done by LSU and Coast Guard marine safety labs and confirmed that the samples collected from West Delta 117 and samples collected from both Elmers Island and Grand Isle are a match. Anglo-Suisse has been identified as the responsible party for this cleanup.

"While a responsible party has been identified, the Coast Guard and state of Louisiana, in consultation with parish, local, and tribal leaders, has direct oversight of the response and we are working to ensure the effective and thorough cleanup of all of the affected areas," said Coast Guard Capt. Jonathan Burton, federal on scene coordinator for the response. [Read more](#)

BULGARIA DELAYS OIL PIPELINE DECISION FOR ENVIRONMENT STUDY

[Bulgaria](#) delayed for the second time a decision on whether to build an oil pipeline bypassing [Turkey's](#) Bosphorus Strait. It extended the deadline for an environmental impact report by two months. The government ordered a study into the proposed pipeline from the Bulgarian Black Sea port of Burgas to the Greek port of Alexandroupolis, on the Aegean, because of concern that an [oil spill](#) would harm the country's Black Sea resorts. [Read more](#)

FRANCE: THE FRENCH PUBLIC SAYS NO TO 'LE FRACKING'

Natural gas may be poised for a post-Fukushima boom, but even it faces hurdles. In the U.S. and Europe, concerns have been growing about the environmental impact of drilling for gas trapped in shale formations. And in France, José Bové—the French environmental activist, farmer, McDonald's antagonist, and onetime Presidential candidate—has brought the nascent search for shale gas and oil to a halt.

As Total and other energy companies readied rigs outside Paris and started to plan for drilling in southern France, local environmental groups began raising concerns about damage to water tables from the hunt for hydrocarbons locked in shale rock. On Jan. 22, Bové started a petition that now has about 100,000 signatures; within weeks the government ordered an exploration moratorium. On Mar. 11, Prime Minister François Fillon extended the ban until June, when parliamentary and ministry reports on the environmental and economic effects are due. [Read more](#)

COST-EFFECTIVE RISK ACCEPTANCE CRITERIA COULD REDUCE TANKER OIL SPILLS

New research compared criteria for accepting environmental risk as tools to evaluate cost-effective measures that would prevent tanker oil spills. The results suggest that the Cost of Averting one Tonne of Spilled oil (CATS) criterion is the best candidate, as it appears to be both practical and meaningful in actual risk assessments, and can lead to sensible recommendations.

The transport of harmful substances, such as crude oil, refined products and chemicals, by the shipping industry, brings environmental risks. In recent years, the average number of oil spills from the ships above 700 tonnes has fallen to 3.7 per year, compared with 25 per year in the 1970s. This drop can be attributed to the International Convention for the Prevention of Pollution by Ships (MARPOL 73/78)1 regulations.

However, to make informed decisions based on risk assessment and cost-effectiveness a system is needed to select measures that further reduce the likelihood and severity of future oil spills. It is therefore important to establish appropriate acceptance criteria to use when selecting these measures. Acceptance criteria are measurable definitions of what must be done for a project to be acceptable to those affected by the project. In this case, acceptance criteria would be used to determine whether an oil spill prevention measure is worth implementing, as far as stakeholders are concerned.

The study, conducted under the EU SAFEDOR project2, compared acceptance criteria for oil spills and identified the CATS approach as the best candidate. It is scientifically verifiable, easy to communicate to a wide audience, important to stakeholders, and accounts for effects over an appropriate time period and geographical region. It has recently been successfully applied in a risk assessment for developing or evaluating rules and regulations (Formal Safety Assessment – FSA) conducted in Denmark3 on tankers.

To update the value of CATS, the researchers reviewed existing models that could be used to estimate the total cost of oil spills. Costs vary considerably across accidents and depend on various factors, such as the type of oil and location of the spill. Costs cover the cost of clean-up, loss in ecosystem services and claims for compensation to fisheries and for loss of tourism, for example. The researchers compared results from these models with the actual cost for 185 recorded oil spills around the world since 1970. These spills involved vessels with a single hull or a double side/double bottom equivalent.

The results revealed that the actual total costs were lower than those predicted by the models. The costs were found to depend on the type of accident, agreeing with previous studies. From this, the researchers were able to update the target value of CATS to about \$80,000/tonne (around €56,600/tonne) by including the inherent uncertainties of oil spill costs and reflecting the stakeholders' willingness to spend more on resources to prevent accidents.

CATS can convert direct and indirect costs into a non-market value and the proposed CATS criterion can be used for evaluating the cost-effectiveness of new measures. However, a holistic approach to accidental risks should be considered in the acceptance criteria, while designing tankers that aim to reduce oil spill risks. Even though CATS is a practical approach, its value could be further improved when a more detailed oil spill cost database becomes available. Nevertheless, it yields reasonable results and sensible recommendations concerning a range of alternative risk control options. [Read more](#)

Events

Events are listed here as soon as possible after they are notified to ISCO and will usually only be featured once in this column. To find a more comprehensive listing of upcoming events, including ones previously announced in this column, [click HERE](#)

THE 14th INTERNATIONAL CONFERENCE ON ENVIRONMENTAL REMEDIATION AND RADIOACTIVE WASTE MANAGEMENT

September 25-29, 2011. Reims, France. ICEM promotes a broad global exchange of information on technologies, operations, management approaches, economics and public policies in the critical areas of environmental remediation and radioactive waste management. The conference provides a unique opportunity to foster cooperation among specialists from countries with mature environmental management programs and those from countries with emerging programs. Attendees include scientists, engineers, technology developers, equipment suppliers, government officials, utility representatives and owners of environmental problems. [More info](#)



In this issue of the ISCO Newsletter we are printing No. 20 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](#)

KNOWLEDGE OF WATER-IMMISCIBLE SYSTEMS (CHAPTER 20)

Having submitted a shipboard gravity separator to the preliminary evaluation reviewed in article 19, WSL constructed a test rig with circulating capacity of 100 tonnes per hour according to the IMO specification of two test oils, a test sequence, and alternate methods of oil-in-water analysis, the specified oils being a fuel oil of viscosity 950 seconds Redwood No 1 at 37.8°C and a light distillate (diesel) oil of specific gravity ~ 0.83 at 15° C.

After filling the test equipment and separator with water and exposing it to a flow of 100% oil for 5 min to saturate all internal surfaces, the oil content is reduced to 0.5 to 1.0% oil in water for 15 min before evaluating performance at this inlet concentration by taking three outlet samples for analysis at prescribed intervals over a 30 min period before flow is stopped and air allowed to enter. A further settling period at 25% oil is then followed by another 30 min evaluation in which three analysis samples are taken as before. Thereafter, 100% oil is input for 5 min prior to taking a further sample, while another is taken in a 15 min period after which the oil flow is stopped. Then follows a sequence of 25% oil for 15 min alternating with no oil for 15 min with one sample being taken at the end of 3 hours. Throughout, an observation window is used to check the general operation of the equipment. The above cycle must then be repeated with the light distillate except for the 3 hour automatic sequence. Sample analysis is by infrared absorption or by visible/ultraviolet after extraction into fluorisol or chloroform respectively (c.f. article 16).

Now, given that preliminary investigations had suggested that shipboard gravity separators would not meet the IMO limit of 100ppm without additional downstream coalescence and/or filtering (c.f. article 19) and given that the importance of droplet size was confirmed by de-rating feed pumps from 1000 rpm to 600 rpm to produce larger droplets (c.f. article 18), the WSL team now obtained the results of Table 1 when evaluating the performance of a 10 tonne per hour separator without/with downstream coalescence and with its feeder pump running at 600 rpm and at 100 rpm.

Sample No	Oil Inlet %	Oil Outlet ppm			
		600 rpm		100 rpm	
		No Coalescer	Coalescer	No Coalescer	Coalescer
1	0.5		2.5		4
2	0.5	135	2.5	870	5
3	0.5		2.5		4
4	25		8.0		7
5	25	630	4.8	2335	23
6	25		2.5		77
7	100		2.5		33
8	Zero		2.5		69

Thus, we see that coalescence with pump de-rating is still insufficient to comply with the 100ppm limit. On the other hand, Table 2 shows the results obtained for another 10 tonnes per hour separator without and with downstream coalescence and filtering.

Sample No	Oil Inlet %	Oil Outlet ppm	
		No Coalescence/Filtering	Coalescence/Filtering
1	0.5		2.5
2	0.5		2.5
3	0.5		2.5
4	25		2.5
5	25	1932	2.5
6	25		3.75
7	100		2.57
8	Zero		2.5

Thus, we see that the lower limits of 15ppm and even 5ppm are met by a combination of downstream coalescence and filtering, though the gravity stage must be protected from inappropriate pumps and modes of pumping to maximise the life of the downstream units while the highest oil-content mixtures are best discharged to shore-reception wherever possible.

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.

THE HAZARDS OF HAZMAT

A story by Cpl. Tyler Hiavac.

Master Sgt. Thomas Auletta, one of the chief hazardous materials operations instructors with Environmental Services Detachment D, evaluates two students as they investigate a mock chemical spill during a hazardous material response training scenario.

CAMP CRABBS, Antigua and Barbuda – The hazardous material training begins with a simple scenario.

Several Marines from the Environmental Services Detachment D posing as victims begin to cough and cry for help after a simulated chemical spill occurs inside the barracks. The 31 students, who are a collection of soldiers, firemen and police from Antigua and Barbuda, have spent the past two weeks training with the ESD Marines and rush to the scene.



Three of them suit up in respirators and oxygen tanks and walk inside the barracks to investigate the situation. The students know they are being evaluated and are relatively calm as they walk inside the barracks. Once inside, however, their state of calm quickly changes.

“You’ve now been exposed to a chemical environment,” says Master Sgt. Thomas Auletta, one of the chief hazardous materials operations instructors with ESD Det. D, as he surveys the students.

It’s a simple statement, but it causes the students to hesitate and pause for seconds with only the sounds of heavy breathing through respirators filling the air. Then the training kicks in and the students are on the move again. Surveying the scene, they see two Marines on the floor, unresponsive, and two Marines coughing on the simulated fumes. The responders quickly assist the Marines and help them walk out of the barracks.

Outside an ambulance and fire truck are already on the scene and groups of students quickly move about and take up different response roles. Some take up positions at decontamination stations and others set up a command center to find out what chemical they are dealing with as well as preparing to coordinate with any media or government representatives who may show up looking for information on the situation.

One of the initial responders, Cortwright Anthony, a corporal with the Antigua and Barbuda Fire Department, exits the barracks after rescuing the mock victims and heads to a decontamination stations where he is quickly cleansed of any chemicals. Anthony, like the other students, has spent the last 15 days learning about such topics as recognizing hazardous materials, confined spaces and rappelling training, how to wear proper protective gear and more in an effort to become a certified HAZMAT Response Technician. After catching his breath, Anthony offers an initial assessment of how he and the initial responders performed.

“It was a good experience and I had a lot of adrenaline flowing. We saw the substance and the patients on the ground. We worked as a team and tried to save them. I’d give us a grade B, as there is always room for improvement.”

Anthony and his group aren’t the last ones to go inside the barracks, however. There are still two non-responsive victims inside who need to be retrieved and a second group suits up to retrieve them. At this point the agent has been identified as most likely ammonia and the newest groups upgrades their level of protection as they will be exposed longer while trying to rescue the non-responsive victims.

The suits the students put on are thick, bright yellow and full bodied, without an inch of skin exposed. The suits strongly resemble most protective suits seen in any movie dealing with a viral outbreak.

Although they offer a higher level of protection, the suits are thick, awkward to move in, and amplify the already formidable Caribbean heat.

After removing the victims, who at this point are identified as deceased, the scenario began to wind down as the last group of responders were decontaminated and the surviving victims were sent to the ‘hospital’ for further treatment.

Fire Department Constable Anderson Tuitt, who was one of the two students who removed the last victims, described how he felt during his portion of the exercise.

“The suit was hot...real hot,” Tuitt said, laughing and sipping on water as sweat ran down his face. “This training felt real...the suits, the unknown chemicals...I would love more of this training. I felt really comfortable working with them (the other students). They took it (the training) seriously and we really brought everything together. I came with limited skills but now I have a lot more than I came in with.”

As the students began to wrap up the training, Master Gunnery Sgt. James McEniry, the staff noncommissioned officer in charge of ESD Det. D, offered his evaluation of the student’s performance. McEniry and many of the instructors with ESD Det. D have civilian

jobs as police officers and firefighters and have dealt with real-life HAZMAT situations before. Their experience makes them a good fit for ESD Det. D, whose mission in a nut shell is to provide environmental and hazmat material expertise to Marine Corps units, as well as to assist in any disaster or HAZMAT response if called upon.

“The training went awesome. We managed to put everything they (the students) were taught into a simulated real-life incident,” said McEniry. “The training the students learned here they could have to apply at any time. For example one day we taught a radiation class and then the next day the news started talking about situation with the reactors in Japan after the quake. With the hurricanes and earthquakes that happen in the Caribbean, this training is real for these guys.”

The HAZMAT training scenario was conducted as part of exercise Tradewinds 2011.

Tradewinds is a joint-combined, interagency exercise involving U.S. personnel from the Marine Corps, Coast Guard, Army, Navy, Air Force, National Guard, Joint-interagency Task Force-South, Naval Criminal Investigative Service and the Federal Bureau of Investigation along with forces from: Antigua and Barbuda (host nation), Bahamas, Barbados, Belize, Canada, Colombia, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Jamaica, Nicaragua, Panama, St. Kitts-Nevis, St. Lucia, St. Vincent, Suriname, Trinidad-Tobago.

Reproduced with acknowledgements to DVIDS News. [Source](#)

Publications

RADIATION DOZE CHART

This is a chart of the ionizing radiation doze a person can absorb from various sources. Chart by Randall Munroe, with help from Ellen, Senior Reactor Operator at the Reed Research Reactor, who suggested the idea and provided a lot of a lot of the sources. The chart is for general education only. [Download](#)

US EPA TECHDIRECT APRIL 1, 2011

New technical, policy and guidance resources related to the assessment and remediation of contaminated soil, sediments and ground water. [Download](#)

Products and services

TC-055, 57' MK II VERY SHALLOW MULTI-SYSTEM SKIMMER (VSMSS)



1 April 2011, Gulfport, Mississippi: Trinity Offshore announced today the launching of TC-055, a 57' MK II Very Shallow Draft Multi-System Skimmer (VSMSS) built for Marine Spill Response Corporation (MSRC), the nonprofit started in 1990 to offer spill response services and mitigate damage to the environment. To provide its services, MSRC relies on its extensive inventory of owned response equipment; Trinity Offshore's newest member of the MSRC fleet meets the very exacting vessel specifications and procedural requirements for the often delicate operation of shallow skimming.

Trinity's in-house engineering department was asked to design and engineer a multi-purpose shallow draft skimmer based on

MSRC's experience with the oil crisis in the Gulf of Mexico in 2010 and the lack of vessels capable of collecting oil in the shallow bays and sounds of the Gulf Coast. The resulting vessel has maximum transit speeds of 25 mph (light), 12 mph (with two tanks fully loaded), a collection speed of 2-3 mph and a range (light) of 250 miles at 20 mph. The TC-055, 57' MK II fully complies with United States Coast Guard certification as a 46CFR Subchapter "C" vessel as defined by MVI Policy Letter 1-95 as an OSRV, *Small Skimming Vessel*. As such, she is USCG certified to carry class "D" and "E" cargo.

Key to a skimmer's functionality, the MK II's recovered oil storage capacity is 10,450 gallons/249 bbls in four built-in tanks (including forward sump tank). Crucial, Inc. furnished and installed skimming equipment includes one (1) diesel driven model DHP-29 diesel hydraulic power unit, air start and S.S. tubing under deck; two (2) bow-mounted model SB-36/15, 3'-wide hydraulic driven absorbent belt skimmer systems including deck skids; and, one (1) supplied boom reel.

Products and services (cont)

Outfitted fully for all oil response at shallow depths, the MK II is also designed for a complement of three and features an 8'-wide air-conditioned and elevated wheelhouse with steering console, seat/storage compartment (including self-contained head) and aft door and window. Her ceiling is insulated with side facing aft and aft facing windows that open (forward and side facing forward windows are fixed).

The TC-055, MK II VSMSS was built at Trinity Offshore's New Orleans, Louisiana shipyard. Trinity Offshore has a 30-year history in building state-of-the-art oil spill recovery vessels. Since the oil crisis in the Gulf, Trinity has designed and delivered a total of 22 vessels to assist in the clean-up effort. These include: seven (7) 35' Shuttle Work barges, eleven (11) 30-ft Marco/Kvichak Rapid Response Skimmers, one (1) 56-ft Very Shallow Multi-System Skimmer and three (3) 249 bbl oil recovery mini-barges. More info: www.trinityoffshorellc.com.

Company news

ITALIAN GROUP WINS RAW-WOOL PATENT TO CLEAN OIL SPILLED AT SEA

An Italian group was granted a patent for developing technology that collects oil spilled in the sea based on the water repellent qualities of raw wool.

The patent was developed by Luciano Donatelli, Mauro Rossetti and Mario Ploner utilizing the water-repelling properties of coarse wool, which can absorb 10 times its weight in oil, through [Gruppo Creativi Associati](#), according to a presentation today in Milan.

"We are able, in a fairly simple way, to recuperate a good 950 tons of oil, equal to 6,350 barrels, with 10 tons of greasy wool because the same wool can be used at least 10 times over," Rossetti said. "The oil can then be processed straight away in any refinery." [Read more](#)

Stop press

SOUTH ATLANTIC OCEAN, APRIL 3 2011. PENGUIN RESCUE OPERATION UNDER WAY AFTER SOUTH ATLANTIC OIL SPILL

An update from CNN News just received from Don Johnston of ISCO Associate Member, DG and Hazmat Group.



On an island chain located halfway between Africa and Argentina, local authorities say a massive penguin rescue operation is under way.

A mix of island officials and resident volunteers are struggling to save tens of thousands of Northern Rockhopper penguins threatened by an oil spill in the remote stretches of the south Atlantic, roughly 1,500 miles west of Cape Town, South Africa.

The islands' conservation director said at least 300 penguins have died after a cargo ship leaked thousands of tons of heavy oil, diesel fuel and soya bean near Nightingale Island, a British territory part of the Tristan da Cunha archipelago. [Read more](#)

ISCO Announcements

Readers are invited to send in stories and articles that will be of interest to the spill response community. To help achieve a better balance of newsletter content – marine and inland, your editor would particularly like to hear from readers who are involved in response to inland oil and chemical spills. For example, sometimes response challenges create a need for development of innovative approaches. If you have a story that you would like to share, please send it to the editor, john.mcmurtrie@spillcontrol.org

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